

TRUST, PRIVACY, AND DIGITAL GOVERNANCE IN EASTERN SAMAR

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ABSTRACT

The province of Eastern Samar in the Philippines faces complex challenges in advancing digital governance initiatives, rooted in its geographical isolation, economic underdevelopment, and frequent exposure to natural disasters. This study explores the critical issues of data governance and privacy within Eastern Samar's digital public service delivery, emphasizing the importance of trust-building and accountability. A mixed-methods research design was employed, involving a survey of 300 residents engaged with digital public services and semi-structured interviews with 20 key informants, including local officials, civil society actors, and ICT professionals. The research examined existing data governance and privacy policies in the Philippines and assessed their local-level application against international best practices. Results indicate a substantial gap between national policy frameworks and local implementation. Despite the Data Privacy Act's prominence, awareness and adherence in Eastern Samar remain limited. Key challenges include low digital literacy, poor connectivity infrastructure, and growing concerns over data misuse. Nonetheless, the study identifies opportunities to leverage digital technologies to promote transparency, participation, and responsive governance. These findings offer critical insights for policymakers and practitioners working on digital transformation in underdeveloped regions, highlighting the need for locally grounded strategies that prioritize capacity building, community engagement, and ethical data management.

Key words: Data governance; Digital public service delivery; E-government; Privacy; Eastern Samar; Trust

INTRODUCTION

The digital revolution has transformed public administration worldwide, encouraging governments to adopt digital governance systems to improve service delivery, transparency, and citizen participation (Bannister & Connolly, 2014; Gil-Garcia et al., 2014). Through the use of information and communication technologies (ICT), digital governance offers opportunities to streamline bureaucratic processes and expand public access to government services. However, the increasing use of digital platforms also raises major ethical and practical concerns related to data governance, privacy protection, and the responsible management of citizen information. These challenges are particularly significant in developing countries where technological infrastructure, digital literacy, and institutional capacity remain limited (Heeks, 2010; Mavriki & Karyda, 2019). Weak infrastructure, socio-political instability, and limited resources often hinder the effective implementation of digital governance policies and increase vulnerability to data misuse and privacy violations (Morris et al., 2018).

In the Philippines, digital governance development is supported by national initiatives such as the Data Privacy Act of 2012 and the e-Government Master Plan 2022, which aim to strengthen data protection and improve public digital services. Nevertheless, implementing these policies at the local government level remains challenging, especially in remote and economically disadvantaged provinces such as Eastern Samar. Located in Eastern Visayas, Eastern Samar is characterized by rural conditions, limited digital infrastructure, high poverty levels, and frequent typhoon disruptions, all of which affect both institutional capacity and citizens' digital access. These conditions create difficulties for local government units (LGUs) in implementing effective data governance practices while ensuring digital inclusion and privacy protection.

This study focuses on Eastern Samar as an underrepresented context in digital governance research. Unlike previous studies that mainly examine urban or technologically advanced areas, this research explores how global digital governance frameworks interact with local socio-technical realities in rural and disaster-prone regions. The study is grounded in three theoretical perspectives: Digital Trust Theory (Carter & Bélanger, 2005), which explains how trust in institutional competence and data security affects citizen engagement; the Institutional Capacity Model (Heeks, 2010), which highlights the importance of resources, leadership, and organizational readiness in digital transformation; and Data Ethics principles (Eke & Stahl, 2024), which emphasize fairness, accountability, consent, and inclusion in data management practices. These frameworks suggest that infrastructural limitations and human resource constraints influence institutional capacity, which subsequently affects ethical data practices, public trust, and digital service adoption.

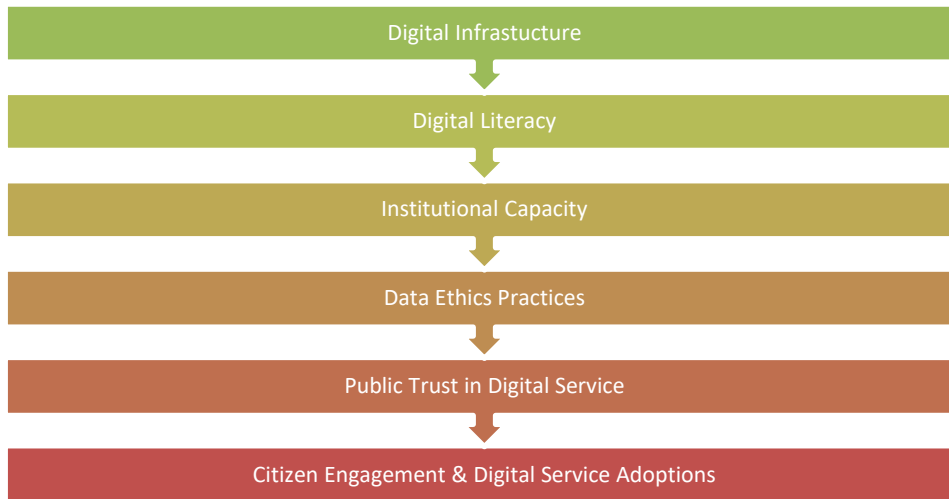


Figure 1. Digital Governance in Eastern Samar

By applying a mixed-methods approach, this study examines the relationship between institutional capacity, data ethics, and public trust in digital governance implementation in Eastern Samar. The findings are expected to contribute theoretically by extending digital governance research into marginalized rural contexts and practically by offering insights for developing inclusive, ethical, and resilient digital transformation strategies in similar Global South regions.

METHOD

This study employed a mixed-methods approach to examine data governance and privacy in digital public service delivery in Eastern Samar. The quantitative phase used a structured survey of 300 residents who had accessed digital government services within the last 12 months. Respondents were selected through stratified random sampling based on location, age, and gender, covering municipalities such as Borongan, Guiuan, Dolores, and Can-avid. The questionnaire measured awareness of data governance and privacy, trust in digital security, experiences with digital public services, and willingness to share personal data.

The instrument was developed from previous literature, adapted to the local context, and pilot-tested with 30 respondents. Reliability testing produced a Cronbach's alpha score of 0.81, indicating good internal consistency. Due to varying literacy levels, data were collected through face-to-face interviews conducted by trained enumerators using Waray-Waray or Filipino. Quantitative data were analyzed using SPSS 26 through descriptive statistics, cross-tabulations, and correlation analysis.

The qualitative phase involved semi-structured interviews with 20 purposively selected informants, including local government officials, civil society representatives, academics, and technology experts. Interviews explored barriers and opportunities in digital governance, data privacy concerns, and recommendations for improving public trust and digital inclusion. Data were transcribed and analyzed thematically using NVivo 12.

In addition, policy analysis was conducted on the Data Privacy Act of 2012, the e-Government Master Plan 2022, and relevant local policies, with comparisons to international standards such as the GDPR and OECD Privacy Guidelines. Ethical principles were strictly observed through informed consent, anonymity, secure data storage, and approval from the institutional ethics board.

RESULTS AND DISCUSSION

Participant Characteristics

The quantitative sample (N = 300) consisted of residents from both urban centers (e.g., Borongan, Guiuan) and rural or coastal barangays (e.g., Maslog, Hernani, and Jipapad). Participants were evenly distributed across age groups, with the largest segment aged 25–34 (29%) and a significant proportion aged 18–24 (27%), suggesting strong youth representation. Gender distribution was relatively balanced, with 52% female and 48% male respondents. Education levels ranged from elementary (22%), high school (38%), to college or higher (35%), reflecting the varied literacy landscape of the province.

Occupationally, fishing and farming accounted for 21%, with 18% involved in microenterprises and 25% reporting unemployment. Notably, 12% were employed in public service roles, providing valuable perspectives on internal digital practices. The qualitative sample (N = 20) included municipal ICT officers, provincial government officials, NGO workers, school-based IT coordinators, and local technology practitioners. A majority were based in urban municipalities, although several represented remote areas such as Llorente and Dolores. This diversity ensured broad perspectives across geographic, institutional, and professional lines.

Awareness and Understanding of Data Privacy

Survey results revealed that 45% of respondents had heard the term “data privacy,” but only 30% could accurately describe what it meant. While 59% were aware that the Philippines has data protection laws, their understanding of citizen rights under these laws was generally limited. Interviews confirmed this finding: one barangay resident remarked, “*I know we have rules, but I don’t really know what they cover or how it protects us.*” As in many underserved regions, digital literacy gaps in Eastern Samar remain a significant barrier. Several participants admitted to clicking “accept” on privacy policies without reading them. The elderly and economically marginalized were particularly vulnerable to phishing attempts, online scams, and identity theft, risks compounded by low awareness of how data might be misused online.

These findings are consistent with (Mavriki & Karyda, 2019)), who identified limited digital literacy as a key barrier to privacy awareness in developing contexts. However, this study further highlights how environmental vulnerability, such as frequent disasters, amplifies digital insecurity and lowers incentives to engage with digital systems. This divergence suggests that privacy literacy cannot be addressed solely through technical or legal measures but must be integrated into broader community resilience and capacity-building programs. The Table 1 summarizes key indicators of awareness and trust. While over half of respondents had heard of data privacy laws, only 30% could define them accurately. Low levels of institutional trust and high concern over data misuse highlight major governance challenges.

Table 1. Public Awareness and Trust in Data Governance (N = 300)

Indicator	% of respondents
Have heard of "Data Privacy"	45%
Can accurately define "Data Privacy"	30%
Aware of national data protection law	59%
Trust LGUs to manage personal data	37%
Concerned about data misuse	72%

Source: Interview (2025)

Trust and Perception of Government Institutions

Only 37% of respondents indicated that they trusted local government agencies to manage their data securely. Around 72% expressed concern that personal data might be mishandled or misused. Concerns about hacking, surveillance, and unauthorized access were common, especially considering recent ransomware incidents targeting government websites across the Philippines. One civil society leader from Borongan stated, “*People are still afraid. They hear stories of data breaches, but they don’t know what happens after. There’s no clear accountability.*” This trust deficit reflects both a lack of communication from authorities about data protection measures and the absence of transparent mechanisms for recourse in case of data misuse.

Trust in digital services is a central variable in Digital Trust Theory (Carter & Bélanger, 2005), and this study reinforces that institutional credibility, communication, and transparency are essential to building that trust. The finding that only 37% of residents trust government data management echoes global patterns in low-trust environments. However, in Eastern Samar, this trust deficit is compounded by the lack of clear local mechanisms for recourse and data breach response, suggesting a deeper institutional capacity issue that aligns with Heeks’ (2010) model of implementation gaps in developing contexts.

Experience with Digital Public Services

About 64% of survey respondents reported having used digital platforms to access public services such as PhilHealth registration, DSWD cash aid portals, or local permit applications. However, 41% encountered difficulties such as poor connectivity, unclear instructions, or inaccessible user interfaces. Only 53% found the digital systems convenient to use. Interviews highlighted frustrations with underdeveloped platforms. One youth respondent from Guiuan commented, “*Sometimes the form doesn’t load, or the link is broken. I end up going back to the municipal hall anyway.*” This points to a key implementation gap: digital services are often rolled out without sufficient user testing, offline support systems, or digital help desks, limiting their reach and effectiveness.

Infrastructure and Connectivity Challenges

Eastern Samar’s coastal geography, frequent typhoons, and mountainous terrain significantly impact connectivity. Interviewees in Dolores and Maslog shared that internet outages are common, and mobile signal is weak or absent in interior barangays. Only 48% of survey respondents reported having reliable internet at home. Furthermore, lack of access to devices emerged as a barrier. Many respondents relied on shared family phones or internet cafés to complete digital transactions. This digital divide not only restricts access to e-services but also increases vulnerability to scams and fraud due to shared or public logins.

Capacity Constraints within Government Agencies

Interviewed government employees cited limited staff capacity, insufficient training, and outdated IT systems as major challenges. A municipal IT officer remarked, “*There’s no dedicated cybersecurity budget, and*

most of our people don't have any background in data privacy compliance." While the Data Privacy Act of 2012 mandates data protection officers in all public agencies, compliance at the municipal level is weak. Often, roles are assigned without training, and data management practices vary widely. This underlines the need for capacity building, especially in line with mandates from the e-Government Master Plan 2022.

These capacity constraints reflect a classic institutional misalignment between national mandates and local implementation capacity, as described in the Institutional Capacity Model (Heeks, 2010). While policies such as the Data Privacy Act mandate the establishment of Data Protection Officers, the absence of training, dedicated resources, and clear operational guidance undermines compliance. This divergence between policy and practice illustrates what Heeks terms a "design-reality gap," where formal structures exist but lack the institutional support to function effectively.

Opportunities for Transparency and Citizen Engagement

Despite these challenges, the study uncovered strong public interest in digital engagement, especially among youth and working adults. Residents expressed a desire for more open data, feedback mechanisms, and user-centered digital design. For example, several participants suggested having a localized e-Konsulta portal or using Facebook Pages more effectively for service updates. Civil society actors emphasized that with the right safeguards, digital platforms could help monitor LGU budgets, track disaster aid, and crowdsource issues like road damage or illegal logging. One NGO staff member noted, "*The potential for participatory governance is there, if people feel safe sharing their voices online.*"

The emerging demand for participatory digital platforms aligns with international findings on youth-driven digital engagement (Zhang et al., 2023). However, in contrast to urban models where such platforms are widely adopted, Eastern Samar's case reveals a bottom-up aspiration for engagement in the absence of enabling infrastructure. This gap underscores the importance of designing inclusive digital governance strategies that are not only technologically feasible but also socially embedded and ethically grounded. This comparative (Table 2) reveals critical gaps between national digital governance frameworks and their implementation at the provincial level. While policies emphasize inclusion, transparency, and security, local realities in Eastern Samar highlight structural and human resource barriers that limit effective adoption.

Table 2. Comparison of National Digital Governance Policies and Local Implementation Realities in Eastern Samar

Aspect	National Policy (DPA, EGMP)	Local Implementation	Identified Gaps
Data Protection Officers	Mandatory in all agencies	Often untrained; dual roles without clear duties	Lack of capacity and role clarity
Digital Infrastructure	National broadband plan and DICT support	Unreliable signal, especially in remote barangays	Geographic and disaster-related limitations
Digital Literacy Campaigns	Encouraged via DepEd, DICT, and LGUs	No consistent programs at barangay level	Weak local outreach and community engagement
Legal Redress Mechanisms	Citizens may file complaints via National Privacy Commission	Most citizens unaware; no visible local-level mechanism	Trust deficit and lack of enforcement
Platform Design Standards	Promotes user-friendly, secure, and inclusive systems	Portals often inaccessible, poorly tested, or buggy	Absence of localized design and feedback loops

Source: Interview (2025)

CONCLUSION

This study highlights the urgent need for context-sensitive approaches to data governance and privacy within Eastern Samar's evolving digital landscape. As a province characterized by geographic isolation, economic vulnerabilities, and uneven technological infrastructure, Eastern Samar presents a unique and complex setting for the implementation of digital public service delivery systems. The findings reveal a persistent gap between national data governance frameworks and local-level realities. Although policies like the Data Privacy Act of 2012 and the e-Government Master Plan 2022 offer clear mandates for data protection and digital service innovation, their translation into practice in Eastern Samar remains fragmented. Many municipal offices lack trained personnel, appropriate digital tools, and institutional capacity to enforce data privacy standards. Meanwhile, citizens, particularly in rural barangays, face significant barriers in accessing digital services due to low digital literacy and unreliable internet connectivity. Trust remains a central concern. The widespread fear of data breaches, online scams, and surveillance, coupled with a lack of transparent mechanisms for data protection, undermines citizen confidence in digital platforms. Without meaningful efforts to address these anxieties, the full benefits of digital governance will remain out of reach for many Eastern Samareños.

Yet, the study also reveals strong public interest, particularly among younger, urban residents, in engaging with digital government. This momentum can be harnessed if implementation strategies focus not only on infrastructure, but also on people-centered governance: empowering citizens with the knowledge and skills to navigate digital systems and holding institutions accountable for ethical data use. Considering these findings, the following policy recommendations are proposed: (1) Enhance Digital Literacy Campaigns; (2) Strengthen LGU Capacity for Data Governance; (3) Expand Digital Infrastructure and Access; (4) Build Trust through Transparency and Accountability; and (5) Foster Inclusive Digital Governance

Ultimately, digital governance in Eastern Samar must go beyond technology deployment, it must be grounded in ethics, inclusion, and empowerment. By aligning national policy aspirations with the lived realities of local communities, the province can build a trustworthy and accountable digital public service ecosystem. These insights are not only relevant for Eastern Samar but may also inform broader digital transformation efforts across similarly situated regions in the Philippines and the Global South.

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