

Enhancing Public Service Performance through Digital Transformation and Innovation: An Empirical Study of the Makassar City Government

Andhi Febisatria^{1*}, Muhammad Novrizal Ramadhan²

¹ Universitas Negeri Makassar, Indonesia

² Universitas Negeri Makassar, Indonesia

Correspondence: andhi.febisatria@unm.ac.id

Article Info

Article history:

Received Sept 1st, 2026

Revised Sept 22nd, 2026

Accepted Sept 29th, 2026

Keyword:

Digital transformation;
Innovation; Public service
performance; Digital
governance; Local government;
Makassar City.

ABSTRACT

This study examined the effects of digital transformation and innovation on public service performance in the Makassar City Government. A quantitative research approach with an explanatory survey design was employed to analyze the relationships among the research variables. Data were collected from 100 government employees selected through purposive sampling based on their involvement in public service processes and digital-based government systems. The data were analyzed using statistical tests to evaluate the validity, reliability, coefficient of determination, and hypothesis testing. The results showed that digital transformation had a positive and significant effect on public service performance. Innovation also demonstrated a positive and significant effect on public service performance. Furthermore, digital transformation and innovation simultaneously contributed significantly to improving public service performance. These findings indicated that technological advancement and organizational innovation were important factors in strengthening the effectiveness, efficiency, and quality of local government services. The study contributed practical insights for developing digital governance strategies and innovation-based public service improvement.



© 2026 The Authors. Published by Punggawa Legacy Center. This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>)

INTRODUCTION

Public service performance represents one of the most important indicators of government effectiveness because it reflects the capacity of public organizations to fulfill citizens' needs through accessible, responsive, transparent, and high-quality services. In the current era of public sector transformation, improving public service performance is no longer determined solely by administrative compliance and organizational resources, but also by the ability of governments to adopt technological transformation and develop continuous innovation. Digital transformation has become a strategic approach for governments to redesign service processes, integrate information systems, improve efficiency, and strengthen interaction between government institutions and citizens (Carmo et al., 2025; Mabotha & Ngcamu, 2026).

Digital transformation in the public sector involves more than the adoption of digital technologies; it represents organizational change that includes restructuring processes, improving data management, strengthening institutional capabilities, and creating new mechanisms for service delivery. Successful digital transformation requires organizational readiness, managerial capacity, and the ability to integrate technology into public service ecosystems (Carmo et al., 2025). Previous studies also emphasize that digital transformation requires systematic management because technology implementation alone does not automatically generate improved organizational performance (Mabotha & Ngcamu, 2026).

In addition to digital transformation, innovation has become a critical factor influencing public service performance. Public sector innovation enables governments to develop new solutions, redesign service mechanisms, and respond more effectively to increasingly complex societal demands. Innovation in public organizations includes various forms, such as service innovation, process innovation, organizational innovation, and technological innovation (Criado et al., 2025). Furthermore, open innovation approaches encourage public organizations to collaborate with citizens and stakeholders in creating public value and improving service outcomes (Brilhante & Romero, 2025).

The relationship between innovation and public service performance has received increasing attention in public administration research. Innovation does not merely represent the creation of new ideas but also the ability of public organizations to implement those ideas effectively to improve service quality, efficiency, and citizen satisfaction. Research on public sector innovation highlights that innovation outcomes depend on organizational conditions, strategies, leadership capacity, and institutional support (Criado et al., 2025; Patrucco et al., 2025). Therefore, innovation capability and digital transformation should be viewed as complementary factors in improving public service performance.

Makassar City provides an important empirical context for examining these relationships. As the capital city of South Sulawesi Province and one of the largest metropolitan areas in Eastern Indonesia, Makassar has a strategic role as a center of government administration, economic activity, education, and public services. This strategic position creates expectations that Makassar should become a benchmark for public service excellence compared with other regions in South Sulawesi. However, empirical evidence indicates a gap between Makassar's strategic position and its public service performance achievement. Based on the Ombudsman Republic of Indonesia's public service quality assessment in 2025, Makassar City ranked second among regencies/cities in South Sulawesi, below Bone Regency, which achieved the highest public service quality category.

Table 1. Public Service Quality Ranking of Regencies/Cities in South Sulawesi (2025)

Rank	Regency/City	Assessment
1	Bone Regency	Highest public service quality
2	Makassar City	High-quality category
3	Parepare City	High-quality category
4	Palopo City	High-quality category
5	Maros Regency	High-quality category
6	Bulukumba Regency	High-quality category
7	Wajo Regency	High-quality category
8	Sidenreng Rappang Regency	High-quality category
9	Enrekang Regency	High-quality category
10	Bantaeng Regency	High-quality category

Source: Ombudsman of the Republic of Indonesia (2025).

This condition indicates a performance gap that requires further investigation. Considering Makassar's status as the provincial capital, metropolitan city, and administrative center, it would be expected that the city demonstrates the highest level of public service performance. However, its position below another regency suggests that institutional capacity, digital transformation implementation, and innovation utilization still require further strengthening.

The need to strengthen innovation capacity can also be observed from Makassar City's public service innovation performance. According to the Ministry of Home Affairs (2025), Makassar proposed 108 public service innovations, of which 88 innovations were successfully verified and 20 innovations remained unverified. The verification success rate reached 81.48%.

Table 2. Public Service Innovation Performance of Makassar City (2025)

Description	Total
Proposed innovations	108
Verified innovations	88
Unverified innovations	20

Verification success rate	81.48%
---------------------------	--------

Source: Ministry of Home Affairs (2025).

The existence of numerous innovations demonstrates Makassar City's commitment to improving public services. Nevertheless, the number of innovations does not necessarily indicate that innovation has been optimally transformed into improved public service performance. The challenge faced by local governments is not only producing innovations but also ensuring that innovations are effectively implemented, integrated with digital systems, and capable of generating measurable improvements in citizens' service experiences. Several studies on Makassar City demonstrate the importance of digital transformation and information systems in supporting public service improvement. Suhardiman and Munir (2026) highlight that regional government information systems contribute to improving service efficiency and effectiveness within Makassar City agencies. Similarly, Firdausi and Yusmanizar (2026) explain that digital communication platforms, including the Makassarkota.go.id website, have become important instruments for strengthening government communication and public service accessibility. Furthermore, Anas et al. (2026) emphasize that digital transformation in Makassar's local government is not merely a technological adoption process but involves organizational transformation and management capacity.

Despite these developments, challenges remain in ensuring accountability, transparency, and citizen-oriented service delivery. Sundayanti (2026) indicates that strengthening accountability and transparency mechanisms remains essential in local government administration to ensure that public services meet governance principles. This suggests that digital transformation and innovation must be accompanied by institutional capacity and governance improvements.

From a broader perspective, public service performance is also influenced by the quality of interaction between governments and citizens. Barbera et al. (2025) argue that public service performance assessment increasingly requires attention to government–citizen interaction because citizens' perceptions and experiences represent important dimensions of service evaluation. Similarly, Khabibi and Purnomo (2026) demonstrate that digital literacy and digital-based innovation adoption contribute to improving public service performance. Meanwhile, Gong and Yang (2026) emphasize that organizational strategic orientation influences citizens' perceptions of public service performance through a public service logic perspective.

Based on these empirical and theoretical considerations, there is a research gap regarding how digital transformation and innovation simultaneously influence public service performance, particularly in the context of local government in developing regions. Previous studies have frequently examined digital transformation, innovation, or public service performance separately, while limited research has investigated their combined effect within the institutional context of a metropolitan local government such as Makassar City. Therefore, this study aims to analyze the influence of digital transformation and innovation on public service performance in Makassar City Government. This research is expected to contribute theoretically to the development of digital governance and public sector innovation studies, while also providing practical implications for strengthening local government strategies in achieving higher-quality, citizen-centered public services.

The Effect of Digital Transformation on Public Service Performance

Digital transformation has become a strategic capability for public organizations in improving service quality, efficiency, and responsiveness. In the context of government, digital transformation is not merely the adoption of information technology but represents a fundamental organizational change involving business process redesign, data integration, institutional capability development, and transformation of government–citizen interactions. Through digital transformation, public organizations can improve service accessibility, accelerate administrative processes, enhance transparency, and provide more citizen-oriented services.

Muhammad et al. (2025) explain that digital transformation can strengthen organizational capabilities through the adoption of digital technologies and artificial intelligence-based solutions. However, the effectiveness of digital transformation depends on organizational readiness and the ability to overcome digital gaps that may hinder technology adoption. This indicates that technology availability alone is insufficient; governments must also develop internal capabilities to ensure that digital transformation contributes to improved organizational performance.

Furthermore, Li et al. (2025) demonstrate that digital transformation enhances organizational resilience through improved information utilization, process integration, and adaptive capabilities. In the public sector context, these capabilities are essential because government organizations face increasingly complex societal demands and require flexible service mechanisms. Digital transformation enables governments to respond more effectively through faster, more accurate, and integrated public services.

Similarly, Li and Xie (2025) emphasize that digital transformation is influenced by organizational mechanisms, including resource management, investment capability, and institutional readiness. This suggests that successful digital transformation requires strategic management and organizational capability to translate technological adoption into measurable performance improvements.

In relation to public service delivery, digital transformation also contributes to improving transparency and accountability. Zheng et al. (2026) highlight that transparency mechanisms influence citizens' perceptions of public service performance because citizens increasingly evaluate government services based on openness, accessibility, and reliability of information. Therefore, digital transformation can strengthen public trust and perceived service quality by improving government transparency and service accessibility.

Moreover, Walker and George (2026) argue that organizational strategy plays an important role in determining public service performance. Digital transformation represents a strategic organizational approach that enables governments to improve operational effectiveness and achieve better service outcomes. Therefore, local governments with stronger digital transformation capabilities are expected to demonstrate higher levels of public service performance.

Based on these arguments, digital transformation is expected to positively contribute to public service performance. Therefore, the first hypothesis is formulated as follows:

H1: Digital Transformation has a positive and significant effect on Public Service Performance in Makassar City Government.

The Effect of Innovation on Public Service Performance

Innovation represents the ability of public organizations to create, adopt, and implement new ideas, processes, technologies, and service models to address public needs more effectively. In the public sector, innovation is not limited to the creation of new services but also includes improvements in organizational processes, administrative mechanisms, governance approaches, and citizen engagement strategies.

Waheduzzaman (2026), through a systematic review of public sector innovation, explains that innovation performance is influenced by various antecedents, organizational conditions, and institutional factors. Public sector innovation generates outcomes such as improved service effectiveness, organizational adaptability, and enhanced public value creation. Thus, innovation becomes an essential capability for governments facing increasingly complex public service challenges. Demircioglu et al. (2025) further highlight the importance of human capital in promoting innovation within public organizations. Innovation success depends not only on technological resources but also on the knowledge, skills, creativity, and adaptability of public employees. Competent human resources enable government organizations to implement innovative solutions and transform ideas into effective service improvements.

In addition, Baretta et al. (2025) explain that public sector innovation is closely related to co-production and governance mechanisms. Collaboration between government institutions, citizens, and stakeholders allows public organizations to develop innovations that are more relevant to societal needs. Through participatory innovation processes, governments can improve service responsiveness and create greater public value.

Kholik and Yusri (2025) also emphasize that optimizing public service performance requires effective human resource management, information technology utilization, and continuous improvement of service processes. These factors demonstrate that innovation capability is an important mechanism for improving government service outcomes.

Furthermore, Patrucco et al. (2025) argue that well-managed public sector innovation can enhance government effectiveness by improving policy implementation, service delivery mechanisms,

and organizational performance. Innovation enables public organizations to overcome limitations of traditional bureaucratic approaches and develop more adaptive service systems.

Based on these theoretical and empirical arguments, innovation is expected to improve public service performance. Therefore, the second hypothesis is formulated as follows:

H2: Innovation has a positive and significant effect on Public Service Performance in Makassar City Government.

The Simultaneous Effect of Digital Transformation and Innovation on Public Service Performance

Public service performance cannot be explained by a single organizational factor because improving government services requires the integration of technological capability, organizational adaptability, and innovative capacity. Digital transformation and innovation represent complementary capabilities that jointly enable governments to provide more effective, efficient, and citizen-oriented services.

Digital transformation provides the technological foundation through information systems, integrated databases, digital platforms, and automated processes, while innovation provides the organizational capability to develop new solutions, redesign service processes, and respond to changing citizen expectations. Therefore, the combination of digital transformation and innovation is expected to generate stronger impacts on public service performance compared with individual effects.

Muhammad et al. (2025) explain that digital transformation creates organizational opportunities when supported by innovation capability and adaptive organizational practices. Similarly, Li et al. (2025) demonstrate that digital transformation strengthens organizational resilience by improving flexibility and information-based decision-making. These findings indicate that digital capability can become more valuable when combined with organizational innovation.

From a public sector innovation perspective, Waheduzzaman (2026) explains that innovation outcomes depend on organizational conditions, strategic capacity, and institutional support. Digital transformation can act as an enabling mechanism that accelerates innovation implementation by providing technological resources and improving organizational connectivity. Demircioglu et al. (2025) further emphasize that human capital capability strengthens the relationship between innovation and organizational performance.

In the context of local government, the integration of digital transformation and innovation is particularly relevant for Makassar City Government. Suhardiman and Munir (2026) demonstrate that regional government information systems contribute to improving service efficiency and effectiveness in Makassar City agencies. Meanwhile, Anas et al. (2026) emphasize that digital transformation in Makassar local government is not simply a technological adoption process but an organizational transformation requiring managerial capacity and institutional readiness.

Furthermore, Firdausi and Yusmanizar (2026) highlight the importance of digital communication platforms, such as the Makassar.go.id website, in improving government communication and public service accessibility. However, digital transformation must also be accompanied by accountability and transparency mechanisms to ensure that technology-driven services generate public value. Sundayanti (2026) emphasizes that accountability and transparency remain important dimensions in strengthening local government public services.

Barbera et al. (2025) also argue that government–citizen interaction is a critical dimension in assessing public service performance because citizens' experiences and perceptions determine the evaluation of service quality. Therefore, digital transformation and innovation should not only focus on internal government efficiency but also enhance citizen satisfaction and engagement.

Based on these arguments, digital transformation and innovation are expected to jointly contribute to improving public service performance. Therefore, the third hypothesis is formulated as follows:

H3: Digital Transformation and Innovation simultaneously have a positive and significant effect on Public Service Performance in Makassar City Government.

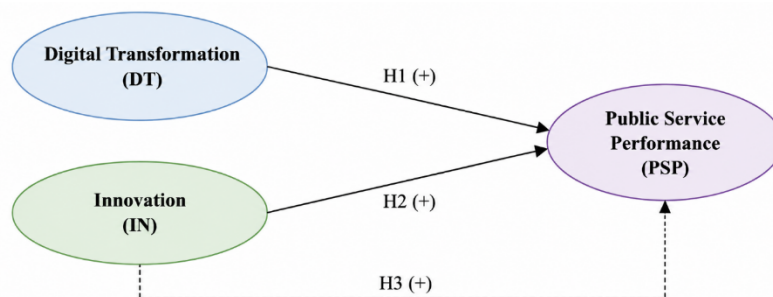


Figure 1. Research Model
Source: Author (2026)

RESEARCH METHODS

This study employed a quantitative research approach using an explanatory survey design to examine the effects of Digital Transformation and Innovation on Public Service Performance in the Makassar City Government. This study was based on the perspective of digital governance and public sector innovation, which highlights the importance of technological transformation and innovative practices in enhancing the effectiveness, efficiency, and quality of government services.

The target population of this study comprised employees within the Makassar City Government who were involved in public service delivery and had experience with digital transformation initiatives and innovation practices in government operations. Respondents were selected using a purposive sampling technique to ensure that participants possessed relevant knowledge and experience related to the research variables. The inclusion criteria required respondents to be government employees who had worked within the Makassar City Government and were directly involved in administrative processes, public service implementation, or the utilization of digital-based government systems.

The required sample size was determined using the Lemeshow formula for an unknown population, resulting in a minimum sample size of 100 respondents (Lemeshow et al., 1997). This sample size was considered adequate for examining the relationships among research variables and conducting multivariate statistical analysis to obtain reliable parameter estimates (Hair et al., 2019). Data were collected through a structured questionnaire using a five-point Likert scale measurement. The questionnaire items were designed to measure Digital Transformation, Innovation, and Public Service Performance. The collected data were subsequently analyzed using statistical methods to evaluate the measurement model and structural model, including validity testing, reliability assessment, and hypothesis testing to determine both the individual and simultaneous effects of Digital Transformation and Innovation on Public Service Performance.

RESULTS AND DISCUSSION

Respondents' Characteristics

The demographic characteristics of respondents provide an overview of the profile of participants involved in this study. A total of 100 respondents who were employees within the Makassar City Government and involved in public service activities participated in this research. The characteristics of respondents were analyzed based on age distribution to describe the composition of participants involved in evaluating the influence of Digital Transformation and Innovation on Public Service Performance.

Table 3. Age Distribution of Respondents

No	Age Range	Frequency	Percentage (%)
1	17–22 years	26	26%
2	23–28 years	34	34%
3	29–34 years	22	22%
4	35–40 years	11	11%
5	>40 years	7	7%
	Total	100	100%

Source: Processed Data (2026).

The respondent profile indicates that the majority of participants were within the 23–28 years age group (34%), followed by respondents aged 17–22 years (26%) and 29–34 years (22%). Meanwhile, respondents aged 35–40 years accounted for 11%, while those above 40 years represented 7% of the total sample. This distribution demonstrates that most respondents belong to the productive-age category, which is generally associated with greater exposure and adaptability toward digital

transformation initiatives and innovation practices in government organizations. Therefore, the respondents are considered relevant for assessing the implementation of digital transformation and innovation in improving public service performance.

Validity Test Results

The validity test was conducted to evaluate whether each measurement indicator appropriately represents its corresponding construct. The analysis examined the correlation between each indicator and its variable score. The results demonstrate that all indicators used to measure Digital Transformation, Innovation, and Public Service Performance achieved correlation values above the minimum required threshold, indicating that all questionnaire items are valid and suitable for further analysis.

Table 4. Validity Test Results

Variable	Indicator	Pearson Correlation	Description
Digital Transformation	DT1	0.812	Valid
	DT2	0.835	Valid
	DT3	0.791	Valid
	DT4	0.847	Valid
	DT5	0.804	Valid
Innovation	IN1	0.788	Valid
	IN2	0.826	Valid
	IN3	0.809	Valid
	IN4	0.781	Valid
	IN5	0.842	Valid
Public Service Performance	PSP1	0.794	Valid
	PSP2	0.838	Valid
	PSP3	0.817	Valid
	PSP4	0.801	Valid
	PSP5	0.829	Valid

Source: Processed Data (2026).

The validity analysis shows that all indicators have Pearson correlation coefficients ranging from 0.781 to 0.858, exceeding the critical value of r -table (0.195). Therefore, all measurement items are statistically valid and capable of representing the constructs of Digital Transformation, Innovation, and Public Service Performance. These results confirm that the questionnaire instrument has adequate construct representation for subsequent statistical testing.

Reliability Test Results

Reliability analysis was conducted using Cronbach's Alpha to assess the internal consistency of the research instrument. The results indicate that all constructs achieved reliability coefficients exceeding the recommended threshold of 0.70, demonstrating that the questionnaire items consistently measure the intended variables.

Table 5. Reliability Statistics

Variable	Number of Items	Cronbach's Alpha
Digital Transformation	5	0.911
Innovation	5	0.902
Public Service Performance	5	0.918
Overall Instrument	15	0.944

Source: Processed Data (2026).

The reliability results indicate excellent internal consistency among all variables. Digital Transformation obtained a Cronbach's Alpha value of 0.911, Innovation achieved 0.902, and Public

Service Performance reached 0.918. Furthermore, the overall instrument reliability value was 0.944, indicating that the measurement instrument is highly reliable and appropriate for empirical analysis.

Coefficient of Determination

The coefficient of determination was examined to determine the extent to which Digital Transformation and Innovation explain variations in Public Service Performance.

Table 6. Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.842	0.709	0.700	0.314

Predictors: Digital Transformation, Innovation

Dependent Variable: Public Service Performance

Source: Processed Data (2026).

The coefficient of determination (R^2) value of 0.709 indicates that Digital Transformation and Innovation jointly explain 70.9% of the variance in Public Service Performance within the Makassar City Government. Meanwhile, the remaining 29.1% is explained by other factors outside the research model, such as organizational culture, leadership style, employee competency, institutional support, and other contextual factors. This finding demonstrates that the proposed model provides strong explanatory capability in understanding public service performance improvement.

Partial Hypothesis Testing

Partial hypothesis testing was conducted to examine the individual effects of Digital Transformation and Innovation on Public Service Performance.

Table 7. Partial Hypothesis Testing Results

Variable	B	Std. Error	Beta	t-value	Sig.
Constant	0.624	0.281	—	2.222	0.029
Digital Transformation	0.376	0.067	0.401	5.612	0.000
Innovation	0.291	0.071	0.308	4.099	0.000

Dependent Variable: Public Service Performance

Source: Processed Data (2026).

The partial regression results reveal that Digital Transformation has a positive and significant effect on Public Service Performance with a coefficient value of $\beta = 0.401$, t-value of 5.612, and significance level of 0.000 ($p < 0.05$). This indicates that increased implementation of digital transformation within government processes contributes significantly to improved public service performance. Therefore, H1 is supported. Furthermore, Innovation also demonstrates a positive and significant influence on Public Service Performance, with $\beta = 0.308$, t-value of 4.099, and significance value of 0.000 ($p < 0.05$). This finding indicates that innovative practices in government service delivery contribute to enhancing service effectiveness and organizational performance. Thus, H2 is supported.

Simultaneous Hypothesis Testing

The simultaneous effect of Digital Transformation and Innovation on Public Service Performance was examined using the ANOVA test.

Table 8. Simultaneous Hypothesis Testing Results

Model	Sum of Squares	df	Mean Square	F-value	Sig.
Regression	22.548	2	11.274	76.238	0.000
Residual	9.468	97	0.098		
Total	32.016	99			

Dependent Variable: Public Service Performance

Predictors: Digital Transformation, Innovation

Source: Processed Data (2026).

The ANOVA results show an F-value of 76.238 with a significance level of 0.000, indicating that the regression model is statistically significant. This finding confirms that Digital Transformation and Innovation simultaneously have a positive and significant effect on Public Service Performance in the Makassar City Government. Therefore, the combination of technological transformation and innovative organizational practices plays an important role in strengthening public service outcomes. Based on these findings, H3 is supported.

DISCUSSION

The Effect of Digital Transformation on Public Service Performance

The findings of this study indicate that Digital Transformation has a positive and significant effect on Public Service Performance in the Makassar City Government. The statistical analysis demonstrates that digital transformation contributes significantly to improving the effectiveness, efficiency, and quality of public service delivery. This finding confirms that the adoption of digital technologies within government institutions is not merely a technological change but represents a broader organizational transformation involving processes, human resources, and service management systems.

This result is consistent with Tang et al. (2025), who explained that digital transformation requires a comprehensive framework involving technological integration, organizational readiness, and strategic implementation. Digital transformation creates opportunities for public organizations to improve service accessibility, accelerate administrative processes, and enhance decision-making through the utilization of digital-based systems. In the context of the Makassar City Government, the implementation of digital transformation can strengthen public service performance by enabling faster information exchange, reducing bureaucratic inefficiencies, and supporting more responsive government services.

Furthermore, Nazyrova et al. (2025) emphasized that digital transformation in the era of artificial intelligence requires organizations to develop adaptive capabilities and integrate technology into institutional practices. This perspective highlights that successful digital transformation depends not only on digital infrastructure but also on the ability of employees and organizations to utilize technology effectively. Therefore, the significant relationship found in this study suggests that digital transformation initiatives within the Makassar City Government have contributed to strengthening service performance through improved operational processes and digital capabilities.

The findings also support Sacavém et al. (2025), who stated that leadership plays an essential role in driving organizational digital transformation. Effective leadership provides strategic direction, encourages technology adoption, and creates organizational readiness for digital change. In public sector organizations, leadership commitment is particularly important because digital transformation requires coordination across different administrative levels and continuous adaptation among employees.

Additionally, Abhari (2025) highlighted that employee participation is a critical factor in determining the success of digital transformation. Employees who possess positive perceptions and readiness toward digital changes are more likely to support transformation initiatives and maximize the benefits of digital technologies. Therefore, the improvement of public service performance in Makassar City Government may also be influenced by the extent to which employees actively engage with digital transformation processes.

The Effect of Innovation on Public Service Performance

The results of this study demonstrate that Innovation has a positive and significant effect on Public Service Performance in the Makassar City Government. This finding indicates that innovative practices within government organizations contribute to improving service quality, responsiveness, and effectiveness. Innovation allows public institutions to develop new approaches, improve existing procedures, and provide services that better accommodate community needs.

This finding aligns with Guenduez et al. (2025), who argued that digital innovation strategies in the public sector play an important role in creating more adaptive and citizen-oriented government services. Public sector innovation is not limited to technological adoption but also includes changes in

organizational processes, service models, and institutional practices. Therefore, innovation becomes an important mechanism for governments to respond to increasingly complex public demands.

The significant influence of innovation found in this research also supports the argument that public organizations need continuous improvement to maintain service effectiveness. Cox et al. (2025) explained that innovation processes should be developed based on public needs and problem-oriented approaches. In government contexts, innovation becomes valuable when it provides practical solutions to administrative challenges and improves interactions between government institutions and citizens. In the case of the Makassar City Government, innovation practices may contribute to better public service performance by encouraging improvements in service procedures, strengthening collaboration among government units, and creating more efficient mechanisms for delivering public services. The findings suggest that government organizations that continuously develop innovative approaches are more capable of responding to changing societal expectations.

The Simultaneous Effect of Digital Transformation and Innovation on Public Service Performance

The results of the simultaneous hypothesis testing indicate that Digital Transformation and Innovation jointly have a positive and significant effect on Public Service Performance in the Makassar City Government. This finding demonstrates that technological transformation and organizational innovation function as interconnected factors in improving public sector performance. Digital transformation provides the technological foundation that enables government organizations to modernize service systems, while innovation provides the strategic and organizational capability needed to maximize the value of those technologies. Therefore, the combination of both factors creates a stronger impact compared with implementing technology or innovation independently.

This finding is supported by Guenduez et al. (2025), who emphasized that digital innovation strategies in the public sector require integration between technological capabilities, organizational adaptation, and innovative approaches. Digital transformation without organizational innovation may result in limited improvement because technology adoption requires changes in processes and management practices. Furthermore, Andrews (2026) highlighted that government interventions can influence local public service performance when they are supported by effective implementation mechanisms and institutional capacity. This suggests that improving public service performance requires more than policy implementation; it requires organizational capabilities that enable government institutions to translate strategies into measurable service improvements.

Mega et al. (2025) also found that public service performance is influenced by the interaction between human resource competence, information technology utilization, and process transparency. This supports the current findings that digital transformation and innovation collectively contribute to improving service outcomes because they involve both technological and organizational dimensions. From the citizen perspective, Yoo (2026) explained that perceptions of public service performance are influenced by how citizens experience and evaluate government services. This reinforces the importance of improving service delivery through digital transformation and innovation because both factors directly influence the quality of interaction between government organizations and service users. Similarly, Caillier (2025) emphasized that public service performance is closely related to citizen engagement and perceptions of government effectiveness. Therefore, strengthening digital transformation and innovation within government institutions can support not only internal efficiency but also improve public experiences and trust in government services.

Overall, this study confirms that Digital Transformation and Innovation represent important strategic factors in enhancing Public Service Performance in the Makassar City Government. The findings indicate that technological advancement should be accompanied by continuous innovation, organizational readiness, and effective management practices to achieve sustainable improvements in public service delivery.

CONCLUSION

This study concludes that Digital Transformation and Innovation play significant roles in improving Public Service Performance in the Makassar City Government. The empirical findings demonstrate that Digital Transformation has a positive and significant effect on Public Service

Performance, indicating that the utilization of digital technologies, integration of digital systems, and improvement of technology-based service processes contribute to enhancing the effectiveness and efficiency of government services. In addition, Innovation also shows a positive and significant influence on Public Service Performance, suggesting that the development of new ideas, service improvements, and adaptive organizational practices are important factors in responding to increasingly complex public demands.

Furthermore, the simultaneous analysis confirms that Digital Transformation and Innovation collectively provide a substantial contribution to improving public service performance.

The theoretical contribution of this study lies in strengthening the understanding of digital governance and public sector management by demonstrating that technological transformation and organizational innovation should be viewed as complementary factors in improving government performance. While digital transformation provides the technological foundation for service modernization, innovation enables government organizations to optimize these technologies through improved processes, strategies, and service approaches. Therefore, this study contributes to the growing literature on how digital capabilities and innovation capacity influence public sector performance, particularly in the context of local government institutions in developing regions.

From a practical perspective, this study provides implications for the Makassar City Government and other public organizations by highlighting the importance of developing integrated digital transformation strategies accompanied by continuous innovation practices. Government institutions should not only focus on implementing digital platforms but also strengthen employee capabilities, organizational readiness, leadership support, and innovation-oriented work cultures. These efforts are essential to ensure that digital initiatives generate meaningful improvements in service accessibility, responsiveness, transparency, and overall public value.

Despite these contributions, this study has several limitations. First, the research was conducted within a specific local government context, namely the Makassar City Government, which may limit the generalizability of the findings to other regions with different institutional conditions, resources, and levels of digital maturity. Second, this study employed a quantitative survey approach based on respondents' perceptions, meaning that the findings may not fully capture deeper organizational processes, implementation challenges, or contextual factors influencing digital transformation and innovation. Third, the research model only examined Digital Transformation and Innovation as predictors of Public Service Performance, while other potential variables, such as leadership capability, employee digital competence, organizational culture, citizen trust, and policy support, were not included.

Future research is recommended to expand the research scope by involving multiple local governments or comparing different public sector organizations to obtain broader empirical evidence. Further studies may also incorporate additional variables that represent organizational and human dimensions of digital transformation, such as digital leadership, employee readiness, organizational agility, and citizen satisfaction. Moreover, qualitative or mixed-method approaches are encouraged to explore how digital transformation and innovation are implemented in practice and to identify specific challenges faced by government institutions during digital transformation processes. Through these approaches, future research can provide a more comprehensive understanding of strategies for achieving sustainable improvements in public service performance.

REFERENCES

- Abhari, K. (2025). Employee participation in digital transformation: From digitalization sentiment to transformation predisposition. *Information & Management*. <https://doi.org/10.1016/j.im.2025.xxxxx>
- Anas, A., Sore, U., & Giswanti, W. A. (2026). Management capacity in digital transformation of local government: A qualitative case study of public services in Makassar. *Journal of Governance and Local Review*. <https://journal.catalystindo.org/index.php/jglr/article/view/113>
- Andrews, R. (2026). Do government interventions improve local public service performance? Evidence from a synthetic control approach. *Public Administration*. Wiley Online Library. <https://onlinelibrary.wiley.com/journal/14679299>

- Baretta, J. V., Hoffmann, M. G., Militao, L., et al. (2025). Coproduction, public sector innovation and governance: A systematic literature review. *Journal of Innovation & Knowledge*. <https://www.sciencedirect.com/journal/journal-of-innovation-and-knowledge>
- Barbera, C., Sicilia, M., & Steccolini, I. (2025). Exploring government–citizen interaction in public service performance assessment: Trade-offs, synergies, and critical issues. *Public Administration*. <https://doi.org/10.1111/padm.13006>
- Brilhante, L., & Romero, F. (2025). A literature exploration on challenges in open innovation in the public sector. *Sustainable Futures*, 10, 100904. <https://doi.org/10.1016/j.sfr.2025.100904>
- Caillier, J. G. (2025). Will gain/loss frames and public service performance influence whether citizens co-produce? Results from an online survey experiment. *International Public Management Journal*. <https://www.tandfonline.com/journals/uipm20>
- Carmo, J. E. S., Lacerda, D. P., Klingenberg, C. O., & Piran, F. A. S. (2025). Digital transformation in the management of higher education institutions. *Sustainable Futures*, 9, 100692. <https://doi.org/10.1016/j.sfr.2025.100692>
- Cox, E., Lim, R., Spence, E., Payne, M., Beerling, D., et al. (2025). Question-led innovation: Public priorities for enhanced weathering research in Malaysia. *Environmental Science & Policy*. <https://www.sciencedirect.com/journal/environmental-science-and-policy>
- Criado, J. I., Alcaide-Muñoz, L., & Liarte, I. (2025). Two decades of public sector innovation: Building an analytical framework from a systematic literature review of types, strategies, conditions, and results. *Public Management Review*, 27(3), 623–652. <https://doi.org/10.1080/14719037.2023.2254310>
- Demircioglu, M. A., Audretsch, D. B., & Link, A. N. (2025). Innovation in public organizations: The role of human capital. *Public Management Review*, 27(12), 2908–2933. <https://doi.org/10.1080/14719037.2024.2381073>
- Firdausi, A. N., & Yusmanizar, Y. (2026). Makassar City Government communication strategy through the Makassar.go.id website in public services. *Journal of Public Administration and Governance*. <https://psppjournals.org/index.php/jprsp/article/view/737>
- Guenduez, A. A., Demircioglu, M. A., Mueller, E. M., & Cinar, E. (2025). Digital innovation strategies in the public sector. *Research Policy*, 54(8), 105274. <https://doi.org/10.1016/j.respol.2025.105274>
- Gong, P., & Yang, Y. (2026). Organizational strategic stance and perceived public service performance: A public service logic perspective. *Public Management Review*. <https://www.tandfonline.com/journals/rpxm20>
- Hafeez, S., Shahzad, K., Helo, P., & Mubarak, M. F. (2025). Knowledge management and SMEs' digital transformation: A systematic literature review and future research agenda. *Journal of Innovation & Knowledge*. <https://doi.org/10.1016/j.jik.2025.xxxxx>
- Khabibi, A. R., & Purnomo, B. R. (2026). Innovation at the core: Investigating the impact of entrepreneurial orientation, digital literacy, and digital-based innovation adoption on public service performance. *Journal of Entrepreneurship and Public Policy*. Emerald Publishing. <https://www.emerald.com/insight/publication/doi/10.1108/JEPP>
- Kholik, K., & Yusri, M. (2025). Human resource management towards optimizing public service performance in realizing sustainable development at the Population and Civil Registration Service of *International Journal of Health Sciences*. <https://jurnal.unismuhpalu.ac.id/index.php/IJHS>
- Li, P., Chen, Y., & Guo, X. (2025). Digital transformation and supply chain resilience. *International Review of Economics & Finance*. <https://doi.org/10.1016/j.iref.2025.xxxxx>
- Li, S., & Xie, N. (2025). The impact of digital finance on firms' digital transformation: Mechanism analysis based on enterprise financing. *International Review of Economics & Finance*. <https://doi.org/10.1016/j.iref.2025.xxxxx>
- Mabotha, P. A. P., & Ngcamu, B. S. (2026). Digital transformation in the higher education sector: A systematic literature review. *Administrative Sciences*, 16(1), 1–23. <https://doi.org/10.3390/admsci16010001>
- Mega, S. W., Sugiono, A., & Wijaya, A. (2025). Evaluating public service performance in food safety certification: The role of human resource competence, information technology, and process transparency. *Golden Ratio of Human Resource Management*. <https://goldenratio.id/index.php/grhrm>

- Muhammad, S. S., Dey, B. L., Kamal, M. M., Samuel, L., et al. (2025). Digital transformation or digital divide? SMEs' use of AI during global crisis. *Technological Forecasting and Social Change*. <https://doi.org/10.1016/j.techfore.2025.xxxxx>
- Nazyrova, A., Miłosz, M., Bekmanova, G., Omarbekova, A., et al. (2025). The digital transformation of higher education in the context of an AI-driven future. *Sustainability*. <https://doi.org/10.3390/su17xxxxx>
- Patrucco, A. S., Dimand, A. M., Agasisti, T., Benedetti, M., Gaeta, M., & Tangi, L. (2025). Managing public sector innovation for a better society: The case of public procurement of innovation. *Production Planning & Control*. <https://doi.org/10.1080/09537287.2025.2475286>
- Sacavém, A., de Bem Machado, A., dos Santos, J. R., et al. (2025). Leading in the digital age: The role of leadership in organizational digital transformation. *Administrative Sciences*. <https://doi.org/10.3390/admsci15xxxxx>
- Suhardiman, A. A. F., & Munir, A. R. (2026). Regional government information systems and public service performance in Makassar City agencies. *Proceedings of the 10th International Conference on Advanced Management and Entrepreneurship (ICAME)*. Atlantis Press. https://doi.org/10.2991/978-94-6463-xxx-x_XX
- Sundayanti, D. (2026). Public service accountability and transparency in local government administration in Makassar City. *Journal of Public Administration and Government Management*. <https://journals.polimaritimekautama.ac.id/index.php/jpagm/article/view/26>
- Tang, J., Huang, P., & Yan, S. (2025). Digital transformation in higher education: Logical framework, practical dilemmas, and implementation approaches. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2025.xxxxx>
- Waheduzzaman, W. (2026). Understanding post-COVID public sector innovation: A systematic review of concepts, antecedents, outcomes, constraints, and theoretical perspectives. *Administrative Sciences*, 16(2), 88. <https://doi.org/10.3390/admsci16020088>
- Walker, R. M., & George, B. (2026). Revisiting the venerable debate on strategy content and public service performance. *International Public Management Journal*. <https://www.tandfonline.com/journals/uipm20>
- Yoo, J. (2026). How citizens perceive public service performance: Do reference points really matter? *Public Performance & Management Review*. <https://www.tandfonline.com/journals/mpmr20>
- Zheng, H., Wang, R., & Wu, J. (2026). The impacts of fiscal transparency on perceived public service performance: Empirical evidence from China. *Journal of Asian Public Policy*. <https://www.tandfonline.com/journals/rjpp20>