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Determinants of User Satisfaction with the Padang Mobile Super App: The Mediating Role of Trust and the Moderating Role of Intention to Use

Elfiswandi Elfiswandi¹, Ramdani Bayu Putra², Chintya Ones Charli³, Omia Crefioza⁴,
Ai Elis Karlinda⁵, Della Asmaria Putri⁶, Azhari Rahmat⁷

¹Universitas Putra Indonesia YPTK, Padang, Indonesia, elfiswandi@upiypk.ac.id

²Universitas Putra Indonesia YPTK, Padang, Indonesia, ramdhani_bayu@upiypk.ac.id

³Universitas Putra Indonesia YPTK, Padang, Indonesia, chintyaonescharli@upiypk.ac.id

⁴Universitas Putra Indonesia YPTK, Padang, Indonesia, omiacrefioza@upiypk.ac.id

⁵Universitas Putra Indonesia YPTK, Padang, Indonesia, aieliskarlinda@upiypk.ac.id

⁶Universitas Putra Indonesia YPTK, Padang, Indonesia, dellaasmariaputri03@upiypk.ac.id

⁷Universitas Putra Indonesia YPTK, Padang, Indonesia, azharirahmat23@gmail.com

Corresponding Author: ramdhani_bayu@upiypk.ac.id²

Abstract: This study empirically investigates the determinants of user satisfaction with Padang Mobile, a government-developed super app deployed by the Padang City Government, West Sumatra, Indonesia. Drawing upon the Technology Acceptance Model (TAM) and the Information Systems Success Model, an integrated conceptual framework was developed incorporating Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) as primary antecedents, Trust as a mediating variable, and Intention to Use as a moderating variable. Data were collected from 1,111 productive-age residents across all 11 kecamatan of Kota Padang through purposive sampling with proportional distribution, and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0. Results confirm that PEOU is the dominant predictor of Trust ($\beta = 0.716$), while both PU and Trust exert significant positive effects on User Satisfaction. Notably, PEOU's effect on satisfaction operates exclusively through Trust as a full mediator, whereas PU's effect is partially mediated by Trust. Intention to Use significantly moderates the Trust–Satisfaction relationship, marginally attenuating rather than amplifying it, suggesting that highly motivated users impose elevated expectations that trust alone cannot fully satisfy. These findings extend TAM and IS Success Model theorization in the e-government super app context and offer evidence-based recommendations for enhancing citizen adoption and satisfaction with government digital platforms in developing economies.

Keyword: Perceived Usefulness, Trust, User Satisfaction, E-Government, Super App.

INTRODUCTION

The accelerating wave of public service digitalization over the past decade has fundamentally transformed the way governments interact with citizens (Cortés-Cediel, 2023; Crusoe et al., 2024; Sharma et al., 2024). Local governments across Indonesia are increasingly deploying integrated technology platforms that streamline bureaucratic processes and improve service accessibility for the broader population. Within this transformative landscape, the Padang City Government has developed Padang Mobile, a super app that consolidates diverse public services within a single digital interface. This initiative aligns with the national digital transformation agenda, which seeks to promote more responsive, efficient, and citizen-centric governance (Ilieva, 2024; Sun et al., 2023; Tremblay-Cantin et al., 2023).

The success of a digital platform, however, is not solely determined by the sophistication of its underlying technology. Contemporary research consistently demonstrates that public adoption of technology is a complex process shaped by an interacting set of psychological, social, and contextual factors (Hooda et al., 2022; Kala et al., 2024; Shareef et al., 2021). Behavioral intention to use a digital system and user satisfaction derived from its use represent two critical constructs that determine whether a government platform will sustain and grow its user base or be progressively abandoned by its intended audience (Alrawabdeh, 2022; Ilieva, 2024; Sharma et al., 2024). Understanding the determinants underlying both constructs is therefore essential for policymakers and system developers seeking to design effective adoption strategies.

Within the theoretical framework of technology acceptance, constructs such as perceived usefulness, perceived ease of use, system quality, and information quality have been consistently demonstrated to influence both behavioral intention and user satisfaction with government digital services (Belanche et al., 2012; Hooda et al., 2022; Khayer et al., 2022; Ndzabela et al., 2025). These determinants, however, do not operate in a direct and linear fashion. A psychological mechanism functions as the bridge between users' technology perceptions and their actual behavioral responses, and trust has been identified as the most dominant mediating mechanism in this context (Alotaibi & Lowry, 2023; Hariguna et al., 2023; Hooda et al., 2022; Ortiz-Rodriguez et al., 2025).

Trust in the e-government ecosystem encompasses citizens' beliefs regarding the integrity, competence, and benevolence of the government institution in managing data and delivering digital services (Barbosa & Mota, 2022; Hooda et al., 2022; Nurlinah & al., 2025; Srivastava & Teo, 2022). When citizens are confident that the government will protect their privacy, operate transparently, and fulfill its service commitments, psychological barriers to adopting digital platforms are substantially reduced. Conversely, a trust deficit constitutes the most difficult adoption barrier to overcome, even when the system in question meets objectively high technical quality standards (Hooda et al., 2022; Kala et al., 2024; Santa et al., 2019; Warkentin et al., 2022). Positioning trust as a mediating variable within the research model, therefore, carries strong theoretical and practical relevance (Hooda et al., 2022; Nurlinah et al., 2025; Ortiz-Rodriguez et al., 2025).

Beyond the trust dimension, the heterogeneous nature of government super app users must also be recognized. Differences in user characteristics encompassing demographic dimensions such as age and educational attainment, as well as behavioral dimensions such as digital literacy and prior technology experience, have been shown to produce significant variation in adoption patterns and satisfaction levels with digital government services (Barbosa & Mota, 2022; Escobar-Rodríguez & Bartual-Sopena, 2021; Ilieva, 2024; Lee-Geiller, 2024; Sala, 2025; Verkijika, 2022). Overlooking this heterogeneity risks generating partial models that fail to adequately represent the complexity of user behavior (Ilieva, 2024; Lee-Geiller, 2024; Ndzabela et al., 2025; Santa & al., 2019).

Despite the extensive body of research on the Technology Acceptance Model (TAM) and e-government adoption, several important gaps remain. Previous studies have primarily focused on examining the direct effects of perceived usefulness and perceived ease of use on behavioral intention or user satisfaction, while comparatively limited attention has been given to the simultaneous examination of trust as a mediating mechanism and intention to use as a moderating variable within a single integrated framework. Moreover, empirical evidence concerning local government super applications, particularly in developing countries such as Indonesia, remains scarce. Existing studies have predominantly investigated national e-government platforms or conventional digital public services, leaving the adoption and evaluation of integrated government super apps largely unexplored. To address these gaps, this study develops and empirically tests an integrated model combining the Technology Acceptance Model (TAM) and the Information Systems Success Model to explain user satisfaction with the Padang Mobile Super App through the mediating role of trust and the moderating role of intention to use. By providing empirical evidence from a large-scale citizen sample in a local government context, this study contributes to extending the contextual applicability of these established theoretical frameworks in digital government research.

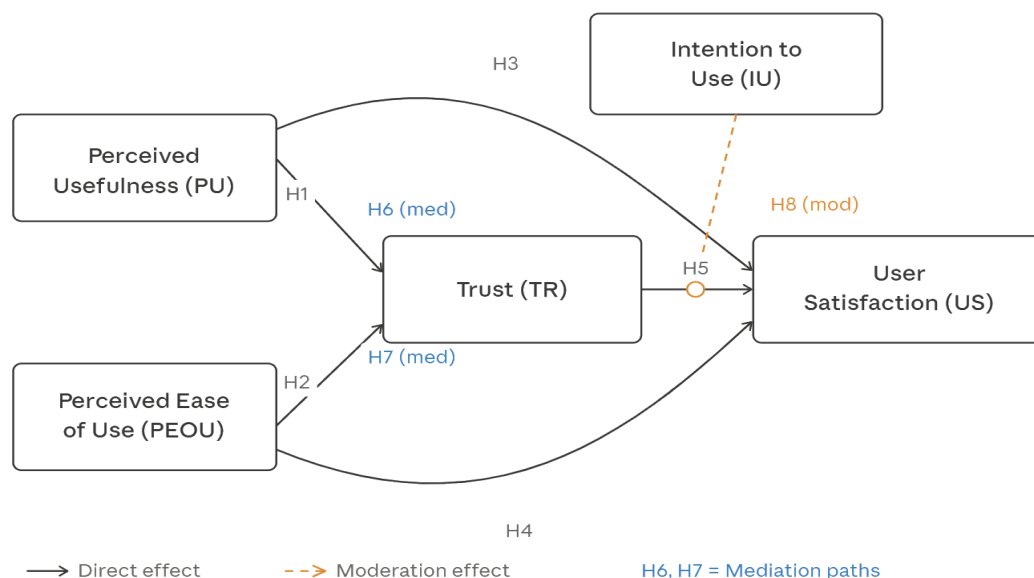


Figure 1. Conceptual Framework and Research Model

METHOD

Research Design

This study employs a quantitative cross-sectional survey design to empirically test the hypothesized relationships among perceived usefulness, perceived ease of use, trust, intention to use, and user satisfaction within the Padang Mobile ecosystem. A quantitative approach is appropriate given the confirmatory nature of the research objectives, which require hypothesis testing through structural path coefficient estimation rather than exploratory theory generation (Hair et al., 2021). Data were collected via a structured self-administered questionnaire distributed both digitally through community messaging platforms and in person through enumerator-assisted administration across kelurahan offices, community service centers, and public markets. All items were presented in Bahasa Indonesia to maximize accessibility and minimize language-induced response bias. Prior to field deployment, the instrument underwent content validity review by two academic experts and a

government digital service practitioner, followed by a pilot test involving 35 respondents to verify item clarity and internal consistency.

Population, Sampling, and Sample Size

The study was conducted across all 11 kecamatan and 104 kelurahan of Kota Padang, West Sumatra, encompassing urban, coastal, and peri-urban geographic typologies to ensure representativeness of the actual Padang Mobile user population. The target population consists of productive-age residents (15–64 years), comprising 593,818 individuals in 2024, representing 63.52% of the city's total registered population, based on 2023 municipal demographic records.

$$n = \frac{N}{1 + N(e)^2} = \frac{593,818}{1 + 593,818 (0.05)^2} \approx 400 \text{ respondents}$$

Where $N = 593,818$ and $e = 0.05$ (5% margin of error). Field participation substantially exceeded this minimum, yielding a final usable dataset of 1,111 valid responses, 2.78 times the minimum threshold, providing robust statistical power for detecting small-to-medium structural effect sizes (Hair et al., 2021).

Purposive sampling was applied with two eligibility criteria: registered Padang Mobile users and membership in the productive-age demographic. Sampling quotas were distributed proportionally across sub-districts, age groups, and educational attainment levels to accurately reflect the demographic composition of the user population (Sekaran & Bougie, 2022).

Measurement Instrument

All constructs were operationalized using reflective multi-item scales adapted from validated instruments in the e-government and technology acceptance literature, rated on a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). The operationalization of each variable is summarized in Table 1.

Table 1. Variable Operationalization

Construct	Items	Source
Perceived Usefulness (PU)	8	(Davis, 1989; Dwivedi et al., 2021; Venkatesh et al., 2022)
Perceived Ease of Use (PEOU)	11	(Davis, 1989; Verkijika, 2022)
Trust (TR)	11	(Warkentin et al., 2022)
Intention to Use (IU)	13	(Venkatesh et al., 2022)
User Satisfaction (US)	12	(DeLone & McLean, 2003; Srivastava & Teo, 2022)

Source: Research data

Data Analysis

Hypotheses were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) via SmartPLS 4.0 (Ringle et al., 2023). PLS-SEM was selected for its suitability for models incorporating simultaneous mediation and moderation effects, its robustness without requiring normality assumptions, and its stability with large heterogeneous samples (Hair et al., 2021). Analysis followed a sequential two-stage procedure. The measurement model was evaluated for indicator reliability (loadings ≥ 0.70), internal consistency (Composite Reliability ≥ 0.70), convergent validity (AVE ≥ 0.50), and discriminant validity using the HTMT ratio criterion (< 0.85). The structural model was assessed via bootstrapping with 5,000 subsamples to generate path coefficients, t-statistics, and 95% bias-corrected confidence intervals. Mediation effects (H6, H7) were tested through indirect effect significance, moderation (H8) through the Product Indicator Approach, and model fit was evaluated using R^2 , Q^2 , and Cohen's f^2 .

RESULT AND DISCUSSION

This section presents the demographic characteristics of the 1,111 valid respondents who participated in this study as active Padang Mobile users across all 11 kecamatan of Kota Padang. Respondent characteristics were examined across five demographic dimensions: district of origin, gender, age, educational attainment, and occupational background. These dimensions collectively capture the socioeconomic and geographic diversity of the sample, thereby strengthening the representativeness and generalizability of the study's findings (Hair et al., 2021). The complete demographic profile is presented in Table 2.

Table 2. Respdnent Characteristics

Respondent Characteristics	Chategory	Frequency	Percentage
Respondents' district of origin	Bungus Teluk Kabung District	71	6,4%
	Lubuk Kilangan District	45	4,1%
	Lubuk Begalung District	380	34,2%
	Padang Selatan District	125	11,3%
	Padang Timur District	171	15,4%
	Padang Barat District	17	1,5%
	Padang Utara District	57	5,1%
	Nanggalo District	11	1%
	Kuranji District	100	9%
	Pauh District	54	4,9
Gender	Koto Tangah District	80	7,2%
	Male	484	43,6%
Age	Female	627	56,4%
	< 20 Years	203	18,3%
	21-30 Years	442	39,9%
	31-40 Years	128	11,5%
	41-50 Years	170	15,3%
	> 50 Years	168	15,1%
Highest Education Level	High School/Level	669	60,2
	Diploma	72	6,5%
	Bachelor	313	28,2%
	Magister	45	4,1%
	Doctor	12	1,1%
Occupation	Civil Servant	278	25%
	Private Employees	48	4,3%
	Army/Police	4	0,4%
	Entrepreneur	25	2,3%
	Merchant	24	2,2%
	Bethany	45	4,1%
	Fisherman	4	0,4%
	Other	683	61,5%

Source: Research data

Based on Table 2, the demographic profile of respondents reflects the geographic and socioeconomic diversity of Padang Mobile users across Kota Padang. In terms of district distribution, Lubuk Begalung emerged as the largest contributor (34.2%, $n = 380$), followed by Padang Timur (15.4%, $n = 171$) and Padang Selatan (11.3%, $n = 125$), while the remaining eight districts collectively accounted for 39.1% of the total sample, confirming adequate geographic representativeness across urban, coastal, and peri-urban areas.

Gender composition revealed a slight female majority (56.4%, $n = 627$) over male respondents (43.6%, $n = 484$), suggesting that women constitute the more active user segment of Padang Mobile among productive-age citizens. Age distribution was dominated by the 21–30 cohort (39.9%, $n = 442$), followed by respondents under 20 (18.3%, $n = 203$),

collectively indicating that younger citizens constitute the primary adopters of the platform. This pattern is consistent with prior research demonstrating that younger demographic segments exhibit greater likelihood of technology acceptance and higher digital service engagement relative to older cohorts (Venkatesh et al., 2022).

Regarding educational attainment, senior high school graduates constituted the largest group (60.2%, n = 669), followed by bachelor's degree holders (28.2%, n = 313), reflecting the general educational composition of the city's productive-age population. Occupationally, the "other" category encompassing students, informal workers, and homemakers dominated the sample (61.5%, n = 683), followed by civil servants (25.0%, n = 278). The substantial proportion of civil servants is theoretically meaningful, as this group is mandated to engage with government digital platforms as part of their professional responsibilities, potentially influencing both adoption rates and satisfaction levels within the sample (Purwanto et al., 2023). Collectively, the demographic heterogeneity of the sample supports the external validity and generalizability of the study's empirical findings among the broader Padang Mobile user population (Hair et al., 2021).

Measurement Model Assessment (Outer Model)

The measurement model was evaluated to assess the reliability and validity of all research constructs prior to structural model analysis. This assessment followed a sequential procedure examining four psychometric criteria: indicator reliability through factor loadings, internal consistency through Cronbach's Alpha, convergent validity through Average Variance Extracted (AVE), and discriminant validity through the Fornell-Larcker criterion. All evaluations adhered to the threshold standards established in PLS-SEM literature (Hair et al., 2021). The complete measurement model assessment results are presented in Table 3.

Table 3. Measurement Model Test Result

Variabel	Indikator	Loading	Crombachs Alpha	AVE	Interpretation
Perceived Usefulness (X1)	PU11	0.767	0.923	0.621	Reliable & Valid
	PU12	0.824			Reliable & Valid
	PU13	0.794			Reliable & Valid
	PU14	0.766			Reliable & Valid
	PU5	0.746			Reliable & Valid
	PU6	0.742			Reliable & Valid
	PU7	0.816			Reliable & Valid
	PU8	0.836			Reliable & Valid
Perceived Ease of Use (X2)	PEOU10	0.728	0.926	0.574	Reliable & Valid
	PEOU11	0.798			Reliable & Valid
	PEOU12	0.798			Reliable & Valid
	PEOU13	0.772			Reliable & Valid
	PEOU14	0.753			Reliable & Valid
	PEOU4	0.702			Reliable & Valid
	PEOU5	0.738			Reliable & Valid
	PEOU6	0.721			Reliable & Valid
	PEOU7	0.793			Reliable & Valid
	PEOU8	0.740			Reliable & Valid
Trust (Z)	PEOU9	0.784			Reliable & Valid
	TR11	0.802	0.932	0.595	Reliable & Valid
	TR12	0.797			Reliable & Valid
	TR13	0.789			Reliable & Valid
	TR14	0.776			Reliable & Valid
	TR15	0.759			Reliable & Valid
	TR4	0.702			Reliable & Valid
	TR5	0.731			Reliable & Valid

Variabel	Indikator	Loading	Crombachs Alpha	AVE	Interpretation
Rather than introducing new theoretical relationships, this study extends the application of TAM and the IS Success Model within the context of a local government super app in Indonesia. (M)	TR6	0.730	0.941	0.585	Reliable & Valid
	TR7	0.799			Reliable & Valid
	TR8	0.802			Reliable & Valid
	TR9	0.791			Reliable & Valid
	IU10	0.754			Reliable & Valid
	IU11	0.777			Reliable & Valid
	IU12	0.802			Reliable & Valid
	IU13	0.799			Reliable & Valid
	IU14	0.782			Reliable & Valid
	IU15	0.758			Reliable & Valid
	IU3	0.710			Reliable & Valid
	IU4	0.729			Reliable & Valid
	IU5	0.723			Reliable & Valid
	IU6	0.747			Reliable & Valid
	IU7	0.756			Reliable & Valid
User Satisfaction (Y)	IU8	0.802			Reliable & Valid
	IU9	0.791			Reliable & Valid
	US10	0.736	0.941	0.606	Reliable & Valid
	US11	0.810			Reliable & Valid
	US12	0.816			Reliable & Valid
	US13	0.793			Reliable & Valid
	US14	0.775			Reliable & Valid
	US15	0.786			Reliable & Valid
	US4	0.705			Reliable & Valid
	US5	0.719			Reliable & Valid
	US6	0.754			Reliable & Valid
	US7	0.812			Reliable & Valid
	US8	0.811			Reliable & Valid
	US9	0.813			Reliable & Valid

Source: Research data

The measurement model assessment results presented in Table 3 confirm that all research constructs satisfy the established psychometric criteria for reliability and validity, providing a robust foundation for subsequent structural model estimation.

In terms of indicator reliability, all factor loadings across the five constructs exceeded the minimum recommended threshold of 0.70 (Hair et al., 2021), ranging from 0.702 (PEOU4; TR4) to 0.836 (PU8). This consistent pattern confirms that each indicator meaningfully captures the variance of its associated latent construct, with no item requiring elimination from the measurement model.

Internal consistency was established for all constructs through Cronbach's Alpha values well above the 0.70 benchmark, specifically: PU ($\alpha = 0.923$), PEOU ($\alpha = 0.926$), Trust ($\alpha = 0.932$), IU ($\alpha = 0.941$), and User Satisfaction ($\alpha = 0.941$). These values all approaching or exceeding 0.93 indicate a high degree of inter-item coherence within each construct, confirming that the measurement scales reliably capture the intended theoretical dimensions across the sampled population (Sekaran & Bougie, 2022).

Convergent validity was assessed through the Average Variance Extracted (AVE), with all constructs surpassing the minimum criterion of 0.50: PU (AVE = 0.621), PEOU (AVE = 0.574), Trust (AVE = 0.595), IU (AVE = 0.585), and User Satisfaction (AVE = 0.606). These results confirm that each construct explains more than half of the total variance in its assigned indicators, satisfying the convergent validity requirement and demonstrating that the measurement instruments adequately represent their corresponding theoretical constructs (Hair et al., 2021).

Collectively, the outer model assessment provides strong empirical evidence that all five constructs Perceived Usefulness, Perceived Ease of Use, Trust, Intention to Use, and User Satisfaction are measured with sufficient reliability and validity to support meaningful structural path estimation in the subsequent analytical stage.

Discriminant Validity Assessment

Following the confirmation of indicator reliability and convergent validity, discriminant validity was assessed to verify that each latent construct is empirically distinct from all other constructs in the model. Discriminant validity was evaluated using the Fornell-Larcker criterion, which requires that the square root of each construct's Average Variance Extracted (AVE) represented by the diagonal values in the correlation matrix exceeds all corresponding inter-construct correlations in the same row and column (Fornell & Larcker, 1981; Hair et al., 2021). The complete discriminant validity assessment results are presented in Table 4.

Table 4. Fornell-Larcker Criterion (Assessment of Discriminant Validity)

Variable	Intention to Use (Z)	Perceived Ease of Use (X2)	Perceived Usefulness (X1)	Trust (ZM)	User Satisfaction (Y)
Intention to Use (M)	0.765				
Perceived Ease of Use (X2)	0.958	0.758			
Perceived Usefulness (X1)	0.929	0.950	0.788		
Trust (Z)	0.965	0.961	0.939	0.771	
User Satisfaction (Y)	0.956	0.949	0.942	0.958	0.779

Source: Research data

The Fornell-Larcker criterion results presented in Table 4 confirm that discriminant validity is satisfactorily established across all five constructs in the research model. The diagonal values representing the square root of each construct's AVE consistently exceed all corresponding inter-construct correlations within the same row and column, fulfilling the discriminant validity requirement as stipulated by (Fornell & Larcker, 1981; Hair et al., 2021). Specifically, the AVE square root values are: Intention to Use (0.765), Perceived Ease of Use (0.758), Perceived Usefulness (0.788), Trust (0.771), and User Satisfaction (0.779), each exceeding their respective highest off-diagonal correlation values.

It is noteworthy, however, that several inter-construct correlations in this model are substantially high, particularly between Trust and Perceived Ease of Use (0.961), Trust and User Satisfaction (0.958), Trust and Intention to Use (0.965), as well as between Perceived Usefulness and Perceived Ease of Use (0.950). These elevated correlations reflect the theoretically expected conceptual proximity among these constructs within the e-government adoption framework, wherein technology quality perceptions, trust, and satisfaction are inherently interrelated psychological states that co-evolve through citizens' accumulated service experiences (Srivastava & Teo, 2022). Despite these high correlations, the consistent superiority of diagonal AVE square root values over all off-diagonal correlations confirms that each construct retains sufficient empirical distinctiveness to be treated as a separate theoretical entity in the structural model (Hair et al., 2021).

These discriminant validity findings, taken together with the indicator reliability and convergent validity results reported in Table 2, collectively establish that the measurement model possesses adequate psychometric integrity. The confirmed reliability, convergent validity, and discriminant validity across all five constructs provide a sound empirical basis for proceeding to the structural model estimation and hypothesis testing stage (Ringle et al., 2023).

Coefficient of Determination, Predictive Relevance, and Effect Size

Following the confirmation of measurement model adequacy, the structural model was evaluated to assess its explanatory power, predictive relevance, and effect size prior to hypothesis testing. Three key metrics were examined: the coefficient of determination (R^2) reflecting the proportion of variance in each endogenous construct explained by its predictors, predictive relevance (Q^2) assessing the model's out-of-sample predictive accuracy via blindfolding, and effect size (f^2) quantifying the relative contribution of each predictor to the endogenous construct (Hair et al., 2021). The complete results are presented in Table 5.

Endogenous Variable	Predictor → Outcome	R ²	Q ²	f ²	
Trust (Z)	Perceived Usefulness (X1) → Trust (Z)	0.931	0.996	0.095	
	Perceived Ease of Use (X2) → Trust (Z)			0.723	
User Satisfaction (Y)	Perceived Usefulness (X1) → User Satisfaction (Y)	0.943		0.109	
	Perceived Ease of Use (X2) → User Satisfaction (Y)			0.004	
	Trust (Z)→ User Satisfaction (Y)			0.085	

Source: Research data

The structural model evaluation results in Table 5 demonstrate strong explanatory power and predictive accuracy across both endogenous constructs. The R^2 values for Trust (0.931) and User Satisfaction (0.943) substantially exceed the 0.75 threshold for high explanatory power, confirming that the predictor variables comprehensively account for variance in both outcome constructs (Hair et al., 2021). Predictive relevance for Trust ($Q^2 = 0.996$) further validates the model's strong out-of-sample forecasting capability.

Regarding effect sizes, PEOU exerts a dominant large effect on Trust ($f^2 = 0.723$), while PU contributes medium effects on both Trust ($f^2 = 0.095$) and User Satisfaction ($f^2 = 0.109$). Trust likewise demonstrates a medium effect on User Satisfaction ($f^2 = 0.085$). Conversely, the negligible effect of PEOU on User Satisfaction ($f^2 = 0.004$) provides early evidence that this relationship operates exclusively through trust mediation rather than as a direct pathway a finding subsequently confirmed in hypothesis testing (Cohen, 1988).

Collinearity Assessment Using Variance Inflation Factor (VIF)

To further assess the potential presence of multicollinearity, Variance Inflation Factor (VIF) analysis was performed. According to Hair et al. (2021), VIF values below 5.0 indicate that multicollinearity is not a concern, while Kock (2015) recommends a more conservative threshold of 3.3. The results of the VIF assessment are presented in Table 6.

Table 6. Collinearity Assessment Using Variance Inflation Factor (VIF)

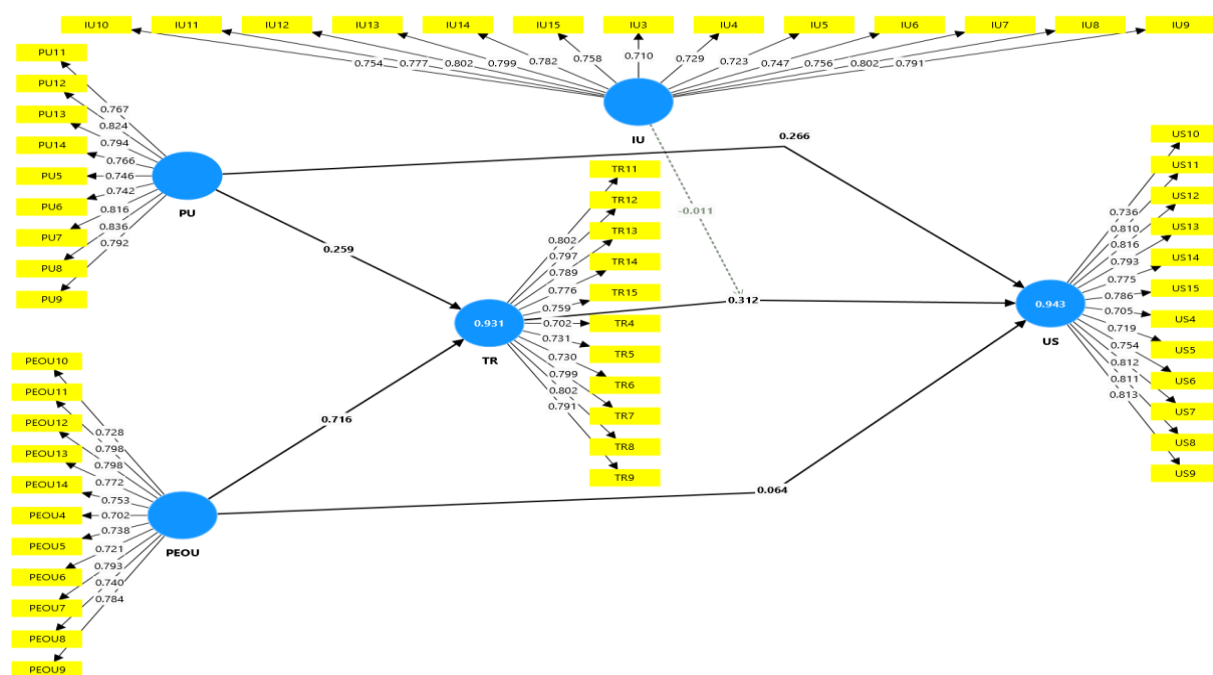
Construct	Number of Indicators	Minimum VIF	Maximum VIF	Mean VIF	Interpretation
Perceived Usefulness (PU)	9	1.894	2.630	2.196	No Collinearity
Perceived Ease of Use (PEOU)	11	1.744	2.292	2.038	No Collinearity
Trust (TR)	11	1.792	2.459	2.184	No Collinearity
Intention to Use (IU)	13	1.932	2.511	2.204	No Collinearity
User Satisfaction (US)	12	1.850	2.711	2.324	No Collinearity

Table 6 presents the Variance Inflation Factor (VIF) values used to assess potential multicollinearity among the measurement indicators. Across all constructs, VIF values ranged from 1.744 to 2.711, remaining well below the conservative threshold of 3.3 (Kock, 2015) and substantially below the maximum threshold of 5.0 recommended by Hair et al. (2021). These findings indicate that multicollinearity is not present in the measurement model and that the estimated path coefficients are unlikely to be biased by collinearity among indicators.

Therefore, the relatively high correlations observed among several latent constructs cannot be attributed to multicollinearity but are more likely associated with the conceptual proximity of the constructs within the integrated Technology Acceptance Model (TAM) and Information Systems Success Model framework.

Structural Model and Hypothesis Testing

The structural model was assessed after establishing the adequacy of the measurement model. Hypothesis testing employed bootstrapping to obtain path coefficients, t-statistics, and p-values for all direct and indirect relationships. The full structural model displaying factor loadings, path coefficients, and R² values for all endogenous constructs is illustrated in Figure 2, while the results of hypothesis testing are summarized in Table 7. A path is considered statistically significant at $p < 0.05$ (Hair et al., 2021).



Source: Research result
Figure 2. Structural Model Result

Table 7. Direct and Indirect Path Coefficient Results

Path	Original Sample	T-Statistics	P-Value	Result
Perceived Usefulness (X1) → Trust (Z)	0.259	7.367	0.000	Accepted
Perceived Ease of Use (X2) → Trust (Z)	0.716	21.010	0.000	Accepted
Perceived Usefulness (X1) → User Satisfaction (Y)	0.266	7.268	0.000	Accepted
Perceived Ease of Use (X2) → User Satisfaction (Y)	0.064	1.517	0.129	Rejected
Trust (Z) → User Satisfaction (Y)	0.312	7.068	0.000	Accepted
Perceived Usefulness (X1) → Trust (Z) → User Satisfaction (Y)	0.081	4.908	0.000	Accepted
Perceived Ease of Use (X2) → Trust (Z) → User Satisfaction (Y)	0.223	6.826	0.000	Accepted
Trust (Z)* Intention to Use (M) → User Satisfaction (Y)	-0.011	2.859	0.004	Rejected

Source: Research result

Perceived Usefulness exerts a significant positive effect on Trust, confirming H1. Citizens who recognize Padang Mobile's capacity to streamline civic transactions progressively develop confidence in the platform's reliability and the government's institutional competence. This finding aligns with Davis (1989), who established utility perception as a foundational cognitive antecedent of positive technology attitudes, and is

empirically corroborated by Alotaibi & Lowry (2023), who demonstrated that perceived usefulness significantly predicts institutional trust in government digital services across emerging economy contexts (Diaz-Guzmán Verástegui et al., 2025; Ortiz-Rodriguez & al., 2025; Susanto & al., 2015). The moderate path coefficient ($\beta = 0.259$) relative to PEOU, however, suggests that functional utility plays a secondary trust-building role compared to the experiential quality of platform interaction (Diaz-Guzmán Verástegui et al., 2025; Hooda et al., 2022; Lee-Geiller, 2024).

PEOU emerges as the dominant predictor of Trust in this model ($\beta = 0.716$, $f^2 = 0.723$), confirming H2. A frictionless, intuitively navigable interface signals institutional benevolence and technical competence to users, substantially reducing perceived performance risk and consolidating trust as a durable psychological state (Warkentin et al., 2022). This primacy of PEOU over PU in trust formation is particularly significant given the heterogeneous digital literacy profile of Padang Mobile's user population, and resonates with Verkijika (2022), who similarly identified ease of use as the strongest trust predictor among mobile government users in developing country contexts with variable digital competency levels.

PU exerts a significant positive direct effect on User Satisfaction, supporting H3. Citizens who perceive meaningful functional advantages in using Padang Mobile accumulate more favorable overall service evaluations, consistent with the IS Success Model's proposition that utility-related quality dimensions are primary drivers of satisfaction in digital government platforms (DeLone & McLean, 2003). This result is further corroborated by Dwivedi et al (2021), who demonstrated that perceived usefulness generates direct satisfaction effects that persist independently of trust-mediated pathways, and by Shareef et al (2021), who confirmed utility perception as a robust satisfaction predictor in mobile government contexts across South Asian developing economies (Diaz-Guzmán Verástegui et al., 2025; Kala et al., 2024; Luo & al., 2024; Wang & Teo, 2020).

The direct path from PEOU to User Satisfaction is non-significant, leading to the rejection of H4. The negligible effect size ($f^2 = 0.004$) and the significant full mediation confirmed under H7 collectively indicate that ease of use influences satisfaction exclusively through the trust mediation pathway rather than as an independent satisfaction driver. This finding is consistent with Purwanto et al (2023), who identified trust as a full mediator of the ease of use–satisfaction relationship in Indonesian public sector digital services, and with Escobar-Rodríguez & Bartual-Sopena (2021), who argued that in high-uncertainty institutional environments, trust constitutes an indispensable intervening mechanism between technology perceptions and positive service evaluations.

Trust exerts a significant positive effect on User Satisfaction, supporting H5. Citizens with strong platform trust approach service encounters with more favorable cognitive schemas, interpreting ambiguous outcomes charitably and demonstrating greater resilience in satisfaction levels when confronted with minor service imperfections (Warkentin et al., 2022). This relationship has been empirically validated across multiple e-government contexts Srivastava & Teo (2022) confirmed trust as a robust satisfaction predictor in Asian digital government settings, while Alotaibi & Lowry (2023) demonstrated that trust accounts for unique satisfaction variance beyond service quality perceptions collectively reinforcing trust as a strategic priority for sustaining citizen satisfaction with Padang Mobile.

Trust partially mediates the PU–User Satisfaction relationship, confirming H6. The simultaneous significance of both direct (H3) and indirect paths indicates that PU influences satisfaction through two complementary mechanisms: a direct pathway reflecting the immediate evaluative reward of functional utility, and an indirect trust-mediated pathway wherein accumulated high-utility experiences progressively strengthen institutional trust, which in turn amplifies satisfaction across subsequent service encounters. This dual-pathway

architecture is consistent with the theoretical framework of Alotaibi & Lowry (2023), who demonstrated partial trust mediation of the usefulness–satisfaction relationship in e-government contexts, and extends prior findings by explicitly decomposing PU's total satisfaction effect into its direct and trust-mediated components (Díaz-Guzmán Verástegui et al., 2025; Hooda et al., 2022; Long, 2025; Luo & al., 2024).

Trust fully mediates the PEOU–User Satisfaction relationship, representing the most theoretically significant mediation finding of this study and confirming H7. The full mediation pattern evidenced by the non-significant direct path (H4) and dominant significant indirect effect reveals that interface accessibility generates citizen satisfaction exclusively through its trust-activating mechanism rather than as a direct satisfaction source. This finding extends the theoretical contributions of Escobar-Rodríguez & Bartual-Sopena (2021) to the government super app context and reinforces the argument of Purwanto et al. (2023) that improving interface usability without simultaneously reinforcing institutional trustworthiness is unlikely to generate meaningful satisfaction improvements in Indonesian e-government platforms.

The moderating effect of Intention to Use on the relationship between Trust and User Satisfaction was statistically significant ($\beta = -0.011$, $t = 2.859$, $p = 0.004$). However, because the interaction coefficient is negative, the result indicates that Intention to Use weakens rather than strengthens the effect of Trust on User Satisfaction. Therefore, H8 is rejected, as the empirical finding contradicts the hypothesized positive moderating effect. This finding differs from the theoretical expectation that users with stronger intentions to use a digital platform would translate their trust into higher satisfaction (Venkatesh et al., 2022; Dečman, 2021). A possible explanation is provided by Expectation Confirmation Theory (ECT), which suggests that users with higher usage intentions also tend to have higher expectations regarding system performance. Consequently, trust alone may not be sufficient to enhance satisfaction unless the actual service performance meets these expectations. This interpretation is consistent with Kala et al. (2024), who argue that user satisfaction in e-government services depends not only on trust but also on the confirmation of users' expectations through actual service experiences. These findings suggest that Intention to Use functions as a negative boundary condition, reducing the influence of Trust on User Satisfaction among users with stronger expectations.

CONCLUSIONS AND RECOMMENDATIONS

This study examined the factors influencing user satisfaction with the Padang Mobile Super App by integrating the Technology Acceptance Model (TAM) and the Information Systems Success Model within the context of local e-government services. The findings demonstrate that perceived usefulness and perceived ease of use play important roles in developing user trust, while trust serves as a key mechanism in enhancing user satisfaction. The results further indicate that trust partially mediates the relationship between perceived usefulness and user satisfaction and fully mediates the relationship between perceived ease of use and user satisfaction. In contrast, the proposed moderating role of intention to use was not supported, indicating that stronger intentions to use the application do not necessarily reinforce the positive influence of trust on user satisfaction. Instead, users appear to evaluate their satisfaction based on the overall quality of the digital service experience rather than relying solely on trust.

Rather than proposing new theoretical relationships, this study contributes by extending the application of the Technology Acceptance Model and the Information Systems Success Model within the context of a local government super app in Indonesia. The findings provide empirical evidence that trust remains an essential mechanism linking users' technology perceptions with satisfaction, while highlighting that the moderating role of intention to use

may vary depending on the characteristics of digital public services and users' expectations. These results contribute to enriching the contextual understanding of citizen behavior in digital government services, particularly in developing countries.

From a practical perspective, the findings suggest that local governments should prioritize improving system usability, functional benefits, and service reliability to strengthen citizens' trust and enhance user satisfaction. Digital transformation initiatives should focus not only on encouraging citizens to adopt government applications but also on ensuring that the quality of digital services consistently meets users' expectations. Strengthening service quality, responsiveness, and user experience will be essential for increasing public satisfaction and sustaining the long-term use of government super apps.

This study has several limitations. First, the cross-sectional research design limits the ability to capture changes in user perceptions over time. Second, the study was conducted within a single local government environment, which may limit the generalizability of the findings to other regions or countries. Future studies are encouraged to employ longitudinal research designs, compare multiple government digital platforms, and incorporate additional variables such as digital literacy, service quality, user experience, or expectation confirmation to provide a more comprehensive understanding of user satisfaction in digital government ecosystems.

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