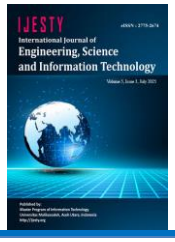
International Journal of Engineering, Science and Information Technology
Volume 5 No. 3 (2025) pp. 235-248
ISSN 2775-2674 (online)
Website: http://ijesty.org/index.php/ijesty
DOI: https://doi.org/10.52088/ijesty.v5i3.905
Research Paper, Short Communication, Review, Technical Paper



Evaluating User Satisfaction and Public Engagement in Local Government Social Media

Azwar Aman, Khairul Imtihan*, Muhamad Rodi

Departmewnt of Information Systems, STMIK Lombok, Praya, Indonesia.

**Corresponding author Email: khairulimtihan31@gmail.com*

The manuscript was received on 8 January 2025, revised on 22 February 2025, and accepted on 20 May 2025, date of publication 6 June 2025

Abstract

Through an integrated model, this study investigates the determinants of user satisfaction, trust, engagement, and continuance intention in local government social media. While social media has become a vital tool for digital governance, its adoption in semi-urban regions often encounters institutional and behavioral challenges. To address this gap, this research develops and validates a framework combining the Technology Acceptance Model (TAM), the E-Government Adoption Model (e-GAM), and the Importance-Performance Map Analysis (IPMA). Using a quantitative approach and PLS-SEM via SmartPLS 4.0, data from 355 respondents in Central Lombok Regency, Indonesia, were analyzed across eleven constructs, including perceived usefulness, ease of use, Transparency, interaction, digital literacy, and trust. Results show that Transparency, Interactivity, and digital literacy significantly impact user satisfaction, whereas traditional TAM factors were insignificant. User satisfaction strongly influenced both public engagement and continuance intention. The IPMA findings highlight Transparency and Interactivity as high-priority areas for improvement. These results underline the importance of institutional attributes in shaping digital public engagement, particularly in developing contexts.

Keywords: *Technology Acceptance Model, E-Government Adoption, Digital Literacy, Public Engagement, User Satisfaction.*

1. Introduction

The public sector's digital transformation continues redefining governance paradigms in the 21st century. By embedding information and communication technologies (ICTs) into service delivery processes, governments aim to increase operational efficiency, foster Transparency, and enhance citizen participation [1][2][3]. Among these technologies, social media has gained recognition as a powerful tool for enabling rapid, two-way communication between public institutions and citizens [4][5][6]. Yet, local government use of social media remains suboptimal, particularly in its ability to cultivate trust, satisfaction, and sustained civic engagement [7][8].

In Indonesia, social media platforms such as Facebook, Instagram, Twitter, and TikTok have become central to local e-government strategies. Various departments in Central Lombok Regency, including those responsible for communications, education, health, and tourism, actively utilize these platforms to disseminate information, address public concerns, and engage with citizens [9][10]. However, despite increased social media activity, early findings indicate that meaningful interaction and user satisfaction are still limited. Many government-run accounts operate through one-way communication, failing to offer reciprocal dialogue or timely responses to citizen inquiries, which further erodes public trust and undermines the effectiveness of digital communication efforts [11][12][13].

While the availability of digital infrastructure is essential, scholars increasingly argue that citizen acceptance, experience, and satisfaction are the actual determinants of digital service success [14][15][16]. The Technology Acceptance Model (TAM) has been widely applied to examine user adoption of digital innovations, focusing on perceived usefulness (PU) and perceived ease of use (PEOU) as core constructs [17][18][19]. However, growing empirical evidence shows that the original TAM is insufficient to capture the complexity of user behavior in public service settings, particularly in regions where digital readiness, institutional trust, and digital literacy vary widely. Extensions of TAM, incorporating constructs such as perceived Risk, trust in government, Transparency, and system quality, have thus been proposed to improve its explanatory power [20][21].

Despite these advancements, limited scholarly attention has been given to using social media as a government service platform, especially in developing or semi-urban regions where infrastructural disparities persist. Moreover, studies rarely examine how users' digital trust, interaction, and literacy contribute to satisfaction, nor do they incorporate performance-based analyses that provide actionable feedback for service enhancement [22][23][24]. This presents a significant research gap in understanding the behavioral and experiential dimensions of local government social media use.

To address this gap, this study introduces a novel analytical framework that integrates TAM with the E-Government Adoption Model (e-GAM), aiming to assess how external variables, including trust in government, digital literacy, Interactivity, and perceived Risk, shape the user's experience with government social media. Unlike prior studies that narrowly focus on PU and PEOU, this research incorporates a more complex mediation structure that includes user trust and perceived experience, along with final behavioral intentions such as continued use. Further, this study applies Importance-Performance Map Analysis (IPMA) to identify service components that are both critical to users and underperforming in practice, offering practical insights for service refinement [25][26]. Conducted in Central Lombok Regency, the findings are expected to contribute theoretically and practically by enriching the TAM-eGAM literature with new constructs and providing empirical recommendations to improve digital public engagement through government social media platforms..

2. Methods

2.1 Research Design

This study employed a quantitative approach with an explanatory research design to examine the influence of various factors on user satisfaction, public engagement, and continuance intention in using local government social media. The proposed conceptual model integrates the Technology Acceptance Model (TAM), the E-Government Adoption Model (e-GAM), and several context-specific variables such as digital literacy and interaction. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS version 4.0 [14][27][28].

2.2 Conceptual Framework and Hypotheses Development

This study proposes an integrated conceptual model that combines the Technology Acceptance Model (TAM) with the E-Government Adoption Model (e-GAM) and contextual factors relevant to digital communication via local government social media. The proposed framework focuses on the multidimensional nature of user satisfaction and behavior when engaging with government social platforms. Specifically, the model incorporates eleven variables: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Trust in Government (TG), Transparency (T), Perceived Risk (PR), Interactivity (INT), Digital Literacy (DL), User Trust (UT), User Satisfaction (US), Public Engagement (PE), and Continuance Intention (CI).

The conceptual framework is illustrated in Figure 1 and is developed based on the empirical and theoretical findings from recent studies in e-government, social media engagement, and digital trust. The framework positions User Satisfaction as the central mediating construct influenced by technical and contextual variables, with downstream effects on Public Engagement and Continuance Intention.

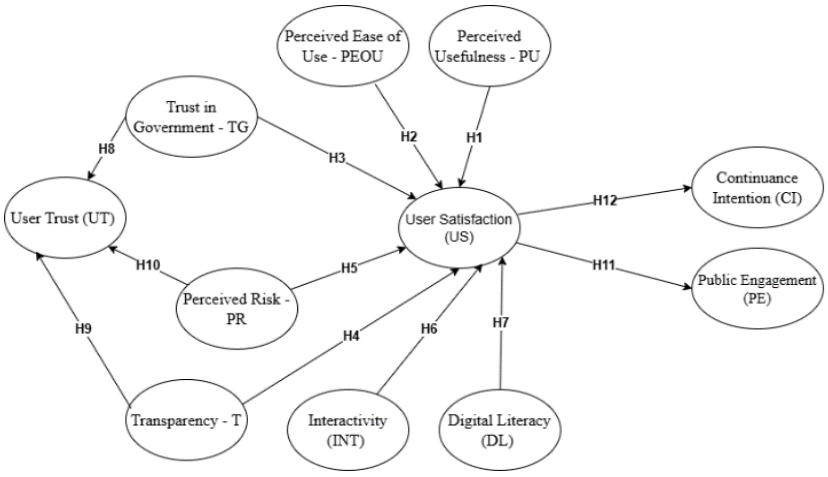


Fig 1. Conceptual framework

H1 : Perceived Usefulness (PU) positively influences User Satisfaction (US).
According to Davis (1989), Perceived Usefulness refers to the extent to which a user believes that using a particular system enhances task performance. In the context of social media used by government institutions, PU captures the perceived value of the platform in helping users understand public policies, access public services, or engage in civic matters. Prior research suggests that the more useful a digital platform is perceived to be, the more likely users are to be satisfied with their experience [18][26].

H2 : Perceived Ease of Use (PEOU) positively influences User Satisfaction (US).
Ease of use is a critical driver of system acceptance. When users find a platform intuitive and easy to navigate, their cognitive effort is reduced, which enhances satisfaction [19], [28]. In e-government settings, particularly for semi-urban and rural users, the clarity and accessibility of social media interfaces determine whether the platform can meet their informational and participatory needs.

H3 : Trust in Government (TG) positively influences User Satisfaction (US).
Trust in government is a core determinant in digital service adoption. Users are more likely to feel satisfied with a platform if they believe the content and intentions behind it are credible and serve the public good [21][27]. Trust builds perceived legitimacy, which in turn shapes user perceptions and satisfaction.

H4 : Transparency (T) positively influences User Satisfaction (US).
Transparency, including openness of information and clarity of communication, strengthens user confidence and satisfaction [1][20]. Transparency ensures users are informed and feel included in governance processes in digital government platforms, thus enhancing satisfaction with the platform.

H5 : Perceived Risk (PR) negatively influences User Satisfaction (US).
Perceived Risk concerns data misuse, misinformation, or service unreliability. When users perceive higher risks, they may feel insecure or hesitant to interact with government platforms, thus reducing satisfaction [29], [30].

H6 : Interactivity (INT) positively influences User Satisfaction (US).
Interactive features such as comments, feedback loops, and responsiveness are vital for user engagement and satisfaction. Social media that supports two-way communication leads to higher satisfaction as users feel their voices are acknowledged [31], [32].

H7 : Digital Literacy (DL) positively influences User Satisfaction (US).
Digital literacy enables users to effectively navigate, evaluate, and utilize information on digital platforms. Users with higher digital skills are more confident and derive greater satisfaction from digital services [14].
In digital public services, trust is not only a direct determinant of user satisfaction but also a vital mediator in explaining how institutional qualities shape users' perceptions and behaviors. User trust refers to the extent to which users believe that the government will act competently, benevolently, and with integrity when delivering information and services through social media [30]. Several scholars have emphasized that the perception of trustworthiness mediates the relationship between contextual antecedents such as Transparency, Risk, and institutional credibility and overall user experience [20], [22].

H8 : Trust in Government (TG) positively influences User Trust (UT).
When citizens perceive government agencies as honest, reliable, and committed to the public interest, their trust in the digital environment strengthens. Empirical studies confirm that institutional trust positively predicts users' general trust in e-government platforms [33]. As such, this hypothesis posits that public confidence in government behavior significantly shapes digital trust.

H9 : Transparency (T) positively influences User Trust (UT).
Transparency in communication, particularly the openness, clarity, and completeness of government information on social media, enhances users' confidence in public institutions [34]. Studies have shown that transparent interactions foster positive perceptions, reinforcing users' willingness to trust and engage in digital participation [20].

H10 : Perceived Risk (PR) negatively influences User Trust (UT).
Perceived Risk, such as concerns over data misuse, misinformation, or government surveillance, poses significant barriers to digital trust [30]. When users perceive higher levels of uncertainty or vulnerability in online services, they are less likely to develop trust toward the system, regardless of its intended benefits.
Satisfaction represents a user's emotional response to the overall quality of service interaction and is a consistent predictor of behavioral outcomes in technology acceptance [18]. In the context of government social media, satisfied users are not only more likely to maintain usage but also to actively participate and advocate for such platforms within their communities.

H11 : User Satisfaction (US) positively influences Public Engagement (PE).
Satisfaction with government communication increases users' willingness to engage in participatory actions, such as sharing content, commenting, or providing feedback [35]. Prior studies have shown that perceived responsiveness and content relevance enhance civic involvement, especially when satisfaction levels are high.

H12 : User Satisfaction (US) positively influences Continuance Intention (CI).
The likelihood that users will continue using government social media is closely linked to their satisfaction with past experiences [36]. Satisfied users exhibit stronger behavioral intentions to revisit, rely on, and recommend the platform for future interactions. This relationship is foundational in TAM and is further reinforced in government contexts where sustained usage is critical for digital transformation success.

The conceptual model developed in this study integrates core components of the Technology Acceptance Model (TAM) with the E-Government Adoption Model (e-GAM), further enhanced by context-specific constructs, including trust in government, Transparency, perceived Risk, Interactivity, digital literacy, and user trust. This integration addresses the limitations of earlier TAM-based studies, which often overlooked behavioral and socio-political factors in digital service adoption, especially within developing regions. A key novelty of this research lies in its hypothesis structure, which not only examines the direct influence of perceived usefulness and perceived ease of use on user satisfaction but also explores less commonly tested relationships, such as the adverse effect of perceived Risk on both user satisfaction and user trust (H5 and H10). In addition, the mediating role of user trust (H8–H10) introduces a critical psychological mechanism that connects institutional attributes (e.g., transparency and government trustworthiness) with citizens' digital engagement behavior. Another significant contribution is articulating public engagement and continuance intention (H11 and H12) as outcome variables, positioning user satisfaction as an endpoint and a determinant of deeper civic participation. This perspective shifts the focus from short-term technology acceptance to long-term behavioral outcomes in digital governance.
Applied in the semi-urban setting of Central Lombok Regency, the model responds to the lack of empirical research in similar socio-geographic contexts. The twelve hypotheses proposed offer a multidimensional lens to understand user behavior on government social media. Through the application of Importance-Performance Map Analysis (IPMA), the study provides a practical framework to identify strategic service gaps. Ultimately, this research contributes a theoretically grounded and contextually nuanced roadmap for advancing user-centered digital governance.

2.3 Sampling and Data Collection

The target population of this study consisted of users of official local government social media accounts in Central Lombok Regency, Indonesia. A total of 355 respondents participated in the survey. Data was collected online from February to March 2025 using a structured questionnaire distributed through various digital platforms and local community social media groups. A purposive sampling technique was applied, with the primary eligibility criterion being that participants must have accessed or interacted with official local government social media accounts.
Table 1 presents the demographic profile of respondents. Regarding gender, 51.2% were male and 48.8% were female. The age distribution was concentrated in the 26–35 (42.2%) and 36–45 (41.3%) age groups. Most respondents held a bachelor's degree (59.7%), and the majority occupational category was "Others" (56.2%). Regarding interaction behavior, 60.2% of respondents stated that their primary purpose for engaging with government social media was to obtain information on public policies and services.

Table 1. Characteristics of Respondents

Variable	Category	Frequency
Gender	Male	182
	Female	173
Age	18–25 years	25
	26–35 years	150
	36–45 years	147
	46–55 years	30
	>55 years	3
Education	Elementary School	2
	High School	73
	Diploma	64
	Bachelor	212
	Master	4
	Doctorate	0
Occupation	Student	9
	Civil Servant	71
	Private Employee	58
	Entrepreneur	18
	Others	199
Interaction Frequency with Government Social Media	Rarely (1–2 times in 6 months)	82
	Occasionally (1–2 times in 3 months)	103
	Frequently (1–2 times per month)	87
	Very Frequently (Almost every week)	83
Preferred Government Social Media Platform	Facebook	90
	Instagram	95
	Twitter/X	0
	TikTok	11
	YouTube	27
	WhatsApp	55
	Telegram	49
	Others	28
Primary Purpose of Interaction	Obtaining public service and policy information	214
	Getting regional news	90
	Participating in government programs	27
	Submitting feedback or complaints	0
	Interacting with officials or public	5
	Others	19

The sample size meets the minimum requirements for analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM), with a statistical power of ≥ 0.95, following the recommendations of Hair et al. (2019)[37].

2.4 Research Instruments and Measurement

This study employed a structured questionnaire comprising eleven latent variables measured using 28 indicators, each assessed on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). All indicators were adapted from validated prior studies and contextualized to reflect user interaction with local government social media platforms in Indonesia.

The variable Perceived Usefulness (PU) captures the extent to which users believe that using government social media enhances the efficiency and effectiveness of accessing public information and services [14], [18]. Perceived Ease of Use (PEOU) refers to users' perceptions that government social media platforms have user-friendly interfaces that require minimal effort, which is a key factor in forming user satisfaction [19]. Trust in Government (TG) and Transparency (T) were developed based on digital trust theories and sound governance frameworks, highlighting how trust in public institutions and Transparency of information drive citizens' acceptance of digital services [38]. Perceived Risk (PR) was measured by indicators capturing users' concerns regarding potential data misuse, misinformation, and privacy threats when using government social media [30]. The Interactivity (INT) construct reflects perceptions of the quality of two-way communication features provided by government social media platforms, including responsiveness to comments, polls, and opportunities for public discourse [31]. Digital Literacy (DL) assesses users' ability to understand, evaluate, and utilize government social media's features effectively, an essential precondition for meaningful digital engagement [14].

The variables User Trust (UT) and User Satisfaction (US) represent core mediators in the model, describing users' confidence and satisfaction with the quality of interactions and content delivered through government social media [33]. Public Engagement (PE) and Continuance Intention (CI) serve as dependent variables, capturing the extent of active user participation and their intention to continue using government social media platforms over time [22]. An overview of the measurement indicators and sources for each latent variable is presented in Table 2.

Table 2. Research Variables

Latent Variables	Code	Indicator	Source
Perceived Usefulness (PU)	PU1	Government social media provides relevant and accurate information.	[16][19]
	PU2	Government social media helps in understanding public policies.	
	PU3	Government social media improves the efficiency of accessing public services.	
Perceived Ease of Use (PEOU)	PEOU1	Government social media has an interface that is easy to understand.	[18][22]
	PEOU2	Using government social media requires little effort.	
Trust in Government (TG)	TG1	I trust that the information provided on government social media is reliable.	[7][39]
	TG2	I believe the government has good intentions in delivering public information.	
Transparency (T)	T1	The information shared by the government on social media is clear and understandable.	[40][41]
	T2	The government openly shares essential information through social media.	
Perceived Risk (PR)	PR1	I am concerned that the information on government social media may be inaccurate.	[21]
	PR2	I doubt the protection of personal data when using government social media.	
	PR3	I feel there is a risk of information misuse by irresponsible parties.	
Interactivity (INT)	INT1	The government is responsive to user comments and questions on social media.	[42][43]
	INT2	Government social media offers discussion or polling features for public engagement.	
	INT3	I feel government social media enables effective two-way communication.	
Digital Literacy (DL)	DL1	I have sufficient skills to search and understand information from government social media.	[36][38]
	DL2	I know how to use social media features to interact with the government.	
	DL3	I feel comfortable using social media as a source of government information.	
User Satisfaction (US)	US1	I am satisfied with how the government presents information on social media.	[18][26]
	US2	Government social media meets my expectations in delivering information and services.	
User Trust (UT)	UT1	I am confident that the information provided by the government on social media is trustworthy.	[39][44]
	UT2	Government social media consistently delivers reliable information.	
	UT3	I do not find the information from government social media to be misleading or biased.	
Public Engagement (PE)	PE1	I often comment on or like posts on government social media.	[43][45]
	PE2	I have shared information from government social media with others.	
	PE3	I am interested in discussing public policy through government social media.	
Continuance Intention (CI)	CI1	I intend to continue using government social media in the future.	[14][46]
	CI2	I believe using government social media will continue to benefit me.	

Source(s): Table created by authors

2.5 Data Analysis

The data in this study were analyzed using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach via the SmartPLS 4.0 software. This method was selected for its capacity to handle complex models involving multiple latent constructs and indicators and its robustness in situations where multivariate normality cannot be assumed [47]. The analysis proceeded in two stages. First, the measurement model (outer model) was evaluated to assess construct reliability, convergent validity, and discriminant validity. Second, the structural model (inner model) was evaluated to determine the significance of path coefficients, the coefficient of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2). This study also employed Importance-Performance Map Analysis (IPMA) to enrich the findings and enhance their policy relevance. IPMA extends the PLS-SEM framework by providing insights into each independent construct's importance (total effects) on the target endogenous construct and its performance (average latent scores). This approach is particularly valuable in digital public service contexts, where it helps identify strategic improvement areas by jointly considering the importance and performance of service attributes [25][32].

3. Results and Discussion

3.1 Measurement Model

The measurement model was evaluated to assess the reliability and validity of each latent construct. Indicator reliability was examined through outer loading values, all exceeding the minimum threshold of 0.708, as Hair et al. (2019) recommended, indicating adequate item reliability. Construct reliability was assessed using Cronbach's Alpha (CA) and Composite Reliability (CR), which surpassed the commonly accepted threshold of 0.70. Additionally, Dijkstra Henseler's rho_A values were above 0.70 for all constructs, further confirming internal consistency [32][45][48]. All constructs' Average Variance Extracted (AVE) values were greater than the 0.50 minimum criterion, indicating satisfactory convergent validity.

Notably, several constructs in this study, such as User Satisfaction and Transparency, exhibited CR values exceeding 0.95. Although this condition could raise concerns regarding potential indicator redundancy, a detailed content examination revealed that the indicators,

while conceptually related, each represent distinct nuances of user experience and institutional openness, particularly relevant in the context of local government social media use in semi-urban areas such as Central Lombok Regency. Therefore, all indicators were retained to preserve the contextual richness and conceptual breadth intended in the instrument's design. These findings align with previous studies that employed a similar approach in the public service context, particularly social media-based government communication. For example, studies by Nguyen et al. (2024) and Zubir and Abdul Latip (2024) reported high internal consistency levels for User Satisfaction and Transparency, which were nonetheless accepted as conceptually and contextually valid constructs. A summary of the measurement model evaluation results is presented in Table 3.

Table 3. Construct Reliability and Validity Test

Latent Variables	Indicator	Outer Loadings	CA	ρA	ρC	AVE
Perceived Usefulness (PU)	PU1	0.927	0.897	0.899	0.936	0.829
	PU2	0.915				
	PU3	0.890				
Perceived Ease of Use (PEOU)	PEOU1	0.942	0.839	0.864	0.925	0.860
	PEOU2	0.912				
Trust in Government (TG)	TG1	0.910	0.830	0.850	0.921	0.854
	TG2	0.938				
Transparency (T)	T1	0.955	0.907	0.908	0.956	0.915
	T2	0.958				
Perceived Risk (PR)	PR1	0.918	0.927	0.933	0.953	0.872
	PR2	0.951				
	PR3	0.931				
Interactivity (INT)	INT1	0.941	0.938	0.938	0.960	0.889
	INT2	0.945				
	INT3	0.943				
Digital Literacy (DL)	DL1	0.911	0.912	0.915	0.945	0.851
	DL2	0.926				
	DL3	0.930				
User Satisfaction (US)	US1	0.969	0.936	0.936	0.969	0.940
	US2	0.970				
User Trust (UT)	UT1	0.845	0.815	0.830	0.889	0.727
	UT2	0.871				
	UT3	0.841				
Public Engagement (PE)	PE1	0.895	0.886	0.890	0.929	0.814
	PE2	0.916				
	PE3	0.895				
Continuance Intention (CI)	CI1	0.953	0.897	0.897	0.951	0.907
	CI2	0.952				

Note(s): CA = Cronbach's alpha; ρA = Composite Reliability rho_A/ Dijkstra–Henseler's rho;
ρC = Composite Reliability rho_C/ CR = composite reliability; AVE = average variance extracted.

As shown in Table 4, the results of the Fornell Larcker criterion indicate that the square root of the Average Variance Extracted (AVE) for each construct is greater than the correlations between that construct and any other construct in the model. This finding confirms that each latent construct possesses sufficient discriminant validity and uniquely explains its associated indicators. Furthermore, the Heterotrait Monotrait (HTMT) ratios for all construct pairs were below the conservative threshold of 0.85, and none exceeded the liberal threshold of 0.90, as Henseler, Ringle, and Sarstedt (2015) recommended. These low HTMT values suggest that the constructs are conceptually distinct and adequately capture different aspects of the underlying theoretical framework [48].

Table 4. Discriminant validity (HTMT - Fornell–Larcker criterion)

	Latent Variables	PU	PEOU	TG	T	PR	INT	DL	US	UT	PE	CI
Heterotrait-monotrait (HTMT) ratio	Perceived Usefulness (PU)											
	Perceived Ease of Use (PEOU)	0.896										
	Trust in Government (TG)	0.873	0.871									
	Transparency (T)	0.742	0.792	0.837								
	Perceived Risk (PR)	0.274	0.366	0.260	0.306							
	Interactivity (INT)	0.716	0.790	0.799	0.777	0.443						
	Digital Literacy (DL)	0.829	0.852	0.878	0.754	0.375	0.845					
	User Satisfaction (US)	0.724	0.789	0.799	0.847	0.347	0.872	0.860				
	User Trust (UT)	0.768	0.786	0.829	0.810	0.174	0.757	0.807	0.833			
	Public Engagement (PE)	0.589	0.642	0.566	0.569	0.343	0.579	0.541	0.578	0.816		
	Continuance Intention (CI)	0.611	0.611	0.635	0.564	0.137	0.506	0.610	0.576	0.893	0.800	
Fornell–Larcker criterion	Perceived Usefulness (PU)	0.911										
	Perceived Ease of Use (PEOU)	0.782	0.927									
	Trust in Government (TG)	0.751	0.730	0.924								
	Transparency (T)	0.669	0.696	0.731	0.957							
	Perceived Risk (PR)	0.251	0.323	0.233	0.280	0.934						
	Interactivity (INT)	0.657	0.706	0.710	0.717	0.414	0.943					
	Digital Literacy (DL)	0.749	0.745	0.769	0.689	0.345	0.782	0.922				
	User Satisfaction (US)	0.664	0.706	0.711	0.781	0.325	0.818	0.796	0.969			
	User Trust (UT)	0.663	0.664	0.699	0.712	0.164	0.680	0.719	0.751	0.852		

Public Engagement (PE)	0.525	0.557	0.488	0.513	0.309	0.530	0.487	0.529	0.684	0.902	
Continuance Intention (CI)	0.547	0.534	0.547	0.509	0.125	0.465	0.553	0.528	0.753	0.715	0.952

Note(s): PU: Perceived Usefulness; PEOU: Perceived Ease of Use; TG: Trust in Government; T: Transparency; PR: Perceived Risk; INT: Interactivity; DL: Digital Literacy; US: User Satisfaction; UT: User Trust; PE: Public Engagement; CI: Continuance Intention.
Source(s): SmartPLS 4 output, processed by the authors

As a complementary assessment, Table 5 presents the results of discriminant validity testing using cross-loadings. The analysis demonstrates that each indicator exhibits the highest loading on its corresponding latent construct compared to its loadings on other constructs. This confirms the absence of problematic cross-loadings and reinforces the assertion that all indicators in the model appropriately contribute to measuring their intended constructs.

Table 5. Discriminant validity (Cross Loadings)

Latent Variables	**Indicator**	**PU**	**PEOU**	**TG**	**T**	**PR**	**INT**	**DL**	**US**	**UT**	**PE**	**CI**
Perceived Usefulness (PU)	PU1	0.927	0.711	0.702	0.612	0.247	0.611	0.684	0.627	0.614	0.460	0.483
	PU2	0.915	0.716	0.680	0.604	0.187	0.575	0.678	0.605	0.629	0.481	0.508
	PU3	0.890	0.708	0.670	0.613	0.252	0.609	0.686	0.580	0.568	0.496	0.506
Perceived Ease of Use (PEOU)	PEOU1	0.771	0.942	0.718	0.697	0.287	0.699	0.703	0.714	0.645	0.537	0.526
	PEOU2	0.670	0.912	0.629	0.585	0.316	0.602	0.680	0.583	0.583	0.492	0.458
Trust in Government (TG)	TG1	0.710	0.683	0.910	0.618	0.180	0.602	0.670	0.578	0.597	0.434	0.515
	TG2	0.683	0.669	0.938	0.726	0.244	0.703	0.745	0.724	0.689	0.466	0.499
Transparency (T)	T1	0.629	0.661	0.679	0.955	0.249	0.662	0.619	0.726	0.676	0.482	0.474
	T2	0.651	0.671	0.720	0.958	0.286	0.709	0.698	0.768	0.685	0.499	0.500
Perceived Risk (PR)	PR1	0.208	0.270	0.163	0.285	0.918	0.372	0.306	0.283	0.135	0.271	0.084
	PR2	0.240	0.289	0.244	0.256	0.951	0.378	0.328	0.296	0.151	0.301	0.153
	PR3	0.251	0.339	0.239	0.245	0.931	0.406	0.331	0.327	0.170	0.293	0.112
Interactivity (INT)	INT1	0.621	0.675	0.688	0.712	0.397	0.941	0.721	0.780	0.653	0.530	0.460
	INT2	0.574	0.632	0.631	0.640	0.404	0.945	0.700	0.742	0.621	0.468	0.395
	INT3	0.660	0.687	0.688	0.675	0.370	0.943	0.789	0.790	0.650	0.498	0.458
Digital Literacy (DL)	DL1	0.671	0.668	0.681	0.591	0.295	0.710	0.911	0.704	0.644	0.419	0.458
	DL2	0.703	0.718	0.697	0.615	0.372	0.736	0.926	0.721	0.641	0.486	0.526
	DL3	0.699	0.677	0.746	0.695	0.290	0.718	0.930	0.774	0.703	0.444	0.543
User Satisfaction (US)	US1	0.648	0.684	0.707	0.769	0.310	0.784	0.770	0.969	0.721	0.509	0.504
	US2	0.639	0.684	0.672	0.746	0.320	0.802	0.773	0.970	0.734	0.516	0.519
User Trust (UT)	UT1	0.610	0.660	0.699	0.705	0.231	0.708	0.796	0.792	0.845	0.465	0.535
	UT2	0.536	0.494	0.536	0.585	0.088	0.530	0.489	0.612	0.871	0.687	0.716
	UT3	0.537	0.518	0.520	0.495	0.073	0.459	0.501	0.461	0.841	0.631	0.705
Public Engagement (PE)	PE1	0.479	0.464	0.421	0.437	0.312	0.497	0.434	0.459	0.575	0.895	0.594
	PE2	0.459	0.518	0.438	0.431	0.284	0.446	0.432	0.450	0.614	0.916	0.665
	PE3	0.483	0.521	0.457	0.512	0.245	0.488	0.451	0.516	0.657	0.895	0.672
Continuance Intention (CI)	CI1	0.516	0.525	0.485	0.474	0.129	0.464	0.528	0.505	0.709	0.692	0.953
	CI2	0.526	0.491	0.557	0.496	0.109	0.422	0.526	0.500	0.726	0.669	0.952

Note(s): PU: Perceived Usefulness; PEOU: Perceived Ease of Use; TG: Trust in Government; T: Transparency; PR: Perceived Risk;
INT: Interactivity; DL: Digital Literacy; US: User Satisfaction; UT: User Trust; PE: Public Engagement; CI: Continuance Intention.
Source(s): SmartPLS 4 output, processed by the authors

A bootstrapping procedure with 10,000 resamples was conducted to assess the outer loadings' significance. The results indicate that all indicators are statistically significant ($p < 0.001$), reinforcing their validity in representing the respective latent constructs. Discriminant validity was further examined using the Fornell Larcker criterion, which revealed that the square root of the AVE for each construct exceeded its correlations with other constructs. Additionally, the Heterotrait Monotrait (HTMT) ratio values for all construct pairs were below the conservative threshold of 0.85 and the liberal threshold of 0.90, confirming satisfactory discriminant validity. Given that the measurement model meets all the required criteria for reliability and validity, it is deemed appropriate to proceed with the structural model (inner model) analysis to explore the interrelationships among constructs and their implications for user behavior on local government social media platforms.

3.2 Structural Model

Multicollinearity diagnostics were performed before evaluating the structural relationships to ensure no redundancy issues among the latent constructs. All constructs' Variance Inflation Factor (VIF) values ranged from 1.000 to 3.887. Although a few values slightly exceeded the conservative threshold of 3.0, they remain well below the maximum tolerance limit of 5.0, as the literature recommends. Therefore, it can be concluded that multicollinearity does not pose a significant concern in this model. The structural model was evaluated using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach, implemented using SmartPLS 4.0 software. A bootstrapping procedure with 10,000 resamples was conducted to estimate t-values, p-values, and 95% confidence intervals for assessing the statistical significance of the structural paths. The results of the structural model evaluation, including path coefficients, significance levels, R^2 values, effect sizes (f^2), and predictive relevance (Q^2), are presented in Table 6. A visual representation of the validated structural model is shown in Figure 2.

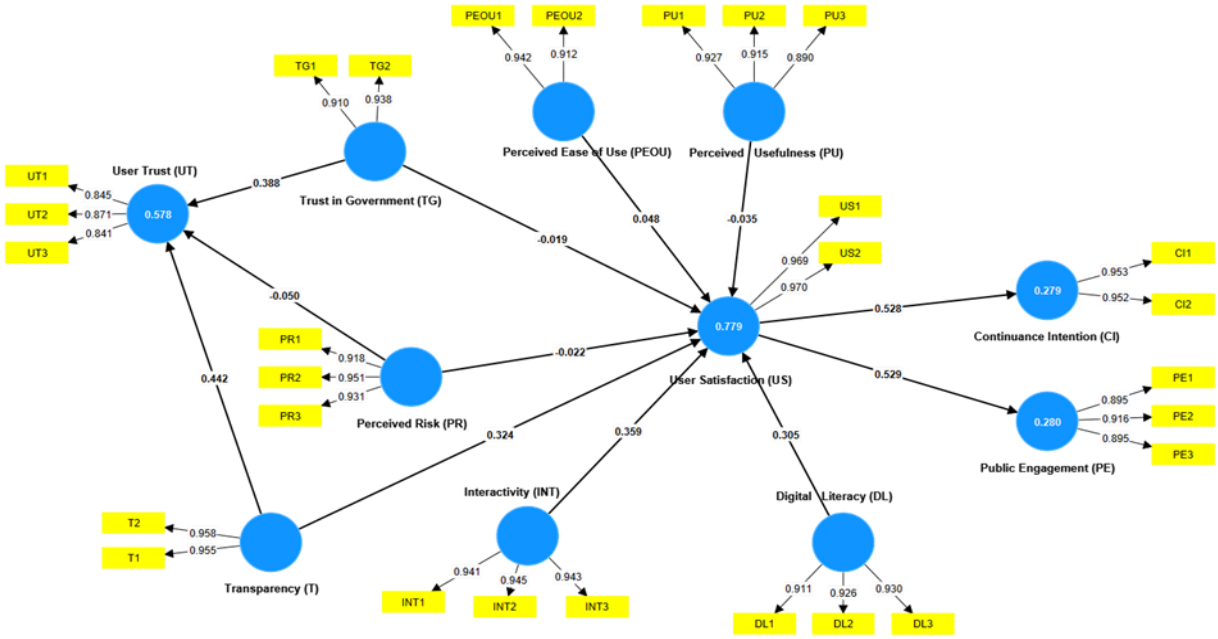


Fig 2. Structural model result in SmartPLS 4 output (bootstrapping 10,000 subsamples)

Based on the results presented in Table 6, three constructs Transparency ($\beta = 0.324$, $t = 3.830$, $p < 0.001$), Interactivity ($\beta = 0.359$, $t = 3.602$, $p < 0.001$), and Digital Literacy ($\beta = 0.305$, $t = 3.333$, $p < 0.001$) were found to have a positive and statistically significant influence on User Satisfaction. These findings support Hypotheses H4, H6, and H7 and underscore the importance of institutional Transparency, interactive communication features, and users' digital competence in shaping satisfaction with local government social media platforms.

Conversely, Perceived Usefulness (H1: $\beta = -0.035$, $t = 0.561$, $p > 0.05$), Perceived Ease of Use (H2: $\beta = 0.048$, $t = 0.641$, $p > 0.05$), and Trust in Government (H3: $\beta = -0.019$, $t = 0.289$, $p > 0.05$) did not exhibit a significant influence on User Satisfaction. These findings contradict classical TAM assumptions, which posit ease of use and perceived usefulness as primary antecedents of satisfaction. A plausible explanation is that government social media platforms are evaluated more on institutional attributes such as credibility, Transparency, and public engagement rather than purely technical benefits. Perceived Risk was also found to have no significant effect on either User Satisfaction (H5: $\beta = -0.022$, $t = 0.747$, $p > 0.05$) or User Trust (H10: $\beta = –0.050$, $t = 1.419$, $p > 0.05$). These results are inconsistent with prior studies suggesting that perceived risks can diminish trust and digital engagement. One possible interpretation is that the informational nature of government social media, often involving low-sensitivity content, leads users to perceive fewer risks or feel indifferent about privacy concerns in such contexts.

Regarding the mediating construct of User Trust, both Trust in Government ($\beta = 0.388$, $t = 6.856$, $p < 0.001$) and Transparency ($\beta = 0.442$, $t = 7.859$, $p < 0.001$) had significant positive effects on users' trust in government digital platforms. Thus, Hypotheses H8 and H9 are supported. These findings reinforce the importance of institutional credibility and Transparency in fostering user trust in public digital services. User Satisfaction was also shown to significantly influence both Public Engagement (H11: $\beta = 0.529$, $t = 9.642$, $p < 0.001$) and Continuance Intention (H12: $\beta = 0.528$, $t = 8.649$, $p < 0.001$). These results validate the pivotal role of user satisfaction in promoting loyalty and active participation in digital government services. The strength of these relationships highlights that enhancing user experience quality improves satisfaction and reinforces public engagement and the long-term use of government social media platforms.

The overall quality of the structural model was assessed using the coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2). The R^2 value for User Satisfaction was 0.779, indicating that the independent variables explained 77.9% of its variance. Meanwhile, the R^2 values for Public Engagement (0.280) and Continuance Intention (0.279) reflect moderate explanatory power. The f^2 values demonstrate the individual contributions of predictor variables to their respective endogenous constructs, where constructs like Transparency, Interactivity, and Digital Literacy showed medium to small effect sizes on User Satisfaction. In addition, the Q^2 values confirm that the model possesses adequate predictive relevance, particularly for Public Engagement (Q^2 = 0.245), affirming its robustness in predicting key behavioral outcomes. The Q^2 value for Public Engagement exceeded 0.25, indicating medium predictive relevance [30], while Q^2 for other constructs remained low or negligible. A summary of these metrics is provided in Table 6.

Table 6. Structural Model Evaluation

Relationships	β	T-value	Confidence interval (β) (95%)	Variance Explained (R^2)	R^2 adjusted	Predictive Relevance (Q^2)	Effect size (f^2)	Confidence interval (f^2) (95%)	VIF
PU → US	-0.035	0.561^{ns}	[-0.151; 0.093]	0.779	0.775	0.000	0.002	[0.000; 0.029]	3.361
PEOU → US	0.048	0.641^{ns}	[-0.095; 0.195]			0.000	0.003	[0.000; 0.049]	3.407
TG → US	-0.019	0.289^{ns}	[-0.145; 0.108]			0.000	0.000	[0.000; 0.029]	3.500
T → US	0.324	3.830^{***}	[0.144; 0.473]			0.000	0.173	[0.033; 0.393]	2.749
PR → US	-0.022	0.747^{ns}	[-0.079; 0.036]			0.000	0.002	[0.000; 0.023]	1.240
INT → US	0.359	3.602^{***}	[0.171; 0.559]			0.398	0.173	[0.043; 0.425]	3.371
DL → US	0.305	3.333^{***}	[0.128; 0.490]			0.220	0.108	[0.020; 0.304]	3.887
TG →UT	0.388	6.856^{***}	[0.271; 0.490]	0.578	0.574	0.000	0.165	[0.069; 0.309]	2.155
T →UT	0.442	7.859^{***}	[0.333; 0.555]			0.000	0.209	[0.104; 0.357]	2.211
PR → UT	-0.050	1.419^{ns}	[-0.117; 0.022]			0.711	0.005	[0.000; 0.030]	1.087
US → PE	0.529	9.642^{***}	[0.418; 0.634]	0.280	0.278	0.245	0.389	[0.212; 0.671]	1.000
US → CI	0.528	8.649^{***}	[0.400; 0.640]	0.279	0.277	0.000	0.386	[0.190; 0.693]	1.000

Note(s): n = 10,000 subsample; Significance based on T-value: ns = non-significant ($p \geq 0.05$), *p < 0.05, **p < 0.01, ***p < 0.001. β : Path Coefficients; VIF: Variance Inflation Factor. PU: Perceived Usefulness; PEOU: Perceived Ease of Use; TG: Trust in Government; T: Transparency; PR: Perceived Risk; INT: Interactivity; DL: Digital Literacy; US: User Satisfaction; UT: User Trust; PE: Public Engagement; CI: Continuance Intention.Source(s):
SmartPLS 4 output, processed by the authors

The overall results of hypothesis testing indicate that eight out of twelve proposed hypotheses were statistically supported at the significance level of $p < 0.05$. Table 8 presents each structural path's path coefficients, t-statistics, and p-values. A summary of these hypothesis results is provided in Table 7 below.

Table 7. Hypotheses Results

Hypothesis/Relationships	β (Path Coefficients)	T-value	Confidence interval (95%)	Supported
H1. Perceived Usefulness (PU) → User Satisfaction (US)	-0.035	0.561^{ns}	[-0.151; 0.093]	No
H2. Perceived Ease of Use (PEOU) → User Satisfaction (US)	0.048	0.641^{ns}	[-0.095; 0.195]	No
H3. Trust in Government (TG) → User Satisfaction (US)	-0.019	0.289^{ns}	[-0.145; 0.108]	No
H4. Transparency (T) → User Satisfaction (US)	0.324	3.830^{***}	[0.144; 0.473]	Yes
H5. Perceived Risk (PR) → User Satisfaction (US)	-0.022	0.747^{ns}	[-0.079; 0.036]	No
H6. Interactivity (INT) → User Satisfaction (US)	0.359	3.602^{***}	[0.171; 0.559]	Yes
H7. Digital Literacy (DL) → User Satisfaction (US)	0.305	3.333^{***}	[0.128; 0.490]	Yes
H8. Trust in Government (TG) → User Trust (UT)	0.388	6.856^{***}	[0.271; 0.490]	Yes
H9. Transparency (T) → User Trust (UT)	0.442	7.859^{***}	[0.333; 0.555]	Yes
H10. Perceived Risk (PR) → User Trust (UT)	-0.050	1.419^{ns}	[-0.117; 0.022]	No
H11. User Satisfaction (US) → Public Engagement (PE)	0.529	9.642^{***}	[0.418; 0.634]	Yes
H12. User Satisfaction (US) → Continuance Intention (CI)	0.528	8.649^{***}	[0.400; 0.640]	Yes

Note(s): n = 10,000 subsample; Significance based on T-value: ns = non-significant ($p \geq 0.05$), *p < 0.05, **p < 0.01, ***p < 0.001. β: Path Coefficients;

These findings provide a nuanced understanding of the key drivers underpinning the successful adoption of government social media platforms in semi-urban contexts. User satisfaction emerged as a primary determinant of public engagement and continuance intention, while institutional factors such as Transparency and trust played a critical role in shaping digital trust. In contrast to previous studies emphasizing technical dimensions, this research highlights the dominant influence of institutional and interactive factors in fostering user satisfaction and loyalty toward government-operated social media platforms. These results underscore the importance of adopting a contextualized approach incorporating institutional considerations into designing and managing digital public services, particularly in semi-urban settings.

3.3. Impact–Performance Map Analysis (IPMA)

The Impact–Performance Map Analysis (IPMA) was performed to identify strategic improvement priorities by evaluating each exogenous construct's relative importance and average performance concerning two key dependent variables: User Satisfaction and Continuance Intention. Table 8 presents the IPMA results, while Figures 3 and 4 illustrate the visual maps for each target construct.

Table 8. Importance–Performance Map of the Target Constructs “Continuance Intention (CI)" and "Public Engagement (PE)"

Constructs	Continuance Intention (CI)		Public Engagement (PE)	
	Important	Performance	Important	Performance
Perceived Usefulness (PU)	-0.018	73.519	-0.018	73.519
Perceived Ease of Use (PEOU)	0.025	74.023	0.025	74.023
Trust in Government (TG)	-0.010	72.390	-0.010	72.390
Transparency (T)	0.171	72.644	0.171	72.644
Perceived Risk (PR)	-0.012	60.627	-0.012	60.627
Interactivity (INT)	0.190	69.149	0.190	69.149
Digital Literacy (DL)	0.161	73.206	0.161	73.206
User Satisfaction (US)	0.528	71.515	0.529	71.515

The IPMA results highlight User Satisfaction (importance = 0.528; performance = 71.515) as the most critical determinant of Continuance Intention, underscoring its strategic role in sustaining public engagement through local government social media platforms. Despite its relatively moderate performance score, its high importance suggests enhancing user satisfaction should be a top priority for digital public service optimization.

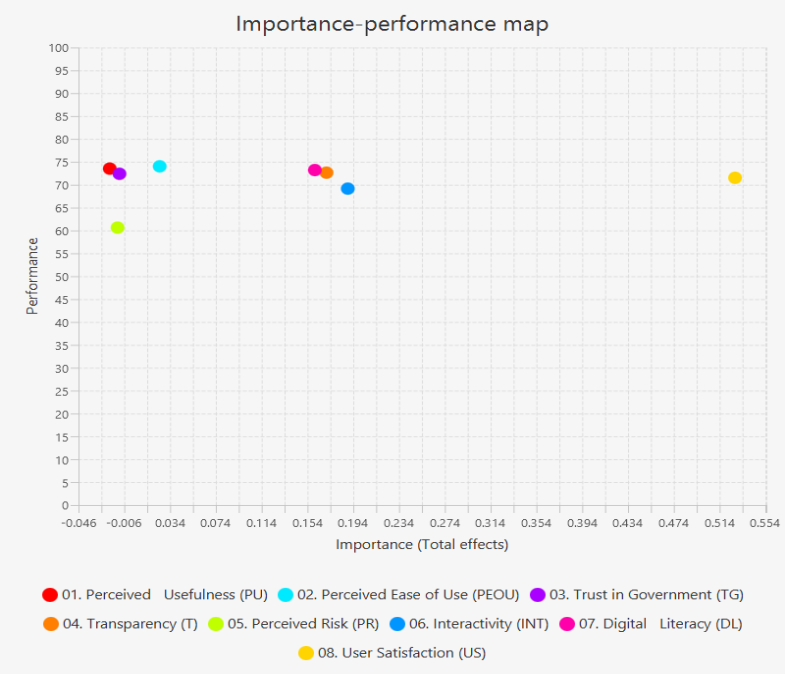


Fig 3. IPMA of components of Continuance Intention (CI)

Moreover, Interactivity (importance = 0.190; performance = 69.149) and Transparency (importance = 0.171; performance = 72.644) are constructs with considerable influence on satisfaction and continuance intention, but their performance levels are still suboptimal. These findings suggest the need for public sector organizations to strengthen two-way communication capabilities and institutional openness to foster a more engaging and trustworthy digital environment.

Digital Literacy (importance = 0.161; performance = 73.206) also emerges as a significant predictor, indicating the importance of user capability in navigating and interacting with digital content. Enhancing digital literacy, particularly in semi-urban areas such as Central Lombok, could have a meaningful impact on user engagement and sustained usage. In contrast, constructs rooted in the traditional Technology Acceptance Model (TAM), such as Perceived Usefulness, Perceived Ease of Use, and Trust in Government, exhibit lower importance scores despite having relatively high performance. These results suggest a contextual shift in citizens' evaluation criteria when engaging with government social media platforms. Rather than focusing solely on usability or technical value, users seem to prioritize institutional Transparency, interactive experiences, and trustworthiness.

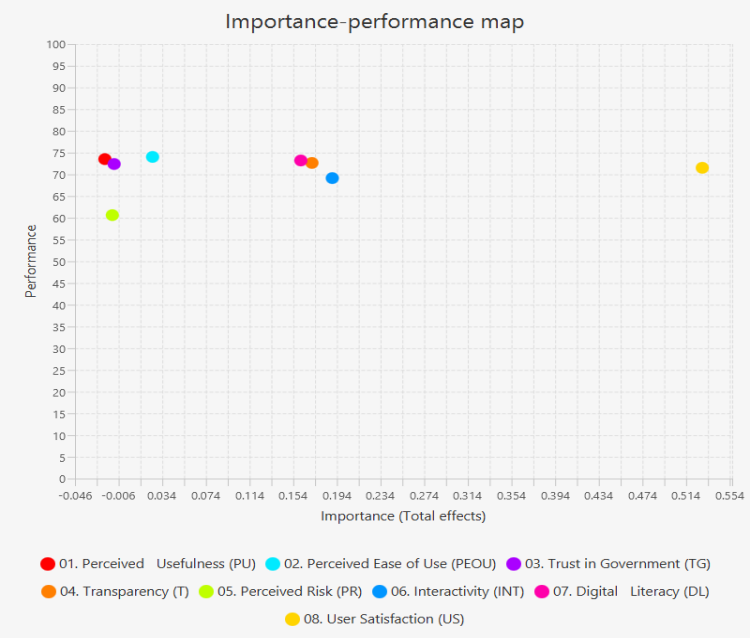


Figure 4. IPMA of components of Public Engagement (PE)

This study demonstrates that integrating the Technology Acceptance Model (TAM), the E-Government Adoption Model (e-GAM), and Importance-Performance Map Analysis (IPMA) into a unified conceptual framework offers a comprehensive lens for evaluating user satisfaction, digital trust, public engagement, and continuance intention in the use of government social media platforms. This integration captures users' cognitive perceptions of technology and reflects the institutional quality and interactive experience dimensions often overlooked in conventional technology adoption models.

The findings reveal that institutional factors such as Transparency, Interactivity, and digital literacy significantly influence user satisfaction, shifting the focus away from technical dimensions such as perceived usefulness and ease of use, which were found to be non-significant in this context. This challenges the foundational assumptions of the TAM framework, which posits perceived usefulness and ease of use as primary predictors of technology acceptance. In the context of government social media, especially in semi-urban areas like Central Lombok, users appear to place greater value on institutional attributes such as openness, two-way communication quality, and the credibility of information sources rather than merely on technical efficiency. Moreover, perceived Risk did not significantly affect user satisfaction or trust, diverging from previous studies that identify Risk as a significant barrier to digital interaction. A plausible explanation is that government social media platforms are primarily informative and do not involve sensitive transactions, thus leading users to perceive lower Risk.

The construct of user trust is significantly mediated by trust in government and information transparency, confirming the literature on digital trust. These results reinforce the importance of institutional credibility and open communication in building confidence in public digital services. Furthermore, user satisfaction strongly influences public engagement and continuance intention, supporting prior research that emphasizes the critical role of emotional and experiential dimensions in fostering user loyalty toward digital public service platforms. Users are more likely to continue using, recommending, and actively engaging with government social media platforms when satisfied.

Importance-Performance Map Analysis (IPMA) adds a strategic layer to the analysis by identifying priority areas for improvement based on the relative importance and average performance of each construct as perceived by users. Constructs such as Interactivity and Transparency emerged as high-impact yet underperforming areas, indicating strategic opportunities for enhancement. These findings align with the IPMA approach proposed by Sarstedt et al. (2022) and Henseler et al. (2015), which highlights the need to allocate resources to constructs with high importance but low performance to maximize policy impact.

Theoretically, this study advances the e-government adoption literature by emphasizing the role of institutional and relational factors in shaping user behavior. While TAM remains relevant, the findings suggest that Transparency, trust, and participatory interaction have greater influence in the context of government social media. This approach underscores the necessity of designing public digital services that consider local contexts and users' social characteristics, especially in areas with diverse levels of digital literacy. Methodologically, integrating PLS-SEM with IPMA allows for a dual-layered analysis that combines hypothesis testing with strategic mapping, contributing to the emerging discourse in information systems research that promotes the convergence of exploratory and prescriptive analytics.

Practically, the results provide actionable insights for local governments seeking to improve the effectiveness of social media as a public service channel. Development efforts should prioritize enhancing Transparency, responsiveness to citizen interaction, and public digital literacy. By doing so, government social media can evolve from merely an information dissemination tool to a participatory platform that fosters public trust and strengthens inclusive and sustainable digital governance.

3.4. Managerial Implications

The Importance-Performance Map Analysis (IPMA) findings offer valuable insights for local government authorities seeking to enhance user engagement and satisfaction with official social media platforms. Constructs such as Transparency, Interactivity, and Digital Literacy were identified as high-impact yet underperforming factors, highlighting strategic areas where managerial interventions are most urgently required.

From a managerial standpoint, improving Transparency should be prioritized. This entails ensuring the timely and clear dissemination of public information, increasing the frequency of institutional updates, making data more accessible, and using plain language to enhance interpretability. Communication strategies must be designed to reduce ambiguity and foster trust, especially in semi-urban contexts where institutional skepticism may be higher. The role of Interactivity also emerged as critical. Government agencies are encouraged to invest in interactive features such as comment responsiveness, user polls, Q&A sessions, and live streaming of policy discussions. Enhancing bidirectional communication channels fosters public participation and strengthens perceptions of governmental accountability. This is particularly important in digital governance, where engagement is a precursor to civic inclusion and loyalty.

Digital literacy, though often treated as a background factor, plays a direct role in shaping user satisfaction. Targeted capacity-building programs should be implemented with educational institutions and community organizations. These could include workshops, mobile outreach training, and academic content development that guides citizens in navigating official social media accounts. An inclusive design considering users with low digital competencies will ensure that government platforms are accessible to broader demographics. On the technical side, even though Perceived Usefulness and Ease of Use were not significant predictors of satisfaction in this study, their role in shaping continuance intention and user trust remains vital. Therefore, government social media interfaces should be continuously evaluated and refined through usability testing, user feedback loops, and behavioral analytics to ensure they stay intuitive, functional, and responsive. This is aligned with findings in recent e-government studies emphasizing the synergy between institutional credibility and digital service design.

Furthermore, the application of IPMA facilitates data-driven prioritization by allowing decision-makers to allocate resources efficiently. Constructs with high importance but lower performance, such as interaction and digital literacy, represent high-leverage opportunities for improvement. Leveraging such strategic mapping tools can help local governments adopt more agile and evidence-based digital strategies, maximizing user value and minimizing service gaps. In the long term, sustaining digital engagement requires multi-stakeholder collaboration. Local governments should forge partnerships with academic researchers, civil society organizations, and technology providers to co-create digital literacy content, enhance service inclusivity, and support innovation in public communication. These initiatives will strengthen platform adoption and deepen civic trust and institutional legitimacy in the digital era.

Ultimately, this study highlights the need for a dual-focus strategy that balances institutional Transparency and relational trust with user-centric design and capacity building. By integrating theoretical insights with practical diagnostics through the TAM–eGAM–IPMA framework, local governments are equipped with a robust foundation for improving the relevance, effectiveness, and sustainability of their social media-based public services

4. Conclusions

This study provides both conceptual and practical contributions through the development of an integrative model that combines the Technology Acceptance Model (TAM), the E-Government Adoption Model (e-GAM), and the Importance-Performance Map Analysis (IPMA) to evaluate user satisfaction, digital trust, public engagement, and continuance intention in the use of local government social media platforms. The key novelty of this research lies in integrating institutional and behavioral factors within a unified framework and applying IPMA to map strategic improvement priorities based on user perceptions empirically. The findings reveal that variables such as Transparency, interaction, and digital literacy significantly influence user satisfaction, highlighting a shift from the classical assumptions of TAM, which traditionally emphasize perceived usefulness and perceived ease of use as dominant predictors. These insights extend theoretical understanding by underscoring that institutional factors and the quality of communicative interaction between governments and citizens play a more critical role than technical features, particularly in semi-urban contexts. From a practical standpoint, the results affirm that the effectiveness of government social media platforms cannot rely solely on technical functionality or user interface design. Instead, it must reinforce institutional values such as Transparency, credibility, and trust. Despite its high importance, the IPMA results demonstrate that dimensions like Interactivity and Transparency still exhibit suboptimal performance and should be prioritized when formulating digital service policies. Methodologically, integrating PLS-SEM and IPMA within a single research framework represents a significant contribution to information systems and e-government research. This combined approach enables causal hypothesis testing and strategic mapping, providing a dual-layered analytical tool for data-driven policy decisions. However, the study is subject to several limitations. It is geographically confined to a single semi-urban district and relies solely on a quantitative approach, which may not fully capture users' nuanced experiences and perceptions. Future research is encouraged to expand the geographic scope and adopt a mixed-method design to gain deeper insights into the behavioral determinants of digital engagement in local government contexts. This study underscores the importance of a multidimensional approach in designing and evaluating local government social media platforms. This research offers strategic contributions toward building more inclusive, trustworthy, and sustainable digital public services by integrating technological, institutional, and social interaction perspectives.

Acknowledgments

The authors thank the local government offices and community members in Central Lombok Regency for their cooperation and participation during data collection. Special appreciation is extended to academic colleagues at STMIK Lombok for their feedback during the manuscript development process.

References

[1] J. I. Criado and J. R. Gil-Garcia, “Creating public value through smart technologies and strategies: From digital services to artificial intelligence and beyond,” *International Journal of Public Sector Management*, vol. 32, no. 5, pp. 438–450, 2019, doi: 10.1108/IJPSM-07-2019-0178.

[2] S. Maharani, A. Lutpiani, and A. Setiawan, “Social Media: A Bibliometric Analysis,” *International Journal of Engineering, Science and Information Technology*, vol. 5, no. 2, pp. 462–473, May 2025, doi: 10.52088/ijesty.v5i2.880.

[3] J. D. Twizeyimana and A. Andersson, “The public value of E-Government–A literature review,” *Gov Inf Q*, vol. 36, no. 2, pp. 167–178, 2019, doi: 10.1016/j.giq.2019.01.001.

[4] H. Hendra, N. Fadhilah, I. Yani, V. Violin, R. Apramilda, and K. Kushariyadi, "The Role of Marketing Campaigns Through Social Media and Perceived Usefulness on Purchase Intention of Electric Vehicle," *International Journal of Engineering, Science and Information Technology*, vol. 5, no. 2, pp. 18–22, Jan. 2025, doi: 10.52088/ijesty.v5i2.766.

[5] V. A. Zahrah, N. Nurdin, and R. Risawandi, "Sentiment Analysis of Google Maps User Reviews on the Play Store Using Support Vector Machine and Latent Dirichlet Allocation Topic Modeling," *International Journal of Engineering, Science and Information Technology*, vol. 4, no. 4, pp. 87–100, Oct. 2024, doi: 10.52088/ijesty.v4i4.580.

[6] J. I. Criado and J. Villodre, "Delivering public services through social media in European local governments. An interpretative framework using semantic algorithms," *Local government studies*, vol. 47, no. 2, pp. 253–275, 2021, doi: 10.1080/03003930.2020.1729750.

[7] S. Khan, R. Umer, S. Umer, and S. Naqvi, "Antecedents of trust in using social media for E-government services: An empirical study in Pakistan," *Technol Soc*, vol. 64, p. 101400, 2021, doi: 10.1016/j.techsoc.2020.101400.

[8] A. K. Abdulkareem, Z. J. Abdulkareem, A. A. Ishola, and I. T. Akindele, "Does e-government impact e-participation? The influence of trust in e-government," *International Review of Public Administration*, vol. 27, no. 2, pp. 91–110, 2022, doi: 10.1080/12294659.2022.2071540.

[9] F. Setiawan *et al.*, "Navigating hospital foodservice satisfaction: Insights from Importance-Performance Map Analysis," *AcTion: Aceh Nutrition Journal*, vol. 9, no. 2, pp. 270–279, 2024, doi: 10.30867/action.v9i2.1572.

[10] A. P. Nst, S. Sebayang, and D. A. D. Nst, "Enhance Successful Identification of E-Government Management in Realizing Good Government Governance in the Government of the City Of Binjai," *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, vol. 4, no. 3, pp. 5120–5133, 2021, doi: 10.33258/birci.v4i3.2301.

[11] S. Boulianne, "Revolution in the making? Social media effects across the globe," *Inf Commun Soc*, vol. 22, no. 1, pp. 39–54, 2019, doi: 10.1080/1369118X.2017.1353641.

[12] T. S. Amosun, J. Chu, O. H. Rufai, S. Muhideen, R. Shahani, and M. K. Gonlepa, "Does e-government help shape citizens' engagement during the COVID-19 crisis? A study of mediational effects of how citizens perceive the government," *Online Information Review*, vol. 46, no. 5, pp. 846–866, 2022, doi: 10.1108/OIR-10-2020-0478.

[13] N. H. Abdullah, I. Hassan, M. F. bin Ahmad, N. A. Hassan, and M. M. Ismail, "Social media, youths and political participation in Malaysia: A review of literature," *International Journal of Academic Research in Business and Social Sciences*, vol. 11, no. 4, pp. 845–857, 2021, doi: 10.6007/ijarbss/v11-i4/9578.

[14] M. H. H. Zubir and M. S. Abdul Latip, "Factors affecting citizens' intention to use e-government services: assessing the mediating effect of perceived usefulness and ease of use," *Transforming Government: People, Process and Policy*, vol. 18, no. 3, pp. 384–399, 2024, doi: 10.1108/TG-04-2023-0040.

[15] M. Anityasari, A. Pamungkas, and A. Sonhaji, "Measuring user acceptance of e-government adoption in an Indonesian context: a study of the extended technology acceptance model," *International Journal of Electronic Governance*, vol. 16, no. 2, pp. 172–195, 2024, doi: 10.1504/IJEG.2024.140787.

[16] I. K. Mensah, "Impact of government capacity and E-government performance on the adoption of E-Government services," *International Journal of Public Administration*, 2020, doi: 10.1080/01900692.2019.1628059.

[17] F. Davis and F. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, vol. 13, p. 319, Sep. 1989, doi: 10.2307/249008.

[18] I. F. Rachmi, F. R. Asta, and N. D. Kartiko, "The effects of perceived ease of use, perceived usefulness, and computer Self-Efficacy on e-Nofa Application user satisfaction," in *E3S Web of Conferences*, EDP Sciences, 2023, p. 4017. doi: 10.1051/e3sconf/202338804017.

[19] A. Tahar, H. A. Riyadh, H. Sofyani, and W. E. Purnomo, "Perceived ease of use, perceived usefulness, perceived security and intention to use e-filing: The role of technology readiness," *The Journal of Asian Finance, Economics and Business*, vol. 7, no. 9, pp. 537–547, 2020, doi: 10.13106/jafeb.2020.vol7.no9.537.

[20] A. Sabani, "Investigating the influence of transparency on the adoption of e-Government in Indonesia," *Journal of Science and Technology Policy Management*, vol. 12, no. 2, pp. 236–255, 2021, doi: 10.1108/JSTPM-03-2020-0046.

[21] M. N. Fakhruzzaman and D. V Dimitrova, "Factors influencing e-government adoption in Indonesia: The importance of perceived risk," *Journal of Advanced Research in Dynamical and Control Systems*, vol. 12, no. 6, pp. 125–131, 2020, doi: 10.5373/JARDCS/V12SP6/SP20201015.

[22] T. T. U. Nguyen, P. Van Nguyen, H. T. N. Huynh, G. Q. Truong, and L. Do, "Unlocking e-government adoption: Exploring the role of perceived usefulness, ease of use, trust, and social media engagement in Vietnam," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 10, no. 2, p. 100291, 2024, doi: 10.1016/j.joitmc.2024.100291.

[23] V. Indama, "Digital governance: Citizen perceptions and expectations of online public services," *Interdisciplinary Studies in Society, Law, and Politics*, vol. 1, no. 2, pp. 12–18, 2022, doi: 10.61838/kman.isslp.1.2.3.

[24] R. Sijabat, "Analysis of e-government services: A study of the adoption of electronic tax filing in Indonesia," *Jurnal Ilmu Sosial Dan Ilmu Politik*, vol. 23, no. 3, pp. 179–197, 2020, doi: 10.22146/jsp.52770.

[25] M. Sarstedt, N. F. Richter, S. Hauff, and C. M. Ringle, "Combined importance–performance map analysis (cIPMA) in partial least squares structural equation modeling (PLS–SEM): a SmartPLS 4 tutorial," *Journal of Marketing Analytics*, pp. 1–15, 2024, doi: 10.1057/s41270-024-00325-y.

[26] I. K. Mensah and C. Luo, "Exploring factors determining Chinese college students' satisfaction with E-government services: the technology acceptance model (TAM) approach," *Information resources management journal (IRMJ)*, vol. 34, no. 3, pp. 1–20, 2021, doi: 10.4018/IRMJ.2021070101.

[27] A. Nguyen and D. Catalan, "Digital mis/disinformation and public engagment with health and science controversies: Fresh perspectives from Covid-19," *Media Commun*, vol. 8, no. 2, pp. 323–328, 2020, doi: 10.17645/mac.v8i2.3352.

[28] A. K. Ameen, D. H. Kadir, D. A. Abdullah, I. Y. Maolood, and H. A. Khidir, "Assessing E-government effectiveness: a structural equation modeling approach," *Aro-The Scientific Journal of Koya University*, vol. 12, no. 2, pp. 52–60, 2024, doi: 10.14500/aro.11601.

[29] T. Alblooshi, M. Azli, M. F. Hilmi, A. Abudaqa, and G. Ahmed, "Examining the trends in citizen satisfaction towards e-government services in United Arab Emirates: a structural equation modelling approach," *International Journal of Services, Economics and Management*, vol. 14, no. 1, pp. 58–77, 2023, doi: 10.1504/IJSEM.2023.129597.

[30] W. M. Al-Rahmi *et al.*, "Validation of an Integrated IS Success Model in the Study of E-Government," *Mobile Information Systems*, vol. 2022, no. 1, p. 8909724, 2022, doi: 10.1155/2022/8909724.

[31] W. A. Sulistyowati, I. Alrajawy, A. Yulianto, O. Isaac, and A. Ameen, "Factors contributing to e-government adoption in Indonesia—an extended of technology acceptance model with trust: a conceptual framework," in *Intelligent Computing and Innovation on Data Science: Proceedings of ICTIDS 2019*, Springer, 2021, pp. 651–658. doi: 10.1007/978-981-15-3284-9_74.

[32] T. T. U. Nguyen, P. Van Nguyen, H. T. N. Huynh, D. Vrontis, and Z. U. Ahmed, "Identification of the determinants of public trust in e-government services and participation in social media based on good governance theory and the technology acceptance model," *Journal of Asia Business Studies*, vol. 18, no. 1, pp. 44–61, 2024, doi: 10.1108/JABS-04-2023-0160.

[33] A. Hooda, P. Gupta, A. Jeyaraj, and Y. Dwivedi, "Clarifying the role of e-government trust in e-government success models: A meta-analytic structural equation modeling approach," *Australasian Journal of Information Systems*, vol. 27, 2023, doi: 10.3127/ajis.v27i0.4079.

[34] M. Shayganmehr, A. Kumar, J. A. Garza-Reyes, and E. K. Zavadskas, "A framework for assessing trust in e-government services under uncertain environment," *Information Technology & People*, vol. 36, no. 7, pp. 2718–2755, 2023, doi: 10.1108/itp-01-2021-0096.

[35] A. Lovari, "Spreading (dis) trust: Covid-19 misinformation and government intervention in Italy," *Media Commun*, vol. 8, no. 2, pp. 458–461, 2020, doi: 10.17645/mac.v8i2.3219.

[36] S. Jamil, "From digital divide to digital inclusion: Challenges for wide-ranging digitalization in Pakistan," *Telecomm Policy*, vol. 45, no. 8, p. 102206, 2021, doi: 10.1016/j.telpol.2021.102206.

[37] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," Jan. 14, 2019, *Emerald Group Publishing Ltd.* doi: 10.1108/EBR-11-2018-0203.

[38] A. K. AbdulKareem and K. A. Oladimeji, "Cultivating the digital citizen: trust, digital literacy and e-government adoption," *Transforming Government: People, Process and Policy*, vol. 18, no. 2, pp. 270–286, 2024, doi: 10.1108/TG-11-2023-0196.

[39] A. M. Salem, S. Z. Eyupoglu, and M. K. Ma'aitah, "The Influence of Machine Learning on Enhancing Rational Decision-Making and Trust Levels in e-Government," *Systems*, vol. 12, no. 9, p. 373, 2024, doi: 10.3390/systems12090373.

[40] A. Androniceanu, "Transparency in public administration as a challenge for a good democratic governance," *Revista» Administratie si Management Public «(RAMP)*, no. 36, pp. 149–164, 2021, doi: 10.24818/AMP/2021.36-09.

[41] E. Gu, T. Meng, H. Wang, and A. Zhang, "E-government use, perceived transparency, public knowledge of government performance, and satisfaction with government: an analysis of mediating, moderating, and framing mechanisms based on the COVID-19 outbreak control survey data from China," *Soc Indic Res*, vol. 169, no. 1, pp. 79–124, 2023, doi: 10.1007/s11205-023-03135-4.

[42] Q. Chen, C. Min, W. Zhang, G. Wang, X. Ma, and R. Evans, "Unpacking the black box: How to promote citizen engagement through government social media during the COVID-19 crisis," *Comput Human Behav*, vol. 110, p. 106380, 2020, doi: 10.1016/j.chb.2020.106380.

[43] C. Leong, S. L. Pan, S. Bahri, and A. Fauzi, "Social media empowerment in social movements: power activation and power accrual in digital activism," *European Journal of Information Systems*, vol. 28, no. 2, pp. 173–204, 2019, doi: 10.1080/0960085X.2018.1512944.

[44] S. Balaskas, A. Panagiotarou, and M. Rigou, "The influence of trustworthiness and technology acceptance factors on the usage of e-government services during COVID-19: a case study of post COVID-19 Greece," *Adm Sci*, vol. 12, no. 4, p. 129, 2022, doi: 10.3390/admsci12040129.

[45] S. Arshad and S. Khurram, "Can government's presence on social media stimulate citizens' online political participation? Investigating the influence of Transparency, trust, and responsiveness," *Gov Inf Q*, vol. 37, no. 3, p. 101486, 2020, doi: 10.1016/j.giq.2020.101486.

[46] T. T. T. Nguyen, "Citizens' intentions to use e-government during the COVID-19 pandemic: integrating the technology acceptance model and perceived risk theory," *Kybernetes*, vol. 52, no. 7, pp. 2329–2346, 2023, doi: 10.1108/K-07-2022-1023.

[47] C. K. Sanders and E. Scanlon, "The digital divide is a human rights issue: Advancing social inclusion through social work advocacy," *J Hum Rights Soc Work*, vol. 6, no. 2, pp. 130–143, 2021, doi: 10.1007/s41134-020-00147-9.

[48] J. Henseler, C. M. Ringle, and M. Sarstedt, "A new criterion for assessing discriminant validity in variance-based structural equation modeling," *J Acad Mark Sci*, vol. 43, no. 1, pp. 115–135, Jan. 2015, doi: 10.1007/s11747-014-0403-8.