



The Influence of Perceived Usefulness, Performance Expectancy, and Social Influence on Intention to Use the Digital Population Identity (IKD) Program Mediated by Social Media Usage

Hardianto^{1*}, Erna Sofriana Imaningsih²
Mercu Buana University, Indonesia

Corresponding Author: Hardianto hardianto487@gmail.com

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ABSTRACT

This study analyzes how Perceived Usefulness (PU), Performance Expectancy (PE), and Social Influence (SI) affect intention to adopt Indonesia's Digital Population Identity (IKD), with Social Media Usage (SMU) as a mediator. Surveying 133 Jabodetabek respondents and using SEM-PLS, results show PE and SI significantly increase SMU, while PU has a negative (insignificant) effect. SMU positively influences intention, confirming its mediating role—fully bridging SI and intention, but not PU or PE. PE and SI also directly boost intention, unlike PU. Findings highlight the need to emphasize IKD's benefits, leverage social networks, and optimize social media for public outreach.

INTRODUCTION

The rapid advancement of digital technology has transformed how governments deliver public services, particularly in the realm of population administration. Indonesia's Digital Population Identity (IKD) program represents a significant step toward modernizing civil registration and improving access to public services. As part of Indonesia's commitment to achieving Sustainable Development Goal 16, which promotes inclusive institutions and access to justice, the IKD initiative aims to create a more efficient and equitable system for identity verification (UNDP, 2023). However, despite its potential benefits, public adoption of this digital identity system has been slower than anticipated, raising important questions about the factors influencing citizen acceptance (Wibisono & Pratama, 2022; Nugroho et al., 2021). Recent studies suggest that technological readiness, digital literacy, and trust in government are critical to determining the success of digital identity initiatives in developing countries (Kshetri & Voas, 2021).

Recent data reveals a paradoxical situation in Indonesia's digital landscape. While internet penetration has reached 79.5% of the population and social media usage continues to grow exponentially, participation in the IKD program remains below government targets. This discrepancy suggests that mere technological availability and digital connectivity do not automatically translate into adoption of government digital services. The case of IKD adoption presents a valuable opportunity to examine the complex interplay between technology acceptance factors and social influences in the context of public sector digital transformation.

The theoretical framework for this study draws from the Unified Theory of Acceptance and Use of Technology (UTAUT), which identifies performance expectancy, social influence, and facilitating conditions as key determinants of technology adoption (Venkatesh et al., 2019). However, existing models often fail to fully account for the role of social media in shaping perceptions and behaviors toward government digital initiatives. This gap is particularly relevant in Indonesia, where platforms like Instagram and Facebook serve as primary sources of information and social interaction for millions of citizens (We Are Social & Meltwater, 2024). Recent research emphasizes the significant influence of social media in shaping public trust, digital literacy, and behavioral intentions toward e-government services (Zhou et al., 2023; Ardiansyah & Nurdin, 2022). Understanding how social media usage mediates traditional adoption factors could provide crucial insights for improving digital identity programs and increasing public engagement.

For more clarity, the following data shows the growth in Digital Population Identity (IKD) users over the past three years.

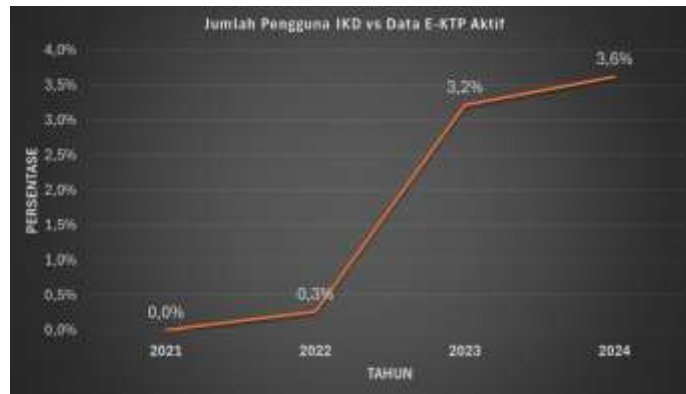


Figure 1. Chart of Digital Population Identity (IKD) user growth
Source: Data processed by researchers, 2025

The table above presents the estimated number of Digital Population Identity (IKD) users from 2021 to 2024. While there has been a significant increase in the number of users from year to year, actual performance has yet to reach the established target.

Several unique characteristics of the Indonesian context make this study particularly significant. First, the country's diverse population and varying levels of digital literacy across regions create distinct challenges for nationwide digital initiatives. Second, recent high-profile data breaches, including the 2024 National Data Center incident, have heightened public concerns about digital security and privacy. These factors combine to create a complex environment for implementing digital identity systems, where technical capabilities must be balanced with public trust and acceptance.

This research makes several important contributions to both theory and practice. From a theoretical perspective, it extends the Unified Theory of Acceptance and Use of Technology (UTAUT) by incorporating social media usage as a mediating variable, offering new insights into digital adoption processes in the context of public services (Dwivedi et al., 2023). Recent literature acknowledges that user engagement on platforms like social media can significantly influence behavioral intention and trust in digital government systems (Alraja et al., 2022; Sharma et al., 2022). Furthermore, this study challenges conventional assumptions by exploring scenarios where perceived usefulness may negatively impact adoption intentions, particularly when users perceive increased complexity or data privacy concerns (Wirtz & Müller, 2019). These theoretical advancements contribute to a more nuanced understanding of technology acceptance in the public sector, especially in developing countries experiencing rapid digital transformation and evolving citizen expectations.

From a practical standpoint, the findings offer valuable guidance for policymakers and program implementers. By identifying which factors most strongly influence IKD adoption and how social media can effectively mediate these relationships, the research suggests targeted strategies for improving program participation. The study's focus on Jabodetabek residents provides specific insights into urban adoption patterns, while also highlighting considerations that may apply to other regions. These practical implications are timely as Indonesia continues to expand its digital identity infrastructure.

The significance of this research extends beyond Indonesia's borders, offering lessons for other nations implementing similar digital identity systems. As governments worldwide increasingly turn to digital solutions for public administration, understanding the human and social dimensions of technology adoption becomes ever more critical. This study not only advances academic knowledge about digital adoption processes but also provides actionable insights that can help bridge the gap between technological potential and real-world implementation, ultimately contributing to more inclusive and effective digital governance.

The paper is organized as follows: after this introduction, Section 2 reviews relevant literature and develops hypotheses, Section 3 describes the research methodology, Section 4 presents the findings, and Section 5 discusses implications and conclusions. Through this structure, the study systematically examines the factors influencing IKD adoption while providing both theoretical and practical contributions to the field of digital governance

LITERATURE REVIEW

Perceived Usefulness

Davis (1989, as cited in George, 2018) defines perceived usefulness as the degree to which a user believes that using a particular system will enhance their performance. This construct is a critical determinant of technology acceptance, as individuals are more likely to adopt a technology if they perceive tangible benefits from its use.

Further elaborations by Nasri and Charfeddine (2012, as cited in Bangkara & Mimba, 2016, p. 2412) describe perceived usefulness as the extent to which a person believes that adopting a new system will improve their work efficiency. Similarly, Desmayanti (2012, as cited in Novindra & Rasmini, 2017, p. 1123) defines it as the perceived utility of a new system in delivering practical benefits to users. Rahmatsyah (2011, as cited in Wibowo et al., 2015, p. 443) adds that perceived usefulness reflects a user's subjective assessment of whether a system will simplify and enhance their work performance.

In synthesis, perceived usefulness can be summarized as an individual's belief that adopting a new system will provide meaningful advantages, such as increased efficiency, convenience, and effectiveness in task completion.

Perceived Usefulness in the Context of Digital Population Identity (IKD)

For Indonesia's Digital Population Identity (IKD) program, perceived usefulness encompasses:

- a. Convenience: Eliminating the need for physical documents by enabling digital access to administrative services anytime, anywhere.
- b. Efficiency: Reducing bureaucratic delays, queue times, and risks of losing physical documents.
- c. Effectiveness: Streamlining public service delivery and improving data management accuracy.

A higher perception of these benefits is expected to increase public intention to adopt IKD.

Indicators and Dimensions of Perceived Usefulness

Jogiyanto (2009, cited in Wibowo et al., 2015, p. 444) identifies four key dimensions:

- a. Productivity: The extent to which the system enhances output compared to prior methods.
- b. Job Performance/Effectiveness: Improvements in work efficiency post-adoption.
- c. Importance to Job: The system's perceived criticality for task completion.
- d. Overall Usefulness: The net positive impact of the system on operational success.

These dimensions provide measurable criteria for assessing IKD's perceived utility among users.

Social Media Usage

Clow and Baack (2018) define social media as web- and mobile-based technologies that enable interactive dialogue, transforming traditional one-way communication into dynamic, two-way exchanges among individuals, businesses, and communities. The emergence of social media has significantly changed interaction patterns, allowing people to connect with family, friends, businesses, and even strangers. This transformation creates both opportunities and challenges for marketing departments across organizations of various sizes, from small enterprises to multinational corporations.

Budiman (2015) highlights the extensive market reach of social media, which empowers businesses to engage with a wide audience at a lower cost compared to conventional media. Nevertheless, this openness also poses challenges, such as difficulties in managing user-generated content and maintaining brand consistency within a creative and unregulated digital environment.

Social Media Usage in the Context of Digital Identity Adoption

In the context of Indonesia's Digital Population Identity (IKD) program, social media serves as a critical platform for:

- a. Disseminating Information: Educating the public about IKD's benefits and usage procedures.
- b. Engaging Stakeholders: Facilitating two-way communication between the government and citizens to address concerns and build trust.
- c. Amplifying Social Influence: Leveraging peer networks to encourage adoption through testimonials and shared experiences.

Indicators of Effective Social Media Usage: The 4C Framework

Brian Solis (2010) proposes the 4C framework to evaluate social media effectiveness:

- a. Context: The narrative or story shared, tailored to the audience's language and cultural preferences.
- b. Communication: The ability to listen, understand, and respond effectively to foster meaningful dialogue.

- c. Collaboration: Partnerships between entities (e.g., government and citizens) that create mutual value.
- d. Connection: Building and sustaining relationships to strengthen community engagement.

This framework provides actionable metrics for assessing how social media usage mediates public intention to adopt IKD.

Unified Theory of Acceptance and Use of Technology (UTAUT)

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a theoretical framework widely applied to understand technology adoption behavior. Originally developed by Venkatesh et al. (as cited in Dwivedi et al., 2019), UTAUT synthesizes four key determinants influencing technology acceptance:

1. Performance Expectancy: The degree to which a user believes the technology will enhance job performance.
2. Effort Expectancy: The perceived ease of using the technology.
3. Social Influence: The extent to which social networks or peers influence adoption.
4. Facilitating Conditions: The availability of resources (e.g., infrastructure, support) to enable usage.

Recent studies continue to validate UTAUT's applicability across diverse domains, including education, healthcare, and public services (Dwivedi et al., 2019; Alawadhi & Morris, 2020). In particular, its relevance is evident in evaluating user acceptance of e-government innovations such as Indonesia's Digital Population Identity (IKD) program.

Performance Expectancy in UTAUT

Performance expectancy refers to a user's belief that adopting a system will improve their work outcomes. For instance, Hidayat (2019) synthesizes earlier models and identifies five relevant sub-dimensions:

1. Perceived Usefulness: The extent to which a system enhances job performance.
2. Extrinsic Motivation: User engagement driven by external rewards (e.g., promotions, salary benefits).
3. Job Fit: The system's alignment with job requirements.
4. Relative Advantage: The perceived superiority of the innovation over prior solutions.
5. Outcome Expectations: Anticipated consequences of using the technology.

These sub-dimensions have also been supported in more recent empirical studies that expand the performance expectancy construct, especially in e-government and smart technology applications (e.g., Alalwan et al., 2021; Al-Qaysi et al., 2020), ensuring the continued relevance and applicability of this theoretical dimension.

Intention

Intention refers to an individual's conscious decision or willingness to engage in a specific behavior, reflecting their motivation to act (Syaifuddin &

Rahman, 2022). In the context of technology adoption, intention represents a user’s plan to use or continue using a system, driven by perceived alignment with their needs and desires (Iriani, 2019).

Khan (2020) emphasizes that intention is closely tied to emotional satisfaction—when users derive pleasure from an activity, they are more likely to sustain usage over time. Synthesizing these perspectives, intention can be defined as the user’s deliberate willingness to adopt or reuse a particular technology, influenced by cognitive evaluations and affective responses.

Factors Influencing Intention

Iriani (2019) categorizes the drivers of intention into three key factors:

1. Internal Drives: Basic needs (e.g., sustenance, security) that motivate actions (e.g., working to earn income).
2. Social Motives: External influences from peers, culture, or societal expectations.
3. Emotional Factors: Positive or negative feelings associated with the behavior.

For Digital Population Identity (IKD), intention is shaped by:

1. Perceived Benefits: Efficiency gains from digital services.
2. Trust: Confidence in data security and system reliability.
3. Social Proof: Endorsement from influential community members

Dimensions and Indicators of Intention

Venkatesh & Davis (2000, cited in Luna et al., 2019) identify three measurable indicators:

1. Likelihood of Use: Probability of adopting the technology.
2. Interest in Near-Term Adoption: Willingness to use the technology soon.
3. Opportunistic Usage: Intent to engage when circumstances permit.

These dimensions provide a framework for assessing public intention to adopt IKD, linking theoretical constructs to empirical measurement.

The following is the framework of thought for this research.

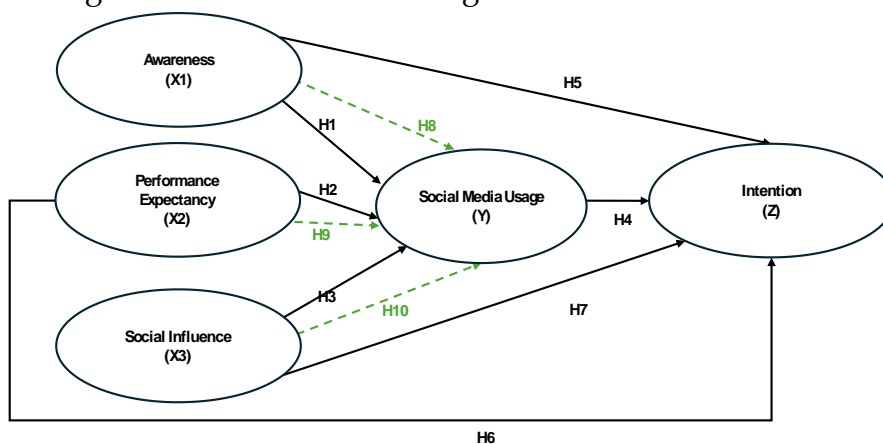


Figure 2. Research Conceptual Framework

METHODOLOGY

This study employs a quantitative descriptive research design to examine the influence of user awareness, performance expectancy, and social influence on intention to adopt Indonesia's Digital Population Identity (IKD) program, with social media usage as a mediating variable. Following Sekaran & Roger (2013), this approach systematically collects numerical data to describe characteristics of the target population and test hypothesized relationships through statistical analysis. The research process, conducted from July to December 2024, involves problem identification, theoretical framework development, data collection, and statistical validation using Structural Equation Modeling (SEM).

The target population consists of Indonesian adults (aged 17+) residing in Greater Jakarta (Jabodetabek) who meet three criteria: (1) possess valid identity documentation, (2) have internet access and digital devices for IKD usage, and (3) demonstrate awareness of the IKD program. As the exact population size is unknown, the sample size was determined using Hair et al.'s (2017) recommendation of 5-10 observations per estimated parameter. With 19 indicators across all constructs, a multiplier of 7 yielded a minimum sample of 133 respondents, selected through purposive non-probability sampling to ensure respondents met the screening criteria of social media activity and basic IKD knowledge.

Data analysis follows a multi-stage process: First, descriptive statistics summarize respondent demographics and variable distributions. Next, measurement model testing evaluates construct reliability (Cronbach's $\alpha > 0.7$) and validity (AVE > 0.5). The inner model assessment examines structural relationships using bootstrapping in SEM-PLS, followed by hypothesis testing of path coefficients ($p < 0.05$) to determine direct/indirect effects. This rigorous approach balances methodological robustness with practical constraints, enabling generalization of findings to Indonesia's urban digital service adopters while accounting for mediation effects of social media engagement. The study adheres to ethical guidelines by anonymizing respondent data and obtaining informed consent.

RESEARCH RESULT

Convergent Validity Test (Outer Model)

Convergent validity assesses the construct validity of measurement models. According to Hair et al. (2019), an indicator is considered to have good validity if its factor loading value exceeds 0.70. The estimation results obtained using SmartPLS 3 software provide the following model test output:

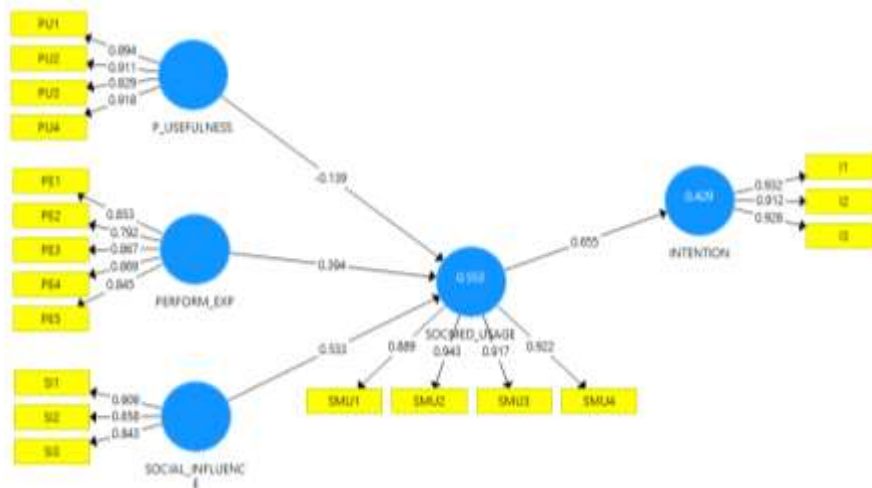


Figure 3. Algorithm PLS Result

This test ensures that the indicators strongly correlate with their respective latent constructs, confirming the measurement model's reliability before proceeding to structural model evaluation.

The following are the results of the loading factor test to determine whether the indicators passed the convergent validity test in this study.

Table 1. Three Box Method

Variable	Questionnaire	Outer Loading	Condition	Description
Perceived Usefulness (X1)	PU1	0.894	>0,7	Passed
	PU2	0.911	>0,7	Passed
	PU3	0.829	>0,7	Passed
	PU4	0.918	>0,7	Passed
Performance Expectancy (X2)	PE1	0.853	>0,7	Passed
	PE2	0.792	>0,7	Passed
	PE3	0.867	>0,7	Passed
	PE4	0.869	>0,7	Passed
	PE5	0.845	>0,7	Passed
Social Influence (X3)	SI1	0.909	>0,7	Passed
	SI2	0.858	>0,7	Passed
	SI3	0.843	>0,7	Passed
Social Media Usage (M)	SMU1	0.889	>0,7	Passed
	SMU2	0.943	>0,7	Passed
	SMU3	0.917	>0,7	Passed
	SMU4	0.922	>0,7	Passed
Intention (Y)	I1	0.932	>0,7	Passed
	I2	0.912	>0,7	Passed
	I3	0.928	>0,7	Passed

Source: Data processed by researchers, 2025

Based on Table 1 and the PLS Algorithm Results Figure above, it can be seen that all indicators have passed the test because they have loading factor

values above 0.70. Therefore, all indicators can proceed to the next testing process.

Next, an average variance extracted (AVE) test will be conducted to further strengthen the convergent validity results. The criterion is that if the AVE value is >0.5 (Hair et al., 2019), the construct used in the study is valid. The following presents the results of the average variance extracted test using the PLS 3.0 program.

Table 2. AVE Test

<i>Latent Variable</i>	<i>Average Variance Extracted (AVE)</i>	<i>R Critics</i>	<i>Description</i>
Perceived Usefulness (X1)	0.790	0,5	Valid
Performance Expectancy (X2)	0.715	0,5	Valid
Social Influence (X3)	0.758	0,5	Valid
Social Media Usage (M)	0.843	0,5	Valid
Intention (Y)	0.854	0,5	Valid

Source: Data processed by researchers, 2025

Table 2 shows the convergent validity results based on the average variance extracted value. These results indicate that all latent variables have an AVE value greater than 0.5. This indicates that the indicators forming the latent construct have good convergent validity when viewed from the Average Variance Extracted (AVE) value.

Discriminant validity can be seen from the cross-loading value. Fornell and Larcker (1981) in Ghozali (2014:45) stated that the correlation value of an indicator with its construct must be greater than the correlation value between the indicator and other constructs.

The Fornell-Larcker Criterion test is conducted where the square root of the AVE of a construct must be greater than its correlation value with other constructs. The following table shows the results of the Fornell-Larcker Criterion test.

Table 3. Fornell-Larcker Criterion Test

	Intention	Perform_Exp	P-Usefulness	Social_Influence	Socmed_Usage
Intention	0.924				
Perform_Exp	0.676	0.846			
P-Usefulness	0.529	0.835	0.889		
Social_Influence	0.633	0.632	0.530	0.872	
Socmed_Usage	0.649	0.607	0.463	0.691	0.918

Source: Data processed by researchers, 2025

Based on the results of the Fornell Larcker Criterion test, it can be seen that the square root of the AVE of each construct with the correlation between other constructs in the model (Henseler et al, 2015). From these results, it can be explained that the square root value of the AVE of each construct is greater than the correlation value between constructs with other constructs in the model, so it can be said that the Fornell Larcker Criterion test has a good Discriminant Validity value and the model has met the criteria.

Structural Model Testing (Inner Model)

After ensuring that the measurements of the outer model meet standards, the next step is to test the inner model. Inner model testing involves developing a model based on concepts and theory to analyze the relationship between exogenous (independent) and endogenous (dependent) variables.

Inner model analysis is conducted to ensure that the structural model is robust and accurate. Structural model testing is performed by analyzing the R-square, f-square, and Q-square values. The steps for testing the structural model (inner model) in this study are as follows.

Table 4. R-Square Test

Variable	R-Square	Description
Social Media Usage (M)	0.553	Moderate
Intention (Y)	0.429	Moderate

Source: Data processed by researchers, 2025

The test results in Table 4. show that the R-square value for Social Media Usage is 0.553. This value indicates that 55.3% of the variability in the Social Media Usage construct can be explained by the variability in the Intention construct. This value indicates a "moderate" relationship, with the remaining 44.7% explained by other variables outside the study. Meanwhile, the R2 value for the Intention variable is 0.429, indicating a simultaneous influence of Perceived Usefulness, Performance Expectancy, Social Influence, and Social Media Usage on Intention of 42.9%. This indicates a "Moderate" relationship, while the remaining 57.1% is explained by other variables outside the study.

Table 5. f-Square Test

Variable	f-Square	Result
Social Media Usage (M) → Intention (Y)	0,752	Strong
Perceived Usefulness (X1) → Social Media Usage (M)	0,087	Weak
Perceived Usefulness (X1) → Intention (Y)	0,004	Weak
Performance Expectancy (X2) → Social Media Usage (M)	0,013	Weak
Performance Expectancy (X2) → Intention (Y)	0,018	Weak
Social Influence (X3) → Social Media Usage (M)	0,389	Strong
Social Influence (X3) → Intention (Y)	0,026	Weak

Source: Data processed by researchers, 2025

Table 5. shows that the overall relationship between the independent variables and the dependent variable tends to be small or weak. The highest f-square score is the relationship between Social Media Usage and Intention. The conclusion value is Large or Strong, indicating a strong influence of Social Media Usage on Intention in the IKD program.

Table 6. Q-Square Test

Variable	SSO	SSE	Q ² (=1-SSE/SSO)	Description
Social Media Usage (M)	399.000	258.534	0.352	Predictive Relevance Kuat
Intention (Y)	532.000	288.856	0.457	Predictive Relevance Kuat

The table above shows that the Q square test results are >0, indicating that the variables in this model have strong predictive relevance. The highest value, Q2 = 0.457, predicts the endogenous variables. This indicates that the Social Media Usage and Intention variables have strong and relevant predictive value.

Path Coefficients (Hypothesis Testing)

The hypothesis in this study can be determined from model calculations using SmartPLS 3.0 bootstrapping techniques. Bootstrapping testing also aims to minimize the problem of abnormal research data (Rozandy, 2013). The following output values were obtained:

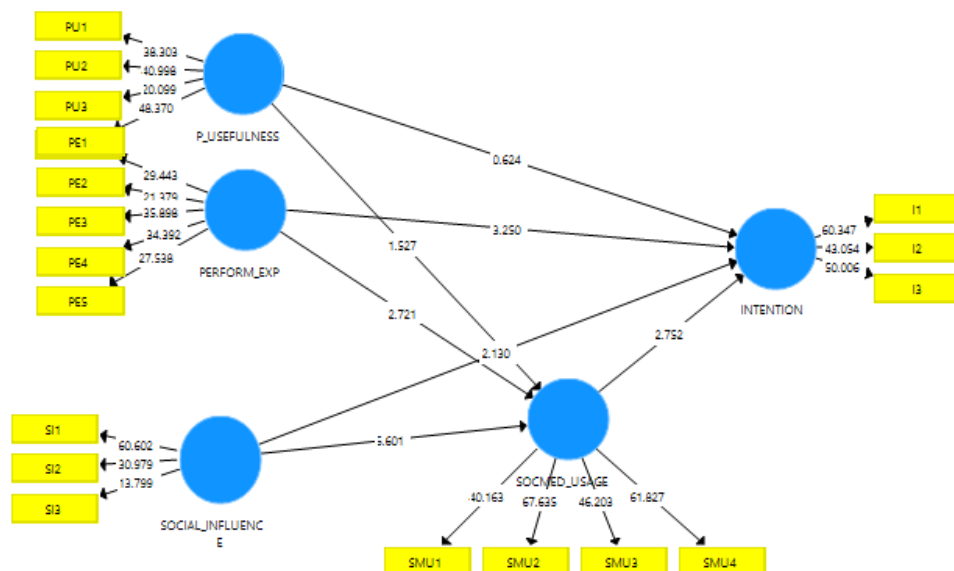


Figure 4. PLS Path Coefficients
Source: Data processed by researchers, 2025

Table 7. *Path Coefficients Test Result*

	Variable	Original sample (O)	Sample Mean (Z)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Description	Result
H1	P_USEFULNESS (X1) -> SOCMED_USAGE (M)	0.210	0.216	0.089	2.365	0.018	Positive Significant	Accepted
H2	PERFORM_EXP (X2) -> SOCMED_USAGE (M)	0.405	0.396	0.149	2.721	0.007	Positive Significant	Accepted
H3	SOCIAL_INFLUENCE (X3) -> SOCMED_USAGE (M)	0.513	0.524	0.092	5.601	0.000	Positive Significant	Accepted
H4	SOCMED_USAGE (M) -> INTENTION (Y)	0.274	0.276	0.100	2.752	0.006	Positive Significant	Accepted
H5	P_USEFULNESS (X1) -> INTENTION (Y)	-0.080	-0.079	0.129	0.624	0.533	Positive Significant	Rejected
H6	PERFORM_EXP (X2) -> INTENTION (Y)	0.448	0.447	0.138	3.250	0.001	Positive Significant	Accepted
H7	SOCIAL_INFLUENCE (X3) -> INTENTION (Y)	0.203	0.201	0.095	2.130	0.034	Positive Significant	Accepted
H8	P_USEFULNESS (X1) -> SOCMED_USAGE (M) -> INTENTION (Y)	0.334	0.282	0.159	2.105	0.036	Positive Significant	Accepted
H9	PERFORM_EXP (X2) -> SOCMED_USAGE (M) -> INTENTION (Y)	0.354	0.354	0.090	3.936	0.000	Positive Significant	Accepted
H10	SOCIAL_INFLUENCE (X3) -> SOCMED_USAGE (M) -> INTENTION (Y)	0.141	0.144	0.060	2.359	0.019	Positive Significant	Accepted

Source: Data processed by researchers, 2025

DISCUSSION

The study's findings provide compelling evidence about the factors influencing public intention to adopt Indonesia's Digital Population Identity (IKD) program. Analysis of the path coefficients reveals three key direct relationships that shape adoption behavior. First, both performance expectancy ($\beta=0.448$, $p<0.01$) and social influence ($\beta=0.203$, $p<0.05$) demonstrate significant positive effects on intention, confirming their central role in technology acceptance as proposed in UTAUT. However, perceived usefulness shows an unexpected non-significant direct relationship ($\beta=-0.080$, $p>0.05$), suggesting respondents don't automatically translate perceived benefits into adoption intent without additional factors.

The research uncovers social media usage's critical mediating role in the adoption process. While perceived usefulness doesn't directly affect intention, it significantly influences social media engagement ($\beta=0.210$, $p<0.05$), which in turn affects intention ($\beta=0.274$, $p<0.01$). This full mediation effect ($\beta=0.334$, $p<0.05$) reveals that social media platforms serve as essential channels for converting awareness of IKD's benefits into actual adoption intent. Similarly, social media usage partially mediates the effects of both performance expectancy ($\beta=0.354$,

$p < 0.01$) and social influence ($\beta = 0.141$, $p < 0.05$), amplifying their impact on intention.

These findings have important theoretical implications, extending the UTAUT model by demonstrating how social media usage operates as a crucial mediator in e-government adoption contexts. The results particularly highlight social influence's strong effect ($\beta = 0.513$, $p < 0.001$) on social media usage, suggesting that peer recommendations and social proof significantly drive digital engagement with government programs. For policymakers, the study suggests prioritizing social media campaigns that showcase real user experiences and practical benefits, while addressing potential concerns about data security and system reliability that may underlie the weak direct effect of perceived usefulness. The urban focus of the study indicates need for further research on rural adoption patterns and longitudinal studies to track behavior change over time.

CONCLUSIONS

This study concludes that perceived usefulness, performance expectancy, and social influence play significant roles in influencing the use of social media, which in turn affects the intention to adopt the Digital Population Identity (IKD) program. First, perceived usefulness is found to have a positive and significant impact on social media usage, indicating that the more respondents perceive the IKD program as beneficial, the more likely they are to engage with related content on social media platforms. This suggests that respondents are beginning to appreciate the practical value of the program as communicated through digital media, which encourages active participation.

Likewise, performance expectancy also shows a significant and positive relationship with social media usage. Respondents who believe that the IKD program can enhance their performance or daily administrative tasks tend to use social media more intensively as a tool for exploring and interacting with program-related information. Social influence further strengthens this relationship; when respondents are surrounded by people who support or recommend the IKD program, their use of social media increases accordingly, reflecting the importance of social encouragement in digital engagement behavior.

In terms of behavioral intention, the study finds that social media usage positively and significantly influences individuals' intention to adopt the IKD program. This underscores the role of social media as an effective medium in shaping public interest and intention toward digital innovations. However, perceived usefulness alone does not significantly influence intention directly, which may be attributed to limited understanding or insufficient clarity in the communication of program benefits.

Performance expectancy does have a significant direct effect on intention, implying that when individuals believe the program will improve their performance, they are more inclined to adopt it. Similarly, social influence directly affects intention, highlighting the strong role that social environment and peer recommendations play in shaping behavioral decisions.

Furthermore, mediation analysis reveals that perceived usefulness significantly mediates the relationship between social media usage and intention. This means that social media helps form a favorable perception of the IKD program's usefulness, which then encourages adoption. On the other hand, performance expectancy does not serve as an effective mediator in this context, indicating that social media usage alone is not sufficient to translate performance expectations into adoption intention. Interestingly, social influence is found to significantly mediate the relationship between social media usage and intention, suggesting that social media strengthens the effect of peer or community influence on the public's willingness to adopt the program.

Overall, the findings emphasize the crucial role of social media not only as a channel for communication but also as a driver of perception and intention, especially through the dimensions of perceived usefulness and social influence. These insights provide strategic implications for increasing public adoption of the IKD program through targeted social media engagement and socially driven digital campaigns.

RECOMMENDATIONS

Based on the findings of this study, several practical recommendations can be proposed to enhance the effectiveness of the IKD (Digital Population Identity) program adoption strategy. First, it is important for stakeholders, especially government institutions and program implementers, to strengthen the dissemination of information through social media platforms. Given the significant role social media plays in influencing public intention, campaigns should be designed to not only increase visibility but also clearly communicate the usefulness and practical benefits of the IKD program. Visual and interactive content, such as infographics, video tutorials, and testimonials from users, can be utilized to build stronger perceived usefulness and trust in the program.

Second, since performance expectancy significantly influences both social media usage and intention, efforts should be made to demonstrate how the IKD program can directly improve efficiency and simplify public administration processes. Clear, relatable examples of how IKD benefits everyday tasks – such as accessing health services, education, or digital identity verification – will likely enhance the public's performance-related expectations and motivate adoption.

Moreover, given the influence of social environments, the government and related agencies are encouraged to involve community leaders, influencers, and public figures in spreading positive messages about IKD. Their involvement can strengthen the element of social influence, which has proven to be both a direct and mediating factor in increasing intention. Collaborative campaigns with schools, local governments, and civil society organizations can create a sense of collective support and urgency in adopting the digital identity system.

Lastly, future efforts should focus on improving public understanding of the IKD program. Although perceived usefulness mediates the relationship between social media and intention, it does not directly influence intention, suggesting a gap in the public's comprehension or perception of the program's benefits. Therefore, educational content that is simple, localized, and solution-

oriented should be consistently disseminated to ensure that the intended messages resonate with the target audience. This approach will help build a more informed and motivated public, ultimately leading to greater adoption of the IKD program.

ADVANCED RESEARCH

Future research is encouraged to expand on the findings of this study by exploring additional variables that may influence the adoption of digital identity programs such as IKD. While this study focused on perceived usefulness, performance expectancy, and social influence as the primary predictors, future researchers may consider incorporating other relevant constructs such as trust, perceived risk, digital literacy, or ease of use to provide a more comprehensive understanding of user behavior in the context of e-government services.

Moreover, longitudinal studies could be conducted to observe changes in user perceptions and behavioral intentions over time, especially as the IKD program becomes more integrated into public services. Such studies would offer valuable insights into how public adoption evolves and which communication strategies are most sustainable in the long term. Additionally, qualitative methods such as in-depth interviews or focus group discussions may complement quantitative approaches by uncovering deeper motivations, concerns, and experiences of users, especially in different demographic or regional segments.

It would also be beneficial for future research to conduct comparative studies between urban and rural populations to examine potential digital divide issues that may affect access to and acceptance of the IKD program. Finally, expanding the research scope to include cross-cultural or cross-country comparisons could offer broader insights into how cultural and institutional contexts shape digital identity adoption globally. These future directions will contribute significantly to the development of more inclusive, effective, and user-centered digital identity systems.

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