DETERMINANTS OF PUBLIC PERCEPTION TOWARD THE ADOPTION OF DIGITAL TECHNOLOGY IN PUBLIC SERVICES IN ENREKANG REGENCY

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ABSTRACT

The urgency of adopting digital services in public administration has become a central agenda for improving efficiency, transparency, and citizen participation. This study aims to identify the determinants of public perception regarding the adoption of digital services in Enrekang Regency, Indonesia. A mixed-method design was employed, combining a survey of 342 respondents with in-depth interviews and focus group discussions. Quantitative findings indicate high levels of *Performance Expectancy (PE)* and *Behavioral Intention (BI)*, suggesting that citizens perceive clear benefits and show willingness to adopt digital services. However, weaknesses remain in *Facilitating Conditions (FC)*, *Contextual Relevance (CRS)*, and *Resistance to Change*, which limit broader adoption. Qualitative insights reinforce these findings, highlighting challenges in infrastructure, digital literacy, and cultural resistance. Policy implications emphasize the need for stronger internet infrastructure, massive digital literacy programs, and simplified, user-friendly service design.

Keywords: Digital Transformation; Public Services; TAM-UTAUT; Social Perception; Adoption

1. INTRODUCTION

Development digital transformation in service public has become global phenomenon that is not can avoided. In various countries, digitalization administration government done for increase efficiency bureaucracy, expanding access services, as well as strengthen transparency in governance public. The previous e -*Government model* only focusing on data digitalization now has develop going to integration technology latest like *cloud computing*, *big data analytics*, *blockchain*, and intelligence artificial. Developed countries as Estonia and Singapore have show that adoption digital technology is capable speed up service, improve participation citizens, and strengthen Power global competitiveness. However, in developing countries, the implementation digital transformation is still face various obstacles, especially related infrastructure, digital literacy, and trust public to system electronics.

In In the Indonesian context, the digital transformation agenda has formulated in policy System Government Based Electronic (SPBE) via Regulation Presidential Decree No. 95 of 2018. Regulation This confirm importance digital integration in bureaucracy government for promote governance reform and create service effective public. In addition that, digital transformation becomes part from vision Indonesia Golden Age 2045, where technology information and communication viewed as instrument important in strengthen capacity institutional and power competition national. With thus, adoption digital technology in service public No only become demands administrative, but also national strategy in welcoming the era of revolution Industry 4.0 and society based knowledge.

Relevance digitalization for Indonesian society is increasingly real in increase efficiency, transparency, and participation public. Efficiency reflected from acceleration access service public, savings costs, and reductions burden manual administration. Transparency realized through data openness and

convenience public in monitor the service process. While that, participation public strengthened through provision digital channels that enable public convey aspirations, doing transactions, as well as access information in a way directly. Therefore that, success digital transformation is not only depends on readiness infrastructure technology, but also on acceptance public as users main service the.

Although various policy has issued, implementation digitalization service the public in Indonesia, especially in the regions, still face challenge serious. First, the low community digital literacy hinder ability they in utilise application service public. Many users still difficulty understand digital procedures, especially among public rural areas, traditional MSME actors, and groups age continue. Second, resistance to changes also become factor important. Some officials and the public Still comfortable with manual and reluctant system switch to service based technology. Conditions this create gap between visionary policies with field practice.

Besides that, limitations infrastructure, especially in remote areas like Enrekang Regency, increasingly complicate implementation digitalization. Unreliable internet access even, quality low network, as well as lack of device supporters reduce effectiveness utilization digital applications. The lack of socialization and mentoring in implementation service public based technology also becomes problem main. Many people No know benefit available applications Because lack of promotion and education from government.

Other issues that are not lost important is concern related data security and trust to government. People are often hesitant to provide personal data through digital applications because Afraid will abuse or data leak. Uncertainty about protection privacy potential weaken trust public to digital system. Therefore that, study about determination perception public in adoption digital technology is becoming very important for understand dynamics social, psychological, and structural factors that influence reception service public based electronics.

The novelty of study This lies in the use approach *mixed method* in Enrekang Regency, an area with characteristics unique socio-economic and geographical characteristics. Different with studies previously generally city - focused big or developed countries, research This highlight dynamics reception digital technology in the region rural areas that have challenge separately. Besides that, research This integrate two framework theoretical large, namely TAM and UTAUT, for study factor reception public in a way more comprehensive. This integration enrich analysis with add dimensions like *trust in government*, *resistance to change*, and *contextual relevance*, which are rarely lifted in study previously. Other contributions offered is give understanding empirical that can enrich global literature on *e-Government* and *local governance.* Research results This expected No only beneficial for development theory, but also become references practical for maker policy in designing a digitalization strategy service appropriate public with need local Indonesian society.

2. THEORY

2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) developed by Davis (1989) is one of the framework most influential conceptual in explain reception users to technology. This model leave from premise that adoption technology determined by two factor main, namely *Perceived Usefulness* (PU) and *Perceived Ease of Use* (PEOU). PU refers to the extent to which an individual believe that use technology certain can increase its performance, while PEOU describes belief that technology the easy understood and used without meaningful endeavor.

In context service digital public, second draft This is very relevant. PU is reflected from belief public that government digital applications, such as system online licensing or service online health, can speed up access and improve efficiency services. While the PEOU is related with to what extent the application public designed to be user-friendly users, with simple interface and uncomplicated procedures convoluted. If society consider that application the useful and easy used, then level reception to digital services will increases. On the other hand, if application considered complicated or No give profit significant, resistance public will more big. With Thus, TAM becomes framework base for understand Why part public willing, and some other reluctant to adopt digital services in bureaucracy government.

2.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

While TAM focuses on two variables Mainly, *the Unified Theory of Acceptance and Use of Technology* (UTAUT) developed by Venkatesh et al. (2003) extends the model with enter factor social and conditions environment. UTAUT identifies four factor Keywords: *Performance Expectancy (PE)*, *Effort Expectancy (EE)*, *Social Influence (SI)*, and *Facilitating Conditions (FC)*. PE describes expectation performance users to benefit technology, EE highlights convenience usage, SI explains influence norm social and pressure environment, while FC covers support technical, infrastructure, and resources available power.

In study this, UTAUT is extended with add other variables that are more contextual in service public, namely *trust in government*, *resistance to change*, and *contextual relevance*. *Trust in government* become important Because reception society is greatly influenced by beliefs that government capable guard data security, transparency, and justice in use technology. *Resistance to change* highlight existence obstacle psychological or a culture in which society and the apparatus reluctant leave old way. Meanwhile *contextual relevance* emphasize on suitability digital applications with needs and conditions local society. With enter variables addition this, UTAUT becomes more framework comprehensive For explain adoption digital technology in context service public in the area.

2.3 Public Perception in Adoption Technology

Besides factor technical details explained through TAM and UTAUT, perception society is also greatly influenced by dimensions social and psychological. One of the factor important is *trust in government*. Trust This related with to what extent society certain that government capable protect privacy, managing data with safe, and provide benefit real through digital services. The low trust can reduce interest public For use applications, even If application the easy used and useful.

Another factor is norm social (*social norms*). Influence family, friends, colleagues work, or superior can determine whether somebody feel need use certain digital applications. For example, when agency government obligatory use system electronic certain employees or public pushed for follow although initially reluctant.

Besides that, digital literacy plays role crucial. Society with level high digital literacy tend more fast accept technology new Because own skills base in use device, understand digital information, and assess security system. On the other hand, *the* digital divide becomes challenge large, especially in the area rural with limited internet access. The gap This No only related infrastructure, but also aspects knowledge, skills, and beliefs self in use digital technology.

2.4 Research Previously

Study about adoption *e-government* has Lots carried out, both in developed countries and developing . In developed countries like Estonia and Singapore, success digitalization service public supported by infrastructure adequate, adaptive regulations, and culture society that is accustomed to with technology. On the other hand, in developing countries like Indonesia, factors like limitations infrastructure, low digital literacy, as well as resistance culture bureaucracy often become inhibitor.

Studies in Southeast Asia show that factor social and trust the public is very decisive success implementation *e-government*. In Indonesia, several study highlight importance digital literacy of civil servants government and society as key the success of SPBE. However, some big study Still city - focused big or institutions center, while studies at the level district, in particular area rural like Enrekang, still limited.

The gap study This important for answered, because adoption technology in the region rural face different challenges with urban. With characteristics socio-economic and geographical characteristics, the study in Enrekang Regency provides perspective new about How public local respond digitalization service public. This is at a time expand literature international which has been This tend to be biased towards developed country context or metropolitan city.

3. RESEARCH METHODS

Study This use approach *Mixed Methods Sequential Explanatory*, namely a research strategy that combines method quantitative and qualitative in a way sequentially. Stage First is quantitative data collection and analysis through survey, then to be continued with qualitative data collection in the form of interviews and discussions group focused group discussion (FGD). This design chosen Because capable give a clearer picture comprehensive: results quantitative explain trend general in reception public to digital technology, while results qualitative give context, reasons, and explanation deep behind the numbers obtained. With Thus, integration both of them can strengthen validity results and provide understanding intact about factors that influence adoption digital services.

Stage quantitative done through survey with amount respondents consisting of 342 people from public general public, Micro, Small and Medium Enterprises (MSMEs), students, and power educators in Enrekang Regency. Election respondents done stratified purposively for ensure representation various group users service digital public.

Instrument study arranged based on framework *Technology Acceptance Model* (TAM) and *Unified Theory of Acceptance and Use of Technology* (UTAUT). Questionnaire use five- point Likert scale (1 = very much agree to 5 = strongly agree) to measure perception respondents related variables research, such as *Performance Expectancy* (PE), *Effort Expectancy* (EE), *Social Influence* (SI), and *Facilitating Conditions* (FC).

Data collected analyzed use method *Structural Equation Modeling* (SEM). Analysis This chosen Because capable test connection simultaneous between latent variables, all at once measure contribution of each factor in influence *Behavioral Intention* (BI) for adopt digital technology. Validity and reliability testing instruments are also performed for ensure consistency and accuracy measurement.

Stage qualitative implemented after analysis quantitative finished for delve into results obtained. Interview deep done with officials from various agency key, including the Communication and Information Service (Diskominfo), Population and Civil Registration Service Civil Service (Disdukcapil), Health Service, Investment and Services Service Integrated One- Stop Service (DPMPTSP), and the Regional Development Planning Agency (Bappeda).

Besides interviews, research this also holds *Focus Group Discussion* (FGD) involving community, academics, providers service public, as well as stakeholders interest others. FGD is used For dig view collective, identifying challenges, and search solution strategic in implementation digital services in Enrekang.

Qualitative data analyzed use *Thematic Analysis*, namely method data encoding for find pattern or theme relevant main with focus research. Validity results strengthened with technique triangulation, good between data sources (surveys, interviews, FGD) and between methods (quantitative and qualitative).

Variables studied in study This includes:

a. **Performance Expectancy (PE):** to what extent society believe that digital services can increase effectiveness service public.
b. **Effort Expectancy (EE):** the extent to which digital services are considered easy used.
c. **Social Influence (SI):** influence environment social to decision public for adopt digital services.
d. **Facilitating Conditions (FC):** availability infrastructure and support adequate technical.
e. **Behavioral Intention (BI):** intention public for use digital services in the future.
f. **Trust in Government:** trust public to government in guard transparency and data security.
g. **Previous Experience**: level trust public to digital experiences, especially related experience use application of interest other.
h. **Resistance to Change:** level resistance or rejection to transition from manual system to digital system.
i. **Availability of Technical Assistance**: level influence training, SOPs and guidelines, in push public use digital applications.
j. **Contextual Relevance:** suitability digital services with needs and conditions local public.

For ensure data quality, research This do a number of step testing. At this stage quantitative, normality test done through Kolmogorov-Smirnov and Shapiro-Wilk. Reliability test instrument done using Cronbach's Alpha, while validity construct tested with *Confirmatory Factor Analysis* (CFA) via SEM.

At the stage qualitative, validity findings strengthened with triangulation, good triangulation source (compare results from respondents different) and triangulation Method (comparing survey data, interviews, and FGD). Approach This ensure that findings study No only consistent but also reflects reality on the ground in a way intact.

4. RESEARCH RESULTS AND DISCUSSION

Quantitative Results

Analysis quantitative done based on survey data against 342 respondents. Descriptive results show that instrument study own sufficient data distribution well, though there is indication enough variety high in some dimensions. The average value (*mean*) of each construct give description about perception public to adoption digital technology in public services, including:

SPSS results on the sample the number 342 is as following:

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Instrument survey	342	100.0%	0	0.0%	342	100.0%

Descriptives

			Statistics	Std. Error
Instrument survey	Mean		193.53	1,013
	95% Confidence Interval for Mean	Lower Bound	191.53	
		Upper Bound	195.52	
	5% Trimmed Mean		193.42	
	Median		191.00	
	Variance		351,171	
	Standard Deviation		18,740	
	Minimum		152	
	Maximum		235	
	Range		83	
	Interquartile Range		24	
	Skewness		.178	.132
	Kurtosis		-.140	.263

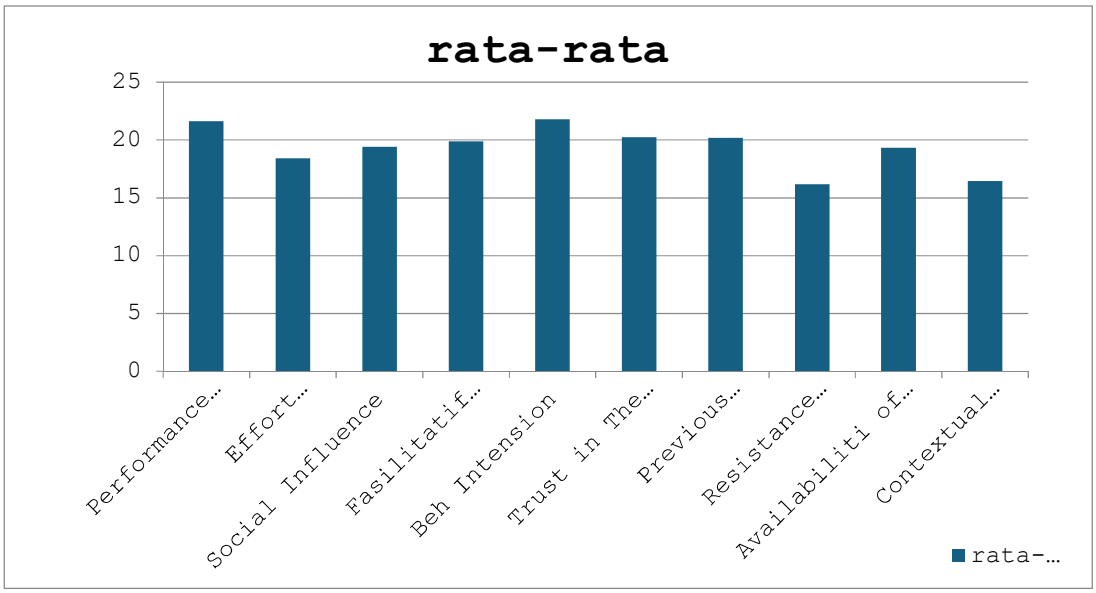
Tests of Normality

	Kolmogorov-Smirnov [a]			Shapiro-Wilk		
	Statistics	df	Sig.	Statistics	df	Sig.
Instrument survey	.100	342	.000	.978	342	.000

Lilliefors Significance Correction

Rera ata Every Category :

classification	average
Performance Expectancy	21.63
Effort Expectancy	18.42
Social Influence	19.42
Facilitative Condition	19.88
Behavioral Intention	21.81
Trust in the Government	20.23
Previous Experience	20.18
Resistance Change	16.19
Availability of Technical Assistance	19.33
Contextual Relevance of Services	16.44



a. **Performance Expectancy (PE):** average score of 21.63. This figure show that public believe digital applications can increase performance service public and make it easier access to service.
b. **Effort Expectancy (EE):** score 18.42, relative more low compared to PE. This is indicates that public Still feel There is difficulty in understand method use application.
c. **Social Influence (SI):** score 19.42. This value show existence influence environment social, although No dominant, in push public use digital applications.
d. **Facilitating Conditions (FC):** score 19.88. This means that the infrastructure and support technical Enough available, but not optimal in all areas, especially area remote.
e. **Behavioral Intention (BI):** score of 21.81, which is mark highest. This is confirm that public own intention strong For use digital applications in the future.
f. **Trust in Government:** score 20.23. This show that level trust public to government Enough good, especially related transparency and accountability.
g. **Previous Experience**: score 20.18, This describe that level trust public to experience Enough good, especially related experience use application of interest other.
h. **Resistance to Change:** score of 16.19, which is mark lowest. This figure signify existence resistance significant from part community and apparatus to change going to digital system.
i. **Availability of Technical Assistance**: score 19.33, This value show existence influence training, SOPs and guides, although No dominant, in push public use digital applications.
j. **Contextual Relevance (CRS):** score 16.44. Low score This indicates that part application Not yet fully in accordance with need or context local public.

Quantitative results This show clear pattern: society own perception positive to benefit digital applications (high PE and BI), however Still face constraint technical, resistance culture, and relevance context service.

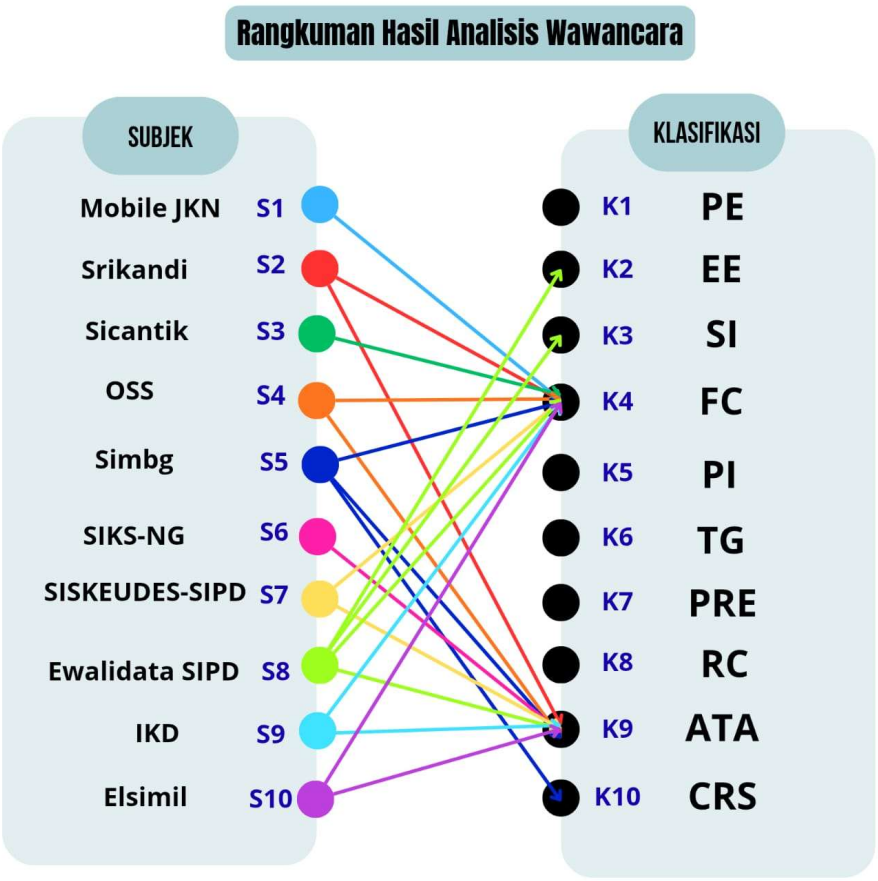
Qualitative Results

Qualitative results obtained through interview in-depth and discussion group focused group discussion (FGD) with officials government, academics, and public users digital applications. Qualitative data enrich findings quantitative with give explanation narrative about experience real public in use application.

A number of analyzed applications includes:

a. **Mobile JKN:** make things easier access service health, including registration participants, checking bills, as well as online consultation. However, users complain disturbance slow internet network access.
b. **Heroine:** facilitate management archives electronics, rated transparent and efficient, but still minimal socialization.
c. **Sicantik & OSS:** help in management permission business, considered make things easier bureaucracy, however not enough friendly for users with low digital literacy.
d. **SIMBG:** relevant in management permission building, but use Still limited to certain circles certain.
e. **SIKS-NG & Siskeudes-SIPD:** support poverty and financial data input village, very helpful, but apparatus village confess need more Lots training.
f. **Evaldata:** relatively more easy used compared to application others, and influenced by the impulse social from superior.
g. **IKD (Identity) Digital Population:** considered strategic for efficiency administration population, but part public still in doubt about data security.
h. **Elsimil :** beneficial For stunting detection , but Not yet popular among public wide .

From each application the 1 respondent was taken to be interviewed more deep, so that There were 10 respondents interviewed with results as following:



Constraint main thing found is limitations internet infrastructure, lack of socialization, as well as resistance culture manual labor. On the contrary, factors prominent positive is improvement transparency, efficiency, and access service more public fast.

4.3 Mixed Method Synthesis

Quantitative and qualitative results show interconnectedness Strengthening. High scores on **Performance Expectancy** and **Behavioral Intention** consistent with findings qualitative which shows that public see benefit real from digital applications, for example Mobile JKN in service health and OSS in licensing. On the other hand, the score low on **Facilitating Conditions** and **Contextual Relevance** explained by limitations internet infrastructure and lack of adjustment application with need local. **Resistance to Change** is also low in accordance with findings interviews, where many apparatus Still used to with system manual. **Social Influence** relatively moderate, but proven important in the case SIPD e-walidata, where the use of application influenced by impulse superior or policy agency. Meanwhile that is, **Trust in Government** Enough high, especially in applications that display transparency like Srikandi and Sicantik. This is indicates that openness and accountability can strengthen trust public.

With Thus, mix method analysis provides complete picture: society own desire and see benefit digital applications, but adoption full Still hampered by infrastructure, digital literacy, and resistance culture.

4.4 Discussion with Literature

Research result This in line with studies international about adoption *e-government*. In developed countries like Estonia and Singapore, adoption digital technology is successful Because supported infrastructure strong, high digital literacy, and culture transparency. Meanwhile that, research in developing countries as Jordan shows that limitations infrastructure and resistance public become challenge major (Alomari et al., 2012; Alryalat et al., 2023). In Indonesian context, results study this strengthen findings previously that digital literacy and trust public is factor key reception digital services. However, research This add perspective new with highlight importance **contextual relevance**, namely to what extent the application customized with need local. This is not yet Lots discussed in literature international, so that become contribution important theoretical.

From the side implications theoretical, research This expand TAM and UTAUT framework with enter variables *trust in government* and *resistance to change*. Second factor This proven significant in context service public in the region growing. With Thus, research this enrich understanding about adoption digital technology in sector public with add dimensions socio-psychological and cultural. From the side practical, research this confirm the importance of policy strategy based context local government need strengthen internet infrastructure, improving digital socialization and literacy, simplifying design applications, as well as ensure transparency For build trust. Approach This believed more effective compared to just implementing a uniform digitalization model without consider need public local.

5. CONCLUSION

Study This show that perception public to digitalization service public in Enrekang Regency is relatively positive. This is reflected from height score *Performance Expectancy* and *Behavioral Intention*, which indicates that public consider useful digital applications in increase efficiency service at a time own intention strong for Keep going use it. However thus, some obstacle Still Enough significant, especially related with limitations internet infrastructure in the region remote, low digital literacy of society, as well as resistance to change from manual to digital systems. Obstacles This become factor crucial that slows down adoption full digital services at the level local.

In a way theoretical, research This confirm relevance framework *Technology Acceptance Model* (TAM) and *Unified Theory of Acceptance and Use of Technology* (UTAUT) in explain reception public to service digital public. However, the findings also indicate that both models need enriched with variables appropriate additions with context service public in developing countries. The addition dimensions *trust in government* and *resistance to change* proven important in explain dynamics acceptance in the field. With Thus, research This contribute in adoption model development more technology adaptive to context social and cultural aspects in rural areas. From the perspective of practical, research This give a number of recommendation strategic. First, the government need increase internet infrastructure, especially in remote areas rural areas, so that digital services can be accessible in a way evenly. Second, the design application service public should made more simple, *user-friendly,* and suitable with need public local. Third, digital literacy programs and socialization massive must intensified for ensure public own skills base in use digital services. Lastly, transparency and accountability in management application need guarded for strengthen trust public to government. With steps this, the digitalization process service public expected can walk more inclusive and sustainable.

POINTS FOR PRACTITIONERS

- **Prioritize Digital Infrastructure Investment:** Reliable and accessible internet connectivity is the foundation of effective digital governance. Policymakers should allocate resources to expand broadband coverage, particularly in rural and peripheral regions, to reduce access inequality and enable the full potential of e-government platforms.
- **Simplify Service Design and Enhance Usability:** Many users struggle with complex interfaces or fragmented digital applications. Government agencies must co-design applications with end-users to ensure simplicity, clarity, and inclusivity. User-friendly interfaces not only improve adoption rates but also strengthen citizens' confidence in digital governance.

- **Strengthen Digital Literacy and Continuous Training:** Sustained adoption depends on citizens' and civil servants' digital competencies. National and local governments should implement continuous literacy programs, workshops, and community-based training to ensure equitable digital participation across demographic groups.
- **Build Trust through Transparency and Accountability:** Public trust is a key determinant of adoption. Authorities must demonstrate transparency in data governance, privacy protection, and service responsiveness. Visible communication of accountability measures enhances public confidence and reduces skepticism toward digital systems.
- **Adopt Context-Sensitive Implementation Strategies:** Local socio-cultural contexts strongly influence adoption outcomes. Instead of applying uniform digitalization policies, government agencies should adapt implementation strategies to local conditions, norms, and readiness levels, ensuring relevance and long-term sustainability of e-government initiatives.

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