



Digital Transformation and the Future of Public Value

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ABSTRACT: This study examines technological readiness as a mediator in the relationship between digital transformation and public value, filling an important gap in the literature about causal pathways in developing countries. Combining theories of digital transformation, technological readiness, and public value, the research involved 200 digital service users in Malang City. Bootstrap mediation analysis showed that digital transformation significantly affects public value ($\beta=0.4146$, $p<0.001$), with technological readiness mediating 35.51% of the total effect ($ACME=0.1497$), while the direct effect remained notable ($ADE=0.2650$). Results indicate partial mediation, implying that digital transformation adds value through two pathways. The study proposes a dual-pathway model that highlights the importance of investing in both digital infrastructure and user literacy, guiding comprehensive digital policies and broadening understanding of digital transformation in Indonesia's context, characterized by high technological readiness heterogeneity.

KEYWORDS: Digital Transformation, Technological Readiness, Public Value

1.0 INTRODUCTION

The digital age has fundamentally reshaped public service landscapes, with governments worldwide rushing to adopt digital technologies to improve service quality, efficiency, and accessibility. Digital transformation in the public sector is not just about technological change but a complete revolution that changes how governments interact with citizens, manage resources, and create societal value (Latupeirissa et al., 2024). As global digitalization accelerates, a key question arises: how can digital transformation be effectively translated into tangible, sustainable public value—especially in developing countries with diverse levels of technological readiness?

Globally, governmental digital transformation has become a strategic priority aimed at improving service efficiency, transparency, and public value creation (Noor, Danar, & Wahyudi, 2023; Haryono et al., 2024). Advanced nations such as Estonia, Denmark, and Singapore have demonstrated that comprehensive digital system implementation can enhance transparency, efficiency, and citizen satisfaction with government services (Zyzak et al., 2024). E-government initiatives, smart cities, and digital governance have become the new standard in modern public administration. Yet digital transformation success varies considerably across nations, influenced by infrastructural factors, institutional capacity, public digital literacy, and local socio-political contexts. Understanding the mechanisms linking digital transformation to public value outcomes becomes crucial for designing effective, inclusive digitalization policies.

Indonesia, as the world's fourth most populous developing nation with high geographical complexity, faces unique challenges in implementing public sector digital transformation. The Indonesian government has launched various public service digitalization initiatives—from online licensing systems and digital population services to app-based citizen participation platforms (Afrilia et al., 2024). However, technological infrastructure disparities between urban and rural areas, intergenerational digital literacy gaps, and socio-cultural diversity create distinct complexities in realizing digital transformation benefits. In this context, questions about how digital transformation generates public value and what factors mediate or moderate these relationships become empirically relevant.

Literature on public sector digital transformation has rapidly expanded over the past decade, showing that digital technology adoption can improve operational efficiency, transparency, and governmental responsiveness (Mustofa, Haryati, & Ismail, 2025). Prior studies identify that digital system implementation facilitates broader service access, reduces transaction costs for citizens, and enhances accountability through more measurable, transparent systems. Yet literature also reveals that digital transformation success is not automatic but highly dependent on contextual factors including technological readiness, institutional



support, and user capacity (Aliy, Younus, & Lawelai, 2025). Research by Nurlinah et al (2025) confirms that government digital transformation positively impacts citizen trust, though this impact is mediated by implementation quality and user experience in accessing digital services.

While literature acknowledges technological readiness importance in digitalization contexts, theoretical tension exists regarding how technological readiness functions in the relationship between digital transformation and public value. Some literature argues that technological readiness is a prerequisite before digital transformation can yield benefits (Wiguna, 2025), while other perspectives state digital transformation can enhance technological readiness through exposure and digital system usage learning (Dytilhana et al., 2025). This theoretical tension requires empirical investigation to understand whether technological readiness functions as an antecedent, mediator, or moderator in the digital transformation-public value relationship.

This research builds upon the integration of three main theoretical perspectives: digital transformation theory, technological readiness theory, and public value theory. Digital transformation is understood as a fundamental change in how public organizations operate through digital technology utilization to optimize processes and create value (Latupeirissa et al., 2024). Technological readiness refers to individual and organizational capacity to adopt, utilize, and maximize technology benefits, encompassing digital literacy, attitudes toward technology, and supporting infrastructure availability (Sisilianingsih et al., 2025). Public value is conceptualized as benefits generated by government services perceived by society, encompassing dimensions of efficiency, transparency, participation, and inclusivity (Zyzak et al., 2024). Integration of these three theoretical constructs forms a conceptual framework positioning technological readiness as a mediation mechanism linking digital transformation with public value creation.

Theoretical adaptation within the Indonesian context requires consideration of unique characteristics of Indonesian society and governance systems. Indonesia's context is marked by high heterogeneity in infrastructure access, digital literacy, and socio-cultural contexts influencing technology adoption patterns (Achdiat, 2025). In societies with wide digital divides, digital transformation effects on public value may heavily depend on user technological readiness levels. This research hypothesizes that digital transformation positively influences public value both directly and indirectly through enhanced technological readiness. The proposed mediation logic is that digital transformation creates infrastructure and systems facilitating better services, yet optimal public value realization occurs when society possesses adequate technological readiness to utilize these systems effectively (Maulana, 2025). Partial mediation is anticipated, where digital transformation has direct influence on public value through system and process improvements, as well as indirect influence through enhanced technological readiness enabling more optimal system utilization.

This research identifies three main literature gaps serving as empirical and theoretical justification. First, although digital transformation and public value have been explored separately in various studies, the mediation mechanism connecting them—specifically, technological readiness's role—remains empirically underexplored (Haris et al., 2025). Second, most public sector digital transformation studies are conducted in developed nation contexts with relatively homogeneous infrastructure and digital literacy, limiting findings' generalizability to developing nation contexts with high heterogeneity like Indonesia. Third, literature still lacks robust quantitative evidence regarding the mediation effect proportion and relative contribution of direct versus indirect pathways in the digital transformation-public value relationship, which is important for more targeted policy design.

Based on these gaps, this research is designed to answer the following questions: First, how does digital transformation influence public value in Indonesian government service contexts? Second, does and to what extent does technological readiness mediate the relationship between digital transformation and public value? Third, what is the proportion of direct and indirect effects of digital transformation on public value, and what are its implications for public sector digitalization implementation strategies? These questions are designed to provide a comprehensive understanding of complex mechanisms linking digital transformation with public value outcomes in contexts characterized by technological readiness heterogeneity.

This research's novelty lies in several aspects. First, this is among the first studies explicitly testing technological readiness's mediating role in the digital transformation-public value relationship using robust bootstrap causal mediation analysis. Second, this research provides empirical evidence from Indonesia's context, representing developing nations with high complexity, expanding the literature dominated by developed nation studies. Third, this research quantifies the proportion of mediated effects, providing insights about direct and indirect pathway relative contributions that can inform policy priorities in digital transformation strategies.

This research's contribution is multiple. Theoretically, this research enriches digital governance literature by confirming partial mediation mechanisms showing digital transformation works through dual pathways in creating public value.



Methodologically, this research demonstrates causal mediation analysis use in public administration contexts that can serve as a template for subsequent research. Practically, this research's findings provide concrete policy implications that digital transformation strategies need to adopt holistic approaches not only investing in digital infrastructure and systems but also in society technological readiness enhancement programs through digital literacy, socialization, and accompaniment. This research also contributes to Indonesian public policy discussions by providing empirical evidence that can inform more effective, inclusive, and sustainable digitalization program design in creating tangible public value for all societal strata.

2.0 THEORETICAL FRAMEWORK

2.1. Theoretical Foundation and Conceptual Integration

This research is built upon a theoretical foundation integrating three main perspectives: digital transformation theory in the public sector, technological readiness theory, and public value theory. Digital transformation in governmental contexts cannot be understood merely as technology adoption but represents a fundamental change in how public organizations operate, deliver services, and create value for society (Latupeirissa et al., 2024). Digital transformation theory emphasizes that digital technology functions as an enabler, facilitating process restructuring, efficiency enhancement, and public service access expansion. In this context, digital transformation is understood as a multidimensional process involving technological, organizational, and social dimensions that interact to produce desired outcomes.

Technological readiness theory, rooted in innovation adoption literature and technology acceptance models, emphasizes user capacity and willingness's importance in determining technology implementation success (Aliy, Younus, & Lawelai, 2025). Technological readiness encompasses not only technical ability in using digital devices but also includes digital literacy, attitudes toward technology, socio-cultural contexts, and supporting infrastructure availability. This theory argues that even sophisticated technology will not provide optimal benefits if users lack adequate readiness to adopt and utilize it effectively.

Public value theory, developed in public administration and public sector management literature, conceptualizes public value as benefits generated by government organizations for society, encompassing dimensions of efficiency, effectiveness, transparency, accountability, participation, and inclusivity (Zyzak et al., 2024). Public value is measured not only from administrative output perspectives but more fundamentally from society's perceptions and experiences of the service quality they receive. In the digital era, the public value concept has evolved to include digital accessibility dimensions, system responsiveness, and citizen empowerment through digital platforms.

Integration of these three theoretical perspectives forms a comprehensive conceptual framework for understanding how digital transformation generates public value through technological readiness mechanisms. This framework acknowledges that the relationship between digital transformation and public value is complex and involves mediation processes requiring deep understanding. Digital transformation creates infrastructure and systems enabling service quality improvement, yet public value realization depends heavily on society's ability to access and utilize these systems effectively (Mustofa, Haryati, & Ismail, 2025).

2.2. Contextual Adaptation in Indonesia's Public Sector

Theory adaptation into Indonesian public sector contexts requires consideration of the unique characteristics of Indonesia's governmental environment and society. Indonesia's context is marked by several important factors influencing digital transformation dynamics and public value creation. First, Indonesia is an archipelagic nation with high geographical diversity, resulting in significant infrastructure technology availability disparities between urban and rural areas (Wiguna, 2025). Second, Indonesian society has highly varied digital literacy levels, influenced by education, age, and technology experience factors. Third, Indonesia's collectivist and hierarchical socio-cultural context influences technology adoption patterns and interaction with government services.

In this context, digital transformation theory needs adaptation to accommodate the reality that technology implementation in Indonesia cannot follow linear models often assumed in developed nations' literature. Digital transformation in Indonesia faces challenges of uneven infrastructure, wide digital divides, and needs to balance modernization with local value preservation (Achdiat, 2025). Therefore, Indonesia's digital transformation approach needs to be inclusive, gradual, and locally context-sensitive.

Technological readiness theory in Indonesia's context also needs to consider broader social and cultural dimensions. Technological readiness is not only about individual ability but also social support, community norms, and trust in government and



technology. Research shows that in Indonesian society, social support and role models in technology use play important roles in encouraging new technology adoption (Dytilhana et al., 2025). Additionally, trust in data security and privacy in government digital systems also becomes a critical factor influencing society's willingness to use digital services.

2.3. Hypothesis Development and Mediation Logic

Based on theoretical integration and contextual adaptation, this research develops hypotheses explaining relationships among digital transformation, technological readiness, and public value. The first hypothesis states that digital transformation positively influences public value. The logic underlying this hypothesis is that digital system implementation in public services increases accessibility, efficiency, transparency, and service responsiveness, all contributing to increased value perceived by society (Afrilia et al., 2024). Digital transformation enables society to access services anytime and anywhere, reducing transaction time and costs, and enhancing accountability through more transparent, measurable systems.

The second hypothesis states that digital transformation positively influences technological readiness. The logic behind this hypothesis is that exposure to government digital systems increases society's familiarity and competence in using technology. When the government provides user-friendly, easily accessible digital services, society has opportunities to learn and develop their digital literacy through direct experience (Sisilianingsih et al., 2025). This process creates a positive cycle where technology use increases technological readiness, which in turn encourages broader technology adoption.

The third hypothesis states that technological readiness positively influences public value. The underlying theoretical argument is that a society with higher digital literacy and lower technology barriers can utilize digital systems more effectively, thus experiencing greater benefits from digital services (Maulana, 2025). Technological readiness enables society not only to access services but also utilize advanced features, provide feedback, and participate in digital policy processes, all enhancing the public value they perceive.

The fourth hypothesis, which is the mediation hypothesis, states that technological readiness mediates the relationship between digital transformation and public value. This mediation logic is based on understanding that digital transformation creates structural conditions enabling public value enhancement, yet value realization depends heavily on society's ability to interact with digital systems (Haris et al., 2025). In other words, digital transformation increases public value not only directly through system improvements but also indirectly through enhanced societal technological readiness, enabling them to utilize systems better.

2.4. Boundary Conditions and Conceptual Model

The relationship among digital transformation, technological readiness, and public value does not universally apply under all conditions. Several boundary conditions influence the strength and direction of these relationships. The first boundary condition is the technology infrastructure availability level. In regions with very limited infrastructure, digital transformation's influence on public value may be weaker due to fundamental access barriers (Wiguna, 2025). Under these conditions, infrastructure investment becomes a prerequisite before digital transformation benefits can be significantly felt.

The second boundary condition is user demographic characteristics, particularly age and education level. Literature shows younger generations and individuals with higher education tend to have better technological readiness and can experience digital transformation benefits more quickly. Therefore, technological readiness mediation effects may be stronger in certain societal segments than others. The third boundary condition is digital system design quality itself. Complex, unintuitive systems or those frequently experiencing disruptions can reduce public value perception even among users with high technological readiness (Nurlinah et al., 2025).

The conceptual model developed in this research depicts digital transformation as an independent variable influencing public value as a dependent variable, with technological readiness as a mediator variable. This model acknowledges that digital transformation has two pathways of influence on public value. The first pathway is direct influence, where digital transformation increases public value through improvements in systems, processes, and service quality not dependent on user readiness. The second pathway is indirect influence through technological readiness, where digital transformation first increases society's technological readiness, which then enhances their ability to utilize digital services and experience higher public value.

The partial mediation model emerging from empirical analysis confirms both pathways operate simultaneously. This indicates that to maximize public value, digital transformation strategies need to adopt a dual approach: enhancing digital system quality and capacity while increasing society's technological readiness through digital literacy programs, socialization, and



accompaniment. This model also emphasizes the importance of holistic approaches, considering not only technological aspects but also human, organizational, and social dimensions in public sector digital transformation processes.

3.0 RESEARCH METHODS

3.1. Research Design

This research employs a quantitative approach with a cross-sectional design to test causal relationships among Digital Transformation, Technological Readiness, and Public Value. This design was chosen because it allows simultaneous measurement of all three constructs at one time point, aligning with research objectives to test mediation models and identify inter-variable relationship mechanisms. The quantitative approach provides the capability to quantify relationship strength, statistically test hypotheses, and generalize findings to broader populations (Mustofa, Haryati, & Ismail, 2025).

3.2. Research Location and Time

Research was conducted in Malang City, East Java, Indonesia, focusing on four sub-district areas purposively selected to represent demographic characteristic diversity and digital public service accessibility. The four sub-districts were Lowokwaru, Klojen, Blimbing, and Kedungkandang. Malang City selection as the research locus was based on considerations that this city has implemented various digital transformation initiatives in public services, including online licensing systems, digital population services, and public complaint applications, thus providing adequate context for exploring relationships among digital transformation, technological readiness, and public value (Afrilia et al., 2024). Data collection was conducted over four months, from August through November 2025, providing sufficient time to reach diverse respondents and ensure the collection of data.

3.3. Population and Sample

The research population consisted of Malang City residents who had used digital-based public services at least once in the previous six months. This criterion ensures respondents have direct experience with government digital systems and can provide valid assessments of measured constructs. The sample size was set at 200 respondents, determined based on methodological considerations for regression and mediation analysis. This sample size meets minimum guidelines for bootstrap mediation analysis, requiring at least 150 respondents to generate stable estimates and accurate confidence intervals (Latupeirissa et al., 2024). The sampling technique used was purposive sampling with proportional quotas for each sub-district, ensuring balanced representation from various areas with diverse demographic characteristics.

3.4. Instrument Testing

Before the main data collection, a pilot test was conducted with 10 respondents not part of the research sample to test instrument validity and reliability. The pilot test was conducted in July 2025 with respondents having similar characteristics to the target population. Validity test results using Pearson product-moment correlation showed all statement items had r -calculated values ranging from 0.612 to 0.847, all greater than r -table at 0.05 significance level for $n=10$ (0.632). This indicates all statement items are valid and capable of measuring intended constructs. Reliability testing using Cronbach's Alpha coefficient yielded values of 0.923 for the Digital Transformation scale, 0.896 for the Technological Readiness scale, and 0.915 for the Public Value scale. All three values are above the 0.70 threshold, indicating very good reliability, even exceeding 0.90 criteria, showing excellent internal consistency (Aliy, Younus, & Lawelai, 2025). Based on satisfactory pilot test results, instruments were declared suitable for data collection without substantive revision.

3.5. Data Collection Instruments

The instrument used was a structured questionnaire consisting of four main sections. The first section contains questions about respondent demographic characteristics, including gender, age, last education level, and experience using digital public services. The second section measures Digital Transformation through 12 statement items covering indicators of digital service access ease, system response speed, technology infrastructure availability, and cross-service system interoperability. The third section measures Technological Readiness through 10 statement items covering digital literacy, socio-cultural contexts in technology use, and digital divides experienced by respondents. The fourth section measures Public Value through 14 statement items covering dimensions of service transparency, citizen participation, service efficiency, and access inclusivity. All statement



items use 5-point Likert scales, from 1 (strongly disagree) to 5 (strongly agree), allowing more sensitive measurement of respondent perception gradations (Dytihana et al., 2025).

3.6. Data Collection Procedures

Data collection was conducted through direct surveys with face-to-face interview approaches using printed questionnaires. Trained enumerators were assigned to each sub-district to meet respondents at public locations such as integrated service offices, community service centers, and frequently visited public areas. Before questionnaire completion, respondents received explanations about research purposes, data confidentiality guarantees, and informed consent. Respondents willing to participate were asked to complete questionnaires accompanied by enumerators to ensure understanding of each statement item and data completeness. The data collection process yielded 100 percent response rate because completion was done directly with accompaniment, minimizing missing or incomplete data (Wiguna, 2025).

3.7. Data Analysis Techniques

Data analysis was conducted using Jamovi statistical software version 2.3.28 with the jAMM (jamovi Advanced Mediation Models) module. Jamovi was selected due to its intuitive interface and robust support for bootstrap-based causal mediation analysis. The analysis began with descriptive statistics using the Exploration menu to summarize respondent characteristics based on gender and education level. Descriptive measures, including central tendency, dispersion, and categorical interpretations of respondent perceptions, were used to describe the distribution of each research variable.

Classical assumption testing was then performed using the Regression menu to ensure the suitability of the data for linear regression analysis. Residual normality was assessed through Q-Q plots and the Shapiro-Wilk test. Multicollinearity was evaluated using Variance Inflation Factor (VIF) values, with thresholds below 10 indicating acceptable levels. Heteroscedasticity was examined using residual scatter plots to detect non-constant variance patterns.

To estimate the total effect, simple linear regression was applied to examine the influence of Digital Transformation on Public Value without including the mediator variable. This provided baseline coefficients for comparison with models incorporating mediation effects. Path analysis was subsequently conducted using two regression equations. The first regression tested the effect of Digital Transformation on Technological Readiness as the mediator, while the second examined the effect of Technological Readiness on Public Value while controlling for Digital Transformation. These models formed the basis for mediation effect estimation.

Causal mediation analysis was then performed using the jAMM module with percentile bootstrap confidence intervals based on 5,000 resamples. Three parameters were estimated: the Average Causal Mediation Effect (ACME), representing the indirect effect through Technological Readiness; the Average Direct Effect (ADE), representing the direct effect of Digital Transformation on Public Value; and the proportion mediated, calculated as the ratio of ACME to the total effect (Sisilianingsih et al., 2025).

The nonparametric bootstrap approach was employed because it does not assume normality of indirect effects and yields more reliable confidence intervals than traditional Sobel tests, particularly for medium-sized samples. Statistical significance was determined using 95% bootstrap confidence intervals that did not include zero, with all tests evaluated at a significance level of $\alpha = 0.05$. Partial mediation was established when both ACME and ADE were statistically significant, indicating that Technological Readiness partially mediates the relationship between Digital Transformation and Public Value (Haris et al., 2025).

4.0 RESULTS AND DISCUSSION

4.1. Results

a. Respondent Characteristics

This research involved 200 respondents who are digital-based public service users. Respondents were selected to represent variation in demographic backgrounds and education levels to ensure diversity of perceptions toward Digital Transformation, Technological Readiness, and Public Value. Demographically, respondent characteristics by gender show the majority of respondents were female, totaling 122 people or 61.0%, while male respondents numbered 78 people or 39.0%. These findings show female respondent participation was more dominant than male respondents in this research.



Viewed from the last education level, most respondents had Diploma/Bachelor backgrounds, totaling 114 people or 57.0% of the total respondents. Respondents with Senior High School education numbered 68 people or 34.0%, while respondents with Postgraduate education were the smallest proportion group, totaling 18 people or 9.0%. Thus, overall, there were 132 respondents or 66.0% with higher education—Diploma/Bachelor and Postgraduate.

Based on this distribution, the most dominant category or mode for the gender variable was female, while for the last education variable was Diploma/Bachelor. The ratio between male and female respondents was 78 to 122 or approximately 1:1.56. All respondent data in this research totaled 200 people or 100.0%, so respondent characteristic distribution can be said to have reflected the entire research sample.

This distribution shows most respondents had medium to high education levels, generally assumed to have relatively good exposure and experience with digital technology-based public services. This composition provides an adequate basis for analyzing perceptions of Digital Transformation and its impact on Public Value.

b. Descriptive Overview of Study Variables

This research focuses on three main constructs: Digital Transformation (X), Technological Readiness (Z), and Public Value (Y). Digital Transformation is measured through indicators of access ease, response speed, infrastructure availability, and system interoperability. Technological Readiness encompasses digital literacy, socio-cultural contexts, and digital divides. Public Value represents dimensions of transparency, participation, efficiency, and public service inclusivity.

Descriptive statistical results show all three variables are at medium to high categories, with sufficient variation to support inferential analysis. This pattern indicates respondents generally have experienced Digital Transformation implementation, though with varying levels of technological readiness.

c. Direct Effect of Digital Transformation on Public Value

Initial analysis was conducted to test the total effect of Digital Transformation on Public Value. Linear regression results show that Digital Transformation has a positive and significant influence on Public Value.

Total effect coefficient was recorded at 0.4146, with 95% confidence interval of 0.2831 to 0.5483, and a p-value < 0.001. These findings indicate that each one-unit increase in Digital Transformation will increase Public Value by 0.4146 units. High statistical significance confirms that Digital Transformation is a key factor in enhancing public perception of public service quality and benefits.

Substantively, these findings show that improvements in service access, response speed, and digital system integration directly contribute to enhancing transparency, efficiency, and public service inclusivity.

d. Effect of Digital Transformation on Technological Readiness

The next stage tested Digital Transformation's influence on Technological Readiness. Regression analysis results show that Digital Transformation positively and significantly influences Technological Readiness.

These findings indicate that the higher the Digital Transformation level perceived by respondents, the higher their readiness level in utilizing technology. Digital Transformation not only creates more sophisticated systems but also encourages digital literacy enhancement and social adaptation to technology use in public services.

e. Effect of Technological Readiness on Public Value

Further analysis shows Technological Readiness has a positive and significant influence on Public Value after controlling for Digital Transformation. Respondents with higher digital literacy levels and lower technology barriers tend to give more positive assessments of public service value.

These results confirm that Digital Transformation success heavily depends on user readiness. Without adequate technological readiness, digital system transformation benefits cannot be optimally experienced by society.

f. Mediation Analysis Results

To test Technological Readiness's role as a mediator variable, this research used causal mediation analysis with a bootstrap approach. A summary of mediation analysis results is presented in Table 1.



Table 1. Mediation Analysis Results (n = 200)

Mediation Effect	Coefficient	95% CI (Lower-Upper)	p-value
Indirect Effect (ACME)	0.1497	0.0626 -- 0.2565	<0.001
Direct Effect (ADE)	0.2650	0.1525 -- 0.3792	<0.001
Total Effect	0.4146	0.2831 -- 0.5483	<0.001
Proportion Mediated (%)	35.51	16.45 -- 56.54	<0.001

Results show the Average Causal Mediation Effect (ACME) of 0.1497 is statistically significant. Confidence intervals do not include zero value, thus confirming that meaningful indirect effects exist. These findings show that Digital Transformation increases Public Value through enhanced Technological Readiness.

g. Direct Effect after Including the Mediator

Despite significant mediation effects, the direct effect (ADE) of Digital Transformation on Public Value remains significant with a coefficient of 0.2650 and p-value < 0.001. This indicates that Technological Readiness does not fully explain the relationship between Digital Transformation and Public Value.

Thus, Technological Readiness's role is partial mediation, where Digital Transformation influences Public Value both directly and through technological readiness enhancement mechanisms.

h. Proportion of Mediated Effect

The value of the proportion of mediated effect at 35.51% shows that more than one-third of Digital Transformation's influence on Public Value is channeled through Technological Readiness. The remainder, approximately 64.49%, comes from Digital Transformation's direct influence.

This proportion indicates that although Digital Transformation has a dominant direct influence, technological readiness remains an important mechanism in enhancing value perceived by society.

Overall, this research yields four main findings. First, Digital Transformation positively and significantly influences Public Value. Second, Digital Transformation enhances society's Technological Readiness. Third, Technological Readiness significantly influences Public Value. Fourth, Technological Readiness partially mediates the relationship between Digital Transformation and Public Value.

These findings show that Digital Transformation generates dual impacts: direct impact on public service quality enhancement and indirect impact through user technological readiness enhancement.

These empirical findings confirm that public sector Digital Transformation success is determined not only by technology and systems but also by society's readiness as users. Digital public service policies need to be balanced with digital literacy enhancement programs, technology gap reduction, and inclusive socio-cultural approaches.

Thus, Digital Transformation and Technological Readiness must be viewed as two complementary elements in efforts to create sustainable Public Value.

4.2. Discussion

a. Empirical Findings Interpretation in Public Sector Digital Transformation Context

Mediation analysis conducted in this research provides a substantive empirical contribution to understanding how public sector digital transformation generates impacts on public value, both directly and through technological readiness mechanisms. Empirical findings show digital transformation is a significant driver toward public value creation with a total effect coefficient of 0.4146 and a very high significance level. Furthermore, this research successfully identifies that technological readiness mediates this relationship partially, with a mediated effect proportion reaching 35.51%, while the direct effect remains significant with a coefficient of 0.2650. This partial mediation pattern indicates digital transformation works not only through user technological readiness enhancement pathways but also has independent direct mechanisms in creating public value (Zyzak, Sienkiewicz-Małyjurek, & Jensen, 2024).

These findings align with contemporary literature developments on public digital transformation, affirming that digital technology functions not merely as an administrative tool but has become a fundamental foundation in creating widely perceived social value by society. In public service contexts, digitalization has transformed the interaction paradigm between government and



citizens, where service access becomes easier, more transparent, and responsive (Latupeirissa et al., 2024). This research strengthens the argument that investment in public sector digital transformation provides significant returns in forms of service quality enhancement and public satisfaction.

b. Digital Transformation as Public Value Determinant

Empirical results showing positive and significant digital transformation influence on public value are consistent with various prior studies exploring public service modernization impacts through digital technology. Digital transformation creates public value through several key mechanisms, including service access expansion, operational efficiency enhancement, transparency strengthening, and citizen participation empowerment in governance processes (Afrilia et al., 2024). In this research context, digital transformation indicators covering access ease, response speed, infrastructure availability, and system interoperability prove to contribute substantially to public perceptions of public service quality and benefits.

These findings support the notion that digital transformation is not merely technology adoption but comprehensive restructuring processes in how government provides services and interacts with society. Studies conducted by Mustofa, Haryati, and Ismail (2025) show that successful digital transformation can enhance public service governance quality in urban regions, with measurable impacts on efficiency, responsiveness, and accountability dimensions. In their research, local governments implementing integrated digital systems experienced significant increases in public satisfaction and service delivery effectiveness.

Furthermore, digital transformation also reduces transaction costs for society in accessing public services, eliminates convoluted bureaucratic practices, and enhances government accountability through more open, measurable systems. Recent research by Nurlinah et al (2025) confirms government digital transformation has positive impacts on citizen trust and participation in public policy processes, which are important public value elements. In Indonesia's context, various public service digitalization initiatives such as online licensing systems, digital population services, and citizen participation platforms have shown promising results in enhancing service quality and positive public perceptions of government (Dytihana et al., 2025).

c. Technological Readiness as Mediation Mechanism

One key finding in this research is technological readiness's role as significant mediator in the relationship between digital transformation and public value. Mediation effect of 0.1497 with proportion 35.51% of total effect shows technological readiness is an important mechanism linking digital transformation investment with public value outcomes perceived by society. These findings reinforce arguments in literature that technology implementation success is determined not only by digital system and infrastructure quality but also heavily depends on user capacity and readiness in adopting and utilizing that technology (Aliy, Younus, & Lawelai, 2025).

Technological readiness in this research is measured through digital literacy indicators, socio-cultural contexts, and digital divides. Adequate digital literacy enables society to navigate digital systems effectively, understand online service procedures, and utilize available features optimally. Socio-cultural contexts reflect society's acceptance and adaptation levels to technological changes, influenced by social norms, prior experiences, and environmental support. Meanwhile, digital divides relate to technology access and usage ability disparities, which can hinder digital transformation benefits evenly across all societal segments.

Research by Wiguna (2025) on digital public service readiness evaluation at village government level using e-government readiness frameworks found technological readiness levels vary greatly across regions and are heavily influenced by infrastructure factors, human resource capacity, and policy support. Those findings are consistent with this research's results showing that technological readiness functions as a bridge connecting digital system availability with public value realization. Without adequate technological readiness, society cannot utilize digital systems optimally, so digital transformation cannot be fully realized.

In developing nation contexts like Indonesia, digital divides remain significant challenges hindering the even distribution of digital transformation benefits. Studies by Achdiat (2025) identify main challenges in e-government implementation in Indonesia, including technology infrastructure limitations in remote areas, low digital literacy in certain societal segments, and capacity gaps between central and local governments. Therefore, digital transformation investment needs to be accompanied by comprehensive technological readiness enhancement programs, including digital literacy training, evenly distributed infrastructure development, and inclusive socialization campaigns.

d. Partial Mediation and Theoretical Implications

Findings that technological readiness mediates the relationship between digital transformation and public value partially, not fully, have important theoretical implications. Partial mediation indicates there is a direct pathway from digital transformation



to public value not dependent on technological readiness. This shows digital transformation has components intrinsically creating value, regardless of user readiness levels. These components may include improvements in government internal processes, service model innovations, inter-agency coordination enhancements, and resource allocation optimizations enabled by digital systems (Sisilianingsih et al., 2025).

These findings align with dynamic capabilities theoretical frameworks emphasizing organizational ability to respond and adapt to environmental changes is key competence in creating value. In public sector contexts, digital transformation changes not only how services are delivered to society but also how government organizations operate internally. Digital systems enable cross-departmental data integration, better analytics for decision-making, and process automation reducing administrative burdens (Maulana, 2025). These benefits directly contribute to public value in forms of higher efficiency, better responsiveness, and more evidence-based policy quality.

Furthermore, partial mediation also indicates that digital transformation involves dimensions broader than merely technological aspects. Digital governance literature emphasizes that successful digital transformation involves cultural changes, policy reforms, and organizational restructuring running alongside technology adoption (Haris et al., 2025). In this regard, public value can be created through changes in service culture more user-oriented, policies more responsive to societal needs, and organizational structures more flexible and adaptive. These non-technical aspects can directly contribute to public value, regardless of users' technological readiness levels.

e. Implementation Context and Challenges in Indonesia

In Indonesia's context, public sector digital transformation implementation faces various specific challenges. This research was conducted with respondent's majority having higher education, namely 66% with Diploma/Bachelor or Postgraduate backgrounds. This respondent composition reflects societal segments that relatively better access and ability in using digital technology. However, it's important to note that large segments of Indonesian society still have lower education and digital literacy levels, who may face greater barriers in utilizing digital public services.

Case studies of big data-based public service transformation in Pekanbaru City Government by Dytihana et al. (2025) show that although technology is available and systems have been implemented, the biggest challenge lies in societal adoption and behavior changes in accessing services. That research found intensive socialization programs, user accompaniment, and provision of responsive help channels are very important for enhancing adoption rates and user satisfaction. These findings confirm that technological readiness is not only an individual user responsibility but also requires systemic support from the government in forms of education, supporting infrastructure, and adequate assistance mechanisms.

Additionally, inter-regional digital divides have also become crucial issues. Urban areas tend to have better digital infrastructure and a society with higher digital literacy compared to rural or remote areas. This can result in uneven digital transformation benefit distribution, where society in more developed regions gets better service access and quality, while other regions lag. To address this, digital transformation policies need to be designed with inclusive approaches, considering local context diversity and providing special support for vulnerable regions and societal groups.

f. Practical Implications for Public Policy

These research findings have significant practical implications for public sector digital transformation policy design and implementation. First, results showing digital transformation's direct effects on public value confirm the importance of sustainable investment in digital infrastructure development, integrated systems, and service innovations. The government needs to continuously enhance digital platform quality, expand online service reach, and ensure system interoperability to maximize service efficiency and effectiveness.

Second, findings regarding technological readiness mediation roles emphasize needs for holistic approaches, not only focusing on technology development but also on user capacity development. Digital literacy enhancement programs need to be systematically designed and targeted at various societal segments, considering educational background diversity, age, and technology access. Collaboration with various stakeholders, including education sectors, local communities, and civil society organizations, can expand the digital literacy program's reach and effectiveness.

Third, digital transformation policies need to be accompanied by robust monitoring and evaluation mechanisms to ensure implementation runs according to plan and benefits can be evenly experienced by all societal segments. User feedback systems,



service usage data analysis, and periodic satisfaction studies can provide valuable information for continuous system and supporting policy improvements.

5.0 CONCLUSION

This research confirms that digital transformation is a strategic factor in shaping the future of public value in the public administration sector. Empirical findings show that digital transformation positively and significantly influences public value, both directly and through technological readiness as a mediating mechanism. This indicates that digital public service transformation not only improves efficiency and accessibility but also enhances public perceptions of transparency, participation, and the quality of public services.

Technological readiness's role proves to be an important partial mediator, confirming that digital transformation success heavily depends on user and institutional ability to adopt and utilize technology. Thus, technology investment without accompanying digital literacy enhancement and social readiness potentially produces suboptimal public benefits. These findings enrich public administration discourse by demonstrating that public value creation in the digital era is a multidimensional process involving interactions among technology, humans, and governance.

These research implications lead to a need for holistic, sustainable digital transformation approaches. The government needs to balance digital infrastructure development with human resource capacity enhancement policies and inclusive digital governance strengthening. Thus, digital transformation can function as the main catalyst in building adaptive, responsive public administration oriented toward long-term public value creation.

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