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GOVERNANCE ISSUES RELATED TO THE DIGITIZATION OF SERVICE DELIVERY IN PAPUA NEW GUINEA: A PILOT STUDY

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Abstract
Digital service delivery has become a common goal for governments around the world. In Papua New Guinea (PNG), the move towards digital platforms faces real barriers. Geography is one. Weak governance is another. The aim of this pilot study was to examine governance-related problems that slow down the digitization of services in PNG. A total of 200 questionnaires were sent out. Of those, 109 usable responses came back. The sample was mostly urban. Findings show that 97.2% of respondents use mobile phones as their main tool for digital access. Corruption stood out as the top governance barrier, with 78.4% of respondents calling it a "high impact" issue. Lack of accountability came next at 75.2%. Financial services had the highest digital adoption rate at 97.2%, and online shopping had the lowest at 25%. Less than half the respondents were satisfied with the quality of digital services. These early results point to serious governance gaps. They also confirm that a large-scale nationwide study is both needed and feasible.

Keywords: Digital Service Delivery, Governance, Papua New Guinea, Mobile Access, Corruption, Digital Literacy, Public Services, Pilot Study.

Introduction

Governments everywhere are trying to put their services online. The idea is simple. Make it easier for people to access what they need. Cut costs. Reduce waiting. And reach citizens who live far from government offices.

PNG is a country where this idea matters more than most. The geography is extreme. Thousands of islands and mountain valleys separate communities from each other and from the capital. Roads are poor. Travel takes days. Many rural people rarely see a government official, let alone a government office.

So digital platforms could, in theory, change everything. A farmer in the highlands could apply for a permit on a phone. A mother in a coastal village could check health information without walking for hours. But that is the theory. What happens when you try to build digital services in a country where governance itself is fragile?

Tan and Taeihagh (2020) studied smart city projects in developing countries. They found that high costs and weak governance killed most digital plans before they started. PNG faces the same wall. Only about 15% of the population has reliable access to electricity (Highet et al., 2019). Smartphone ownership is still low. And policy changes happen slowly, often with little follow-through.

Mobile phones offer a way around some of these problems. A study by Highet et al. (2019) found that mobile coverage in PNG expanded fast between 2015 and 2019. People adopted phones quickly. Even in areas without electricity, people charge their phones using solar panels or car batteries. But coverage alone is not enough. Services need to work. Systems need to be trustworthy. And government agencies need to coordinate with each other.

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That is where governance comes in. Not governance in the abstract sense. Governance as a practical set of questions. Who is responsible? Are rules being followed? Is money going where it should? Can ordinary people hold officials accountable?.

A group of researchers at the University of Papua New Guinea set out to explore these questions. The study was designed as a pilot. It had two goals. The first was to get an initial picture of governance barriers. The second was to test whether a larger, nationwide survey would be possible.

Review of Related Studies

Digitization of public services is not a new topic. Researchers have studied it in many countries. But most of that work focuses on places with strong institutions. Countries in Southeast Asia or sub-Saharan Africa get some attention. The Pacific Islands region, including PNG, gets very little.

Tan and Taeihagh (2020) reviewed smart city projects across several developing nations. Their study pointed to a gap between ambition and reality. Governments often announced big digital plans. They rarely delivered. Why? Money was one reason. Informal economies made it hard to collect revenue. Corruption diverted what funds existed.

Infrastructure is another persistent problem. Highet et al. (2019) conducted a detailed study on mobile technology in PNG. They reported that electricity access remains at roughly 15% of the total population. Even where mobile towers exist, power outages interrupt service. Users experience slow connections. Apps that work well on 4G in Port Moresby fail completely in rural provinces.

How do health services fit into this picture? Howes et al. (2014) looked at ten years of service delivery in PNG and found a clear pattern. Services declined between 2002 and 2012 despite increased spending. They called it "a lost decade." But they also noted that mobile-enabled tools, such as SMS-based reporting systems and telehealth platforms, showed promise for improving accountability.

One recurring theme across the literature is that technology alone does not fix governance. A fast internet connection means nothing if the agency behind the service is disorganized or corrupt. Digital tools can even make things worse if they are poorly designed or if no one is held responsible when they break down.

These gaps in the literature helped shape the current study. Very few papers address PNG specifically. Almost none combine governance analysis with empirical data from PNG citizens. And no prior study has tested a large-scale survey instrument on this topic for PNG.

Research Methodology

Research Design

The study used a descriptive survey approach. A structured questionnaire was developed by the research team at the University of Papua New Guinea. It covered several areas: access to digital services, governance perceptions, satisfaction levels, and the perceived impact of digitization on daily life. The questionnaire went through multiple rounds of review before distribution. Some items were reworded after initial testing. Others were dropped entirely because respondents found them confusing.

Sample and Data Collection

A total of 200 questionnaires were distributed to respondents in urban areas of Papua New Guinea. Of these, 109 completed responses came back. That gives a response rate of 54.5%. The sample was not

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random in a strict statistical sense. It was a convenience sample, drawn mostly from people in or near Port Moresby.

The researchers are aware of the urban bias. Rural voices are missing. And that limits what the data can say about PNG as a whole. But for a pilot study, the numbers are enough to spot patterns and test the questionnaire.

Analytical Approach

The analysis relies on descriptive statistics. Frequency distributions and percentages form the backbone of the findings. No regression models or inferential tests were used at this stage. The study was not designed for hypothesis testing. It was designed for pattern recognition.

Cross-tabulations were used to break down responses by category. Impact ratings were collected on a five-point scale ranging from "Not at all" to "High Impact." Satisfaction was measured on a separate five-point scale.

Findings and Analysis

Primary Device for Digital Access

The first question was straightforward. What device do you mainly use to access digital services? The answer was overwhelming. Mobile phones dominated at 97.2%. Only 2.8% of respondents used a computer or laptop. Nobody reported using a public computer or any other device.

That number is striking. It tells us something about how digital services should be built in PNG. If almost every user is on a phone, then services must be designed for small screens and low bandwidth. Desktop-first platforms will miss nearly everyone.

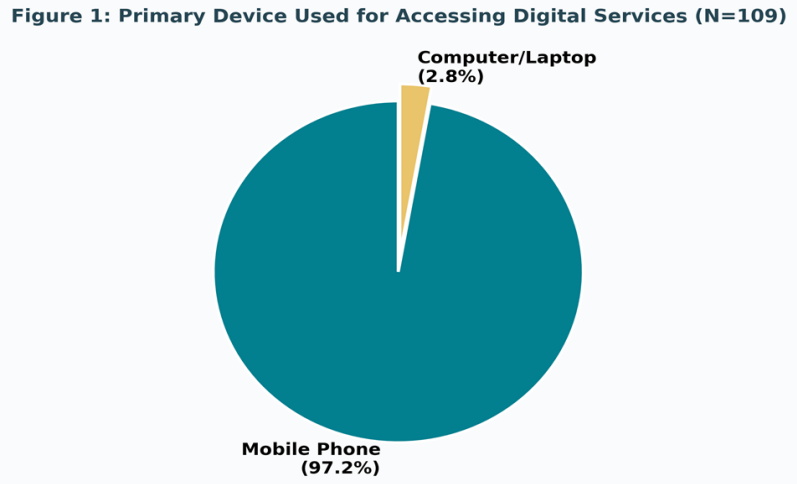

Figure 1: Primary Device Used for Accessing Digital Services (N=109)

Governance Barriers

The central question of the study was about governance. Respondents rated nine governance issues on a five-point impact scale. The results painted a clear picture. Corruption topped the list. Nearly 78.4% of respondents rated it as having a "high impact" on digital service delivery. Lack of accountability followed closely at 75.2%. Then came political will at 66%, poor policy coordination at 65.7%, and lack of infrastructure at 63.8%.

Digital literacy and technical support fell in the 59-61% range. Still high. But lower than the governance-related issues. Financial regulations and legal barriers sat at the bottom, around 46-47%.

What does this tell us? The biggest obstacles are not technical. They are institutional. People see corruption and lack of accountability as more damaging than poor internet or missing hardware.

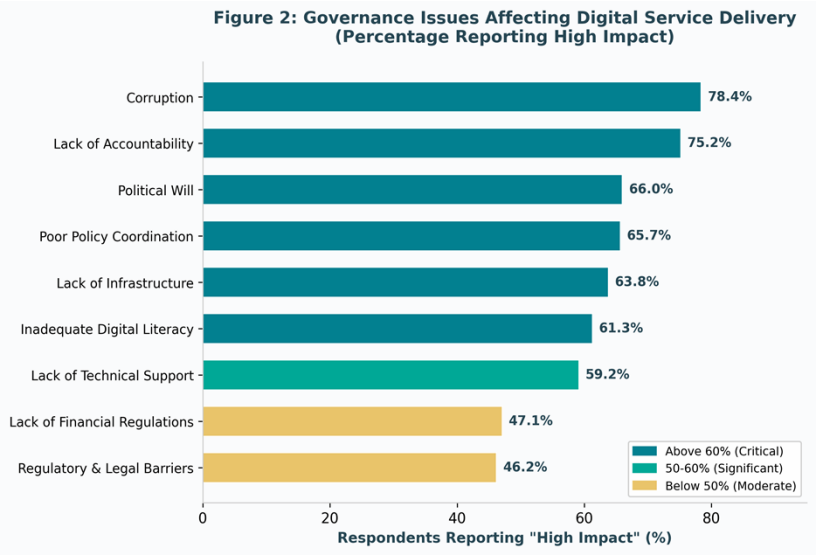

Figure 2: Governance Issues Affecting Digital Service Delivery (Percentage Reporting High Impact).

Figure 6 below shows the full distribution of responses across all five impact levels. It adds depth to the picture above. Look at corruption: less than 4% of respondents rated it as low impact or no impact at all. The severity is almost universal across the sample.

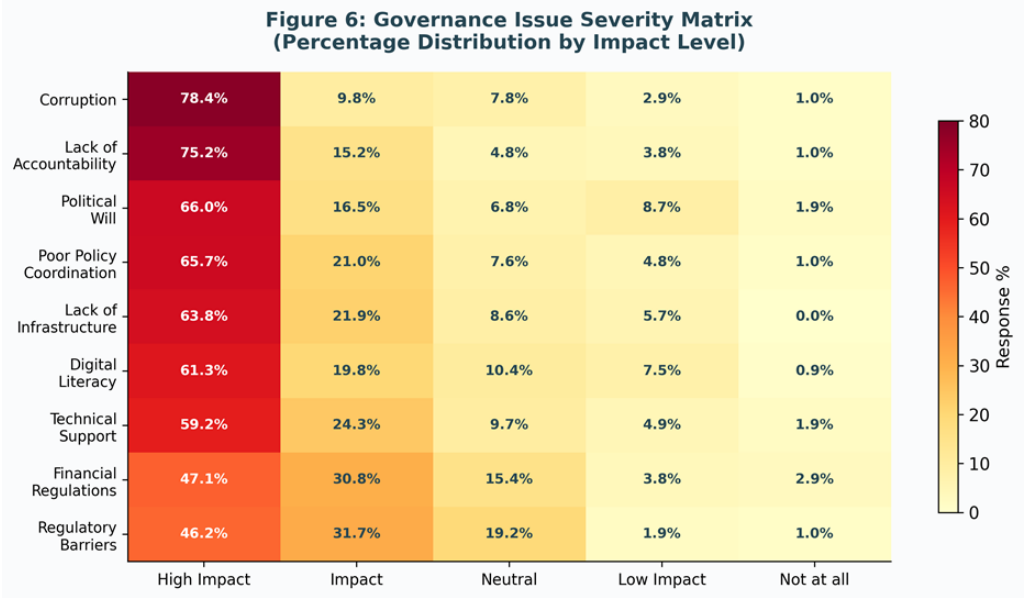

Figure 6: Governance Issue Severity Matrix (Percentage Distribution by Impact Level)

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Sectoral Usage of Digital Services

Respondents were asked whether they had used digital services across seven sectors. Financial services led with 97.2% saying yes. Education came second at 85.8%. Travel services were used by 77.6% of respondents. Government services had a surprisingly low usage rate. Only 46.3% had used them. Health services were even lower at 39.4%. Online shopping sat at the bottom with just 25%.

The gap between financial services and government services is worth noticing. Banks and mobile money operators have invested in user-friendly apps. Government agencies, for the most part, have not. The technology exists. The demand exists. But government platforms are not keeping up.

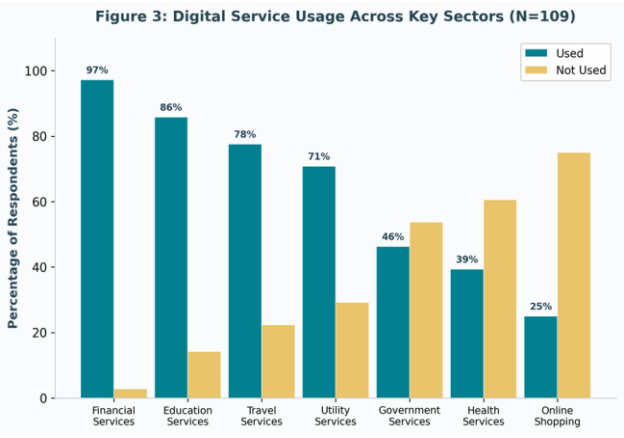

Figure 3: Digital Service Usage Across Key Sectors (N=109)

Satisfaction with Digital Services

How happy are users with what they get? Not very. Only 10.1% said they were "very satisfied." Another 47.7% chose "satisfied." Together, that means 57.8% are at least somewhat satisfied. But 32.1% were neutral. And about 10% expressed active dissatisfaction. Less than half being satisfied is not a strong result. Remember, this is an urban sample. People in cities have better access, faster connections, and more choices. If satisfaction is low here, what would rural respondents say?

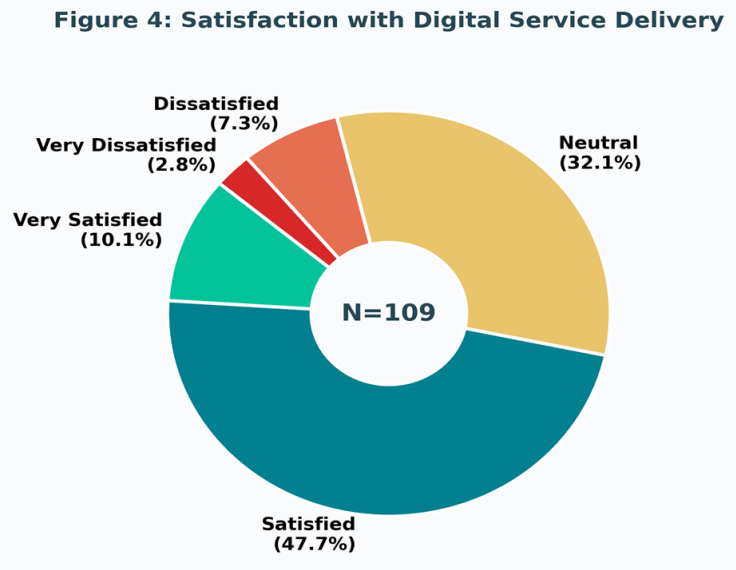

Figure 4: Satisfaction with Digital Service Delivery (N=109)

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Perceived Impact on Daily Life

The final section asked respondents how digitization had affected their daily life across six sectors. Media and entertainment showed the strongest positive effect. About 72.9% said things had improved to some degree. Education followed at 67.6%.

Healthcare showed the weakest positive response. Only 33% reported improvement, and nearly half said nothing changed. Government services hovered in the middle. About 53.7% reported some improvement, but 32.4% saw no change.

Travel and utilities showed moderate results. Most respondents felt some improvement but not a dramatic one. Nobody said digital services had transformed their daily lives. The word "somewhat" kept appearing.

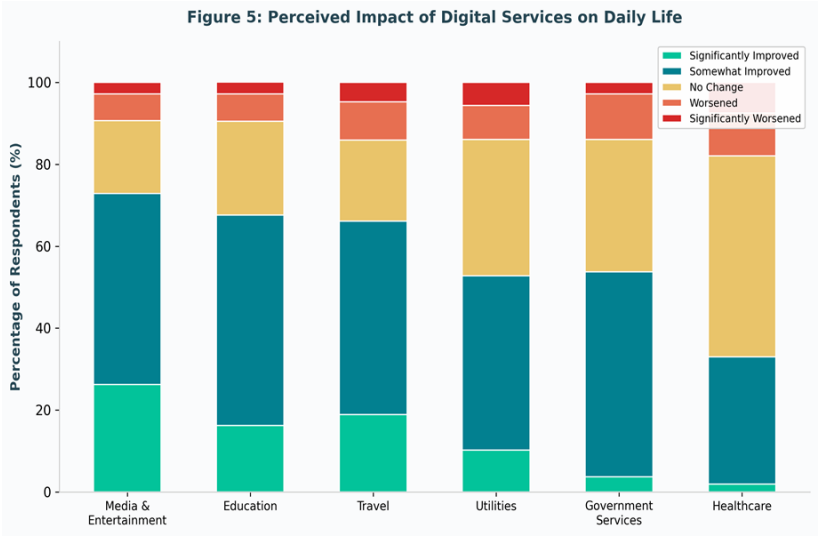

Figure 5: Perceived Impact of Digital Services on Daily Life (N=109)

Discussion

The data tell a story with two sides. On one side, demand is real. People want digital services. They own phones. They use apps for banking and education. On the other side, governance is blocking progress.

Corruption came up as the single biggest barrier. Nearly four out of five respondents put it at "high impact." That matches what Howes et al. (2014) found when they studied a decade of public service delivery in PNG. Money was spent. Services did not improve. Something was going wrong between the budget and the outcome.

Infrastructure matters too. But here is what is interesting: respondents rated corruption and accountability as *more* damaging than infrastructure gaps. That is a strong statement. It suggests that even if PNG built more towers and ran more fibre cables, the governance problems would still hold things back.

The near-total dominance of mobile phones (97.2%) confirms what Highet et al. (2019) reported. Mobile is not just the main channel. It is the only channel for almost everyone. Policy makers should treat mobile-first design as non-negotiable.

The low usage of government digital services (46.3%) compared to financial services (97.2%) is one of the sharpest findings in this study. Banks got it right. Government did not. Why? One explanation is investment. Another is accountability. Banks lose customers if their apps do not work. Government agencies face no such pressure.Satisfaction results add to the concern. In an urban sample with the best available access, only 10.1% were "very satisfied." That is a warning sign for any government planning to expand digital services without first fixing the platform experience.

Limitations

Several limitations apply. The sample is urban and relatively small. Only 109 responses were analysed. Rural PNG, where most people live, is entirely absent from this data. Results cannot be generalized to the whole country. The study captures a single point in time. Technology moves fast. Government policies shift. What respondents felt in 2024 may differ from what they feel in 2026. Longitudinal data would be stronger. Perceptions are not the same as facts. Respondents said corruption is the biggest problem. That does not prove corruption is worse than infrastructure gaps. It proves people believe it is. Those are different claims. A legal or institutional audit would be needed to test the factual side.

Conclusion and Way Forward

This pilot study set out to do two things: explore governance barriers to digital service delivery in PNG and test the feasibility of a larger survey. Both goals were met. The governance picture is not encouraging. Corruption and accountability failures sit at the top of the list. Infrastructure is a problem, but not the only one. Mobile phones are everywhere, yet government services lag far behind the private sector in digital adoption. Satisfaction is low even among urban users with good access. And while most respondents see some positive impact from digital services, the improvement is modest. Nobody described a transformation. The next step is clear. A nationwide survey, covering both urban and rural populations, should follow this pilot. The questionnaire needs minor adjustments based on respondent feedback. Legal aspects of governance, which this study did not cover, should be added to the next phase. What PNG needs is not just better technology. It needs better governance *of* technology. Building apps is easy. Building trust is hard. And without trust, no digital platform will deliver what citizens actually need.

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Appendix: Summary Data Tables

Table 1: Governance Issues Impact Ratings (in percentages)

Governance Issue	High Impact	Impact	Neutral	Low Impact	Not at all
Corruption	78.4	9.8	7.8	2.9	1.0
Lack of Accountability	75.2	15.2	4.8	3.8	1.0
Political Will	66.0	16.5	6.8	8.7	1.9
Policy Coordination	65.7	21.0	7.6	4.8	1.0
Infrastructure	63.8	21.9	8.6	5.7	0.0
Digital Literacy	61.3	19.8	10.4	7.5	0.9
Technical Support	59.2	24.3	9.7	4.9	1.9
Financial Regulations	47.1	30.8	15.4	3.8	2.9
Regulatory Barriers	46.2	31.7	19.2	1.9	1.0

Table 2: Digital Service Usage by Sector (in percentages)

Service Sector	Used (%)	Not Used (%)
Financial Services	97.2	2.8
Education Services	85.8	14.2
Travel Services	77.6	22.4
Utility Services	70.8	29.2
Government Services	46.3	53.7
Health Services	39.4	60.6
Online Shopping	25.0	75.0