

Original Article

Digital Governance in Philippine Public Administration: A Study on Digital Maturity and Governance Outcomes in the City of Koronadal

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Abstract. This study assesses the relationship between digital transformation and local public administration by evaluating citizen perceptions and governance outcomes of the Koronadal City Portal. Although e-governance can improve transparency and efficiency, Local Government Units (LGUs) in the Philippines face significant infrastructure and implementation challenges. This study fills a critical gap in the literature by investigating the self-reported evaluations of 405 clients who used the portal for business permit applications and renewals. In this study, a quantitative descriptive-correlational design was used, with a modified survey instrument based on the OECD Digital Government Index (DGI) and good governance theory. A composite assessment of digitalization was carried out across four dimensions: digital by design, data-driven public sector, government as a platform, and user-driven, while governance outcomes were assessed with an emphasis on satisfaction, efficiency, and civic participation. Through statistical analysis using the mean, standard deviation, and Pearson's Correlation Coefficient, it was found that the level of digitalization is "Very High" ($M = 3.30$), with the Data-Driven Public Sector dimension being the highest ($M = 3.36$) among all others. Similarly, governance outcome was rated as "Highly Evident" ($M = 3.26$). Ultimately, the analysis revealed a strong and positive correlation ($r = 0.739$, $p = < .001$) between digitalization and governance outcomes. Despite these promising results, the "User-Driven" dimension has been rated the lowest ($M = 3.25$), indicating a need for strong "closed-loop" feedback. The study found that digitalization is strongly associated with the City of Koronadal's effective local governance. Recommendations include prioritizing inclusive service design, expanding the digital platform into a "one-stop-shop" model to streamline processes and improve overall transaction efficiency, and moving from passive feedback to active civic engagement so that technology investment results in a real, citizen-centric government.

Keywords: E-governance; Koronadal City Portal; Digitalization; Governance outcomes; City of Koronadal.

Digital public governance has fundamentally modified how citizens interact with local authorities. As a result, cities across the globe are encouraged to develop electronic platforms to improve service delivery and stimulate meaningful citizen engagement. Globally, the shift from traditional e-governance to

integrated digital government reflects a strategic move towards designing user-centric, interoperable systems grounded in transparency and accountability. According to the OECD (2025), international evidence suggests that countries with coherent digital policies have citizens with greater trust and satisfaction. It also suggests that the levels of citizen satisfaction and trust are higher in countries with coherent digital policies. AbdulKareem and Oladimeji (2024), in particular, emphasize that confidence and literacy, which are achieved through digital citizenship, will lead to the uptake of these services. Studies in Europe and Asia further indicate that placing end-users at the center of digital environments drastically reduces bureaucracy and makes services more accessible. In cases such as Estonia, Singapore, and South Korea, significant investments in ICT infrastructure and informatics knowledge have consistently helped overcome their respective digital divides (Ishak et al., 2024; Dhaoui, 2021; Lin & Yaakop, 2024).

In the Philippines, the development of digital government is institutionally anchored by the E-Governance Act of 2025 (R.A. 12254), which requires the use of digital platforms to promote a public sector that is transparent, efficient, and citizen-centric. The eGovPH Superapp is a national initiative designed to standardize the digital transformation. This is at the level of the local government unit (LGU). However, its implementation is still lacking at the LGU level. Some cities in the Philippines are said to have adopted e-governance tools, such as online permit and taxation services, according to studies. Barrios and Moreno (2024) found that public e-services in Zamboanga City lowered processing times by 40% and improved administrative transparency. Despite assistance from banks and firms, LGUs are still facing barriers such as insufficient technological infrastructure, resistance to organizational change, and a lack of digital literacy among personnel and citizens. Jagdon et al. (2024) found that while e-Services in Quezon City have been beneficial for accessing information, challenges remain regarding awareness and technical support.

Despite extensive efforts, a significant gap remains in the literature on the “direct perceptions” and conceptual frameworks of portal users. Most existing research focuses on national agency performance and technical infrastructure, rather than on how digitalization translates into governance outcomes of component cities. In South Cotabato, while LGUs have been using social media like Facebook for public affairs, there is little research on how integrated platforms like the Koronadal City Portal can improve citizen satisfaction and civic participation. It is important to view the missing link between digital maturity and governance success through the lens of the clients who use these systems.

The purpose of this study was to investigate clients' perceptions of digitalization through the Koronadal City Portal and their relationship to governance outcomes in the City of Koronadal, South Cotabato. Using the Digital Government Index (DGI) framework, this study investigated the various dimensions of being digital by design, data-driven, government as a platform, and user-driven. The importance of this research lies in the implementation of data-driven findings that local officials can use to refine the e-governance strategy to conceptualize public services with equity. The research contributes to the United Nations Sustainable Development Goals (SDGs) 16 and 9 by promoting transparent, accountable, and innovative forms of local governance.

Methodology

Research Design

The study employed a descriptive-correlational research design and a quantitative approach. Quantitative research refers to the systematic, observable, and quantifiable analysis of phenomena using statistical procedures. Due to the nature of the design, it also allowed for numerical data collection and analysis (clients' views on digitalization and governance outcomes) to ascertain relationships. The study's descriptive design was used to report respondents' views on e-governance services. Similarly, the correlational design was adopted to assess the strength and direction of the relationship between the study variables without manipulation.

Respondents and Sampling Technique

The study involved 405 clients of the City of Koronadal who had accessed the digital platform. Using a purposive sampling technique, the respondents chosen for the study were business owners or authorized individuals who submitted claims on the Koronadal City Portal for the renewal or application of new business permits. This means that the perceptions were collected from people who had actually used the service. The study was limited to a single-component city in South Cotabato, and respondents had to meet predetermined criteria to participate.

Research Instrument

A modified survey questionnaire was used as the primary data-collection tool, adapted from the OECD DGI framework and good governance theory. While the OECD DGI is traditionally a macro-governance framework used to evaluate public sector digital maturity at a broad institutional level, its four dimensions (digital by design, data-driven public sector, government as a platform, and user-driven) are highly appropriate at the local portal-user level because they capture the direct operational outcomes of institutional design as felt by the end-user. The instrument assessed the digitalization dimensions (12 total items) and governance outcomes across three pillars (9 total items). To ensure robust construct validity, public administration experts reviewed the item-construct fit, and a post-pilot item analysis was conducted following a pre-test with 34 participants. Reliability testing yielded Cronbach's alpha coefficients of 0.74 for Digitalization and 0.73 for Governance Outcomes, with an overall scale reliability of 0.78. This shows that the instrument is reliable for its intended constructs.

Data Gathering Procedure

The process of collecting data has several formal phases. Following the recommendation of the research defense panel and the approval of the Institutional Ethics Review Committee (IERC) of Mindanao State University-General Santos City (MSU-GenSan), the researcher sought permission from the school and the local government. After receiving formal LGU permission, the researcher administered the survey questionnaire. Before data collection began, informed consent was obtained from the participants. This explained the purpose of the study, that participation would be voluntary, and the time taken to complete the survey was around 2 to 3 minutes. The forms were reviewed and retrieved immediately to collate the data.

Data Analysis Procedure

The data collected were coded and analyzed using both descriptive and inferential statistics. The Likert-scale questions on the level of digitalization and the extent of governance outcomes were analyzed using mean and standard deviation. To examine the correlation between the variables, the strength and direction of the association were calculated using the Pearson Correlation Coefficient (r).

Ethical Considerations

The study protocol was strictly followed in ethical terms. Prior to the data collection, ethical clearance was secured from the MSU-GenSan IERC. The researcher ensured that the respondents' rights, privacy, and confidentiality were respected at all times. All participants gave informed consent, indicating that their participation was voluntary and that they could withdraw at any stage. All data gathered were used solely for research purposes and treated confidentially in accordance with ethical standards.

Results and Discussion

Level of Digitalization

The findings on the digitalization of the Koronadal City Portal are in Table 1. The study employed the OECD Digital Government Index framework to assess the city's digital maturity along four dimensions: Digital by Design, Data-Driven Public Sector, Government as a Platform, and User-Driven. These results stem from interactions with the city's digital platforms and provide a quantitative baseline for assessing local e-governance.

Table 1. *Level of Digitalization Through the Koronadal City Portal*

Indicators	Composite Mean	SD	Interpretation
Digital by Design	3.29	0.638	Very High
Data-Driven Public Sector	3.36	0.578	Very High
Government as a Platform	3.31	0.637	Very High
User Driven	3.25	0.636	Very High
Overall Mean	3.30	0.613	Very High

Note. 1.00-1.74 Low, 1.75-2.49 Moderate, 2.50-3.24 High, 3.25-4.00 Very High

The assessment of digitalization within the Koronadal City Portal yielded an overall mean of 3.30 (SD = 0.613), corresponding to a qualitative interpretation of "Very High". The result shows that the city's digital government services are not only advanced in implementation but also highly stable and consistent. Among the four indicators, the Data-Driven Public Sector dimension has the highest mean (M = 3.36, SD = 0.578), implying that the city's main technical strength is the ability to safely manage and use data to enhance public service delivery. The next highest mean was for Government as a Platform (M = 3.31, SD = 0.637), followed by Digital by Design (M = 3.29,

SD = 0.638). This means that the portal works as an integrated digital infrastructure for the various city offices, with technology being intricately woven into local policies and service delivery by design.

The User-Driven indicator had the lowest relative score ($M = 3.25$, $SD = 0.636$). However, this score is still in the Very High category. Thus, there is only a slight gap between what the portal can actually do and how much influence users have over the system. These findings align with the OECD international benchmark (2025), which affirms that effective digital governance must rely on integrated systems, accessibility, and strong data governance. Moreover, the results substantiate the claim of Gil-Garcia and Flores-Zúñiga (2020) that successful digital transformation depends on government-led implementation and citizen-led ownership. The City of Koronadal's 2025 legislative reforms, such as the Smart Governance Code and the Legislative Management System Code, further strengthen this level of local digital maturity (Gaji-Neyra, 2025). As such, the data suggests that while the city has developed an effective data-driven foundation, it will require ongoing engagement strategies to ensure that the portal continues to serve dynamic citizen needs.

Extent of Governance Outcomes

The study examined the perceived governance outcomes in the City of Koronadal, focusing on the effectiveness of institutional performance from the perspective of its people. These indicators are the primary outcomes used to assess whether the city's operational strategies and digital initiatives have achieved a tangible transformation in public value across three core pillars: Service Delivery Efficiency, Citizen Satisfaction, and Civic Participation.

Table 2. *Extent of Governance Outcomes in the City of Koronadal*

Indicators	Composite Mean	SD	Interpretation
Citizen Satisfaction	3.27	0.636	Highly Evident
Service Delivery Efficiency	3.28	0.613	Highly Evident
Civic Participation	3.24	0.613	Evident
Overall Mean	3.26	0.614	Highly Evident

Note. 1.00-1.74 Slightly Evident, 1.75-2.49 Moderately Evident, 2.50-3.24 Evident, 3.25-4.00 Highly Evident

The result yielded an overall mean of 3.26 ($SD = 0.614$), described as "Highly Evident". This high mean and low standard deviation indicate strong agreement among respondents that the city sufficiently embodies the principles of good governance. Among the indicators, service delivery efficiency had the highest mean ($M = 3.28$, $SD = 0.613$), which shows that the major strength of the city is public services delivery being accurate, organized, and done promptly. The study conducted by Barros et al. (2026) corroborated these results, highlighting that streamlined processes, quick responsiveness, and clear service procedures greatly determine perceived services quality. On the other hand, the high efficiency rating in Koronadal signals that the problems were effectively addressed, according to Indama and Salain (2023), who said that bureaucratic delays and complicated processes usually undermine institutional efficiency and stakeholder satisfaction.

Moreover, citizen satisfaction has a mean of 3.27 ($SD = 0.636$). This means that the general performance of local officials and the fulfillment of community requirements have largely met the expectations of the citizenry. Although still considered by the respondents as "Highly Evident," the lowest relative rating was the indicator "Civic Participation" ($M = 3.24$, $SD = 0.613$). This indicates that the portal seems effective mainly as a service-delivery tool, while its role in promoting deeper citizen engagement remains more limited. Sadat (2025) further contextualizes this link by arguing that digital readiness and e-government service quality positively influence public participation in political decision-making. Based on the overall results, the City of Koronadal successfully gained the people's trust through reliability and a positive image. To further improve these governance outcomes, embedding feedback loops deeper into the city's operating model can be valuable, ensuring that clients perceive their contribution to be as seamless and impactful as the service they receive.

Correlation between Digitalization and Governance Outcomes

The study examined the relationship between the digitalization variable and governance outcomes as perceived among clients in the City of Koronadal. This was analyzed using the Pearson Correlation Coefficient.

Table 3. *Correlation Between Digitalization and Governance Outcomes*

Variables	Overall Mean	SD	r-value	p-value
Digitalization	3.30	0.613	0.739	< .001**
Governance Outcomes	3.26	0.614		

**significant at 5%

The statistical analysis shows strong evidence for a positive relationship between the digitalization of the Koronadal City Portal and governance outcomes ($r = 0.739$, $p < .001$). The strength of this relationship led to the rejection of the null hypothesis, indicating that as a portal's digital maturity increases, public perception and system efficiency also increase measurably and significantly. The findings revealed that digitalization is strongly linked to the quality of governance in the City of Koronadal, where higher levels of digital adoption tend to increase client satisfaction and the overall effectiveness of municipal operations.

Beyond local data, Yukhno (2024) and Welby and Tan (2022) emphasized that successful governance requires an integrated platform for inter-agency collaboration and data sharing. Even though user orientation is one of the most important success factors, the core platform's underlying data-rich functionality and reliability rank higher (Zorali, 2024). As Bithay et al. (2025) point out, similar digital transformations in Local Government Units (LGUs) are often associated with transparency and service efficiency. According to Moreno and Zabala (2023), those with more advanced levels of digital adoption can expect improvements in public service. Hence, these transformations improve access (Villaseñor, 2024) and create the type of openness clients value most.

Conclusion

This study presents critical empirical evidence on the transformative value of integrated digital platforms at the local government level. It further helps fill a gap in the literature on the perceptions of portal users involved in business permit transactions in the City of Koronadal, South Cotabato, Philippines. However, because the study focuses strictly on a single geographic location and on specific portal use, the findings may not generalize to other regions or digital services. Furthermore, certain structural limitations arise when using a macro-governance framework such as the OECD DGI in a micro-level service context, as it focuses heavily on user-perceived operational outcomes and may underrepresent complex back-end infrastructural deficits or internal administrative workflows. Findings revealed a strong positive relationship between digitalization and governance outcomes, which implies that higher perceived digitalization is strongly associated with more favorable perceived governance outcomes among surveyed portal users. The findings contribute to the global understanding of how local digital initiatives could promote accountable and innovative institutional performance, in line with the United Nations Sustainable Development Goals (SDGs) 16 and 9. Furthermore, this study has implications for policy and practice as it suggests that for digitalization to be citizen-centric, LGUs must not merely manage data but engage in closed-loop feedback. Regarding policy, the findings suggest that the E-Governance Act of 2025 should be continued at the local level. The LGU should establish a unified digital citizen portal by integrating offline services and expanding the "one-stop-shop" model to streamline processes and overall transaction efficiency. It highlights that technical infrastructure must be complemented with digital literacy programs for less tech-savvy users to ultimately bridge the 'digital divide'. In practice, local officials must focus on inclusive design to enhance the User-Driven indicator, which, while highly rated, has the lowest relative indicator. Research into the digitalization of local public administration presents a promising avenue of investigation. Future researchers may include longitudinal studies that monitor the long-term impacts of digitalization on civic engagement or the perceptions of government personnel facing resistance to organizational change. Future work may also explore enhancements to the interoperability of national standard tools, such as the eGovPH Superapp, with local portals.

Contributions of Authors

Author 1: conceptualization, proposal writing, data gathering, data analysis

Author 2: conceptualization, proposal writing, data analysis

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Conflict of Interests

The authors affirm no conflicts of interest regarding the publication of this paper.

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