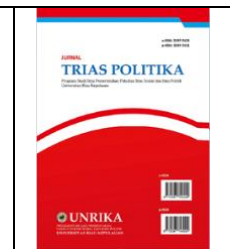


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Journal Homepage : <https://www.journal.unrika.ac.id/index.php/jurnaltriaspolitika>**REIMAGINING SMART GOVERNANCE IN DIGITAL PERIPHERY:
PAPUA AND WEST PAPUA COMPARISON STUDIES****Nita Aribah Hanif^{1*}, Muhammad Eko Atmojo², Muhammad Lukman Hakim³**¹ Government Science, Faculty of Social Sciences and Political Science, Universitas Pamulang, Indonesia² Government Science, Faculty of Social Sciences and Political Science, Universitas Muhammadiyah Yogyakarta, Indonesia³ Government Science, Faculty of Social Sciences and Political Science, Universitas Sultan Ageng Tirtayasa, Indonesia

Abstract : *This study aims to enhance the smart governance performance in the Papua and West Papua Governments in their current condition, especially on the website and platform X. The method of this study is qualitative with a case study approach. The data collected through the documentation technique based on the website and X account of the Papua and West Papua Governments, official government data, online mass media and previous studies literature. This study found that the smart governance in the Papua and West Papua Governments is not optimal and requires improvement in public service, transparency, and public participation indicators. Several challenges of smart governance implementation in both local governments are the infrastructure limitations, low digital literacy capability, and internet signal inclusivity. This study has several suggestions to improve the smart governance performance in the Papua and West Papua Governments. (1) The Papua and West Papua Governments must prioritize digital training for the bureaucracy to enhance digital literacy in the government. (2) The Papua and West Papua Governments are also required to improve their education curriculum to include digital skills for students. Further research is proposed to map the citizens sentimental perception about smart governance in both local governments by social media analysis.*

Keywords : *comparative studies; digital era; papua areas; smart governance; social media analysis.*

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**INTRODUCTION**

The Smart governance implementation in Papua and West Papua is facing a serious problem. Based on data from the Ministry of Utilization of State Civil Servant and Bureaucracy Reformation (KemenPAN-RB) in 2024, the Electronic Government System Index (SPBE) of both local governments is in the top 5 of the worst indexes compared to other provinces in Indonesia. The Papua and West Papua Governments have only scored 2,07 and 2,56 out of 5, which indicates enough for smart governance performance (KemenPanRB, 2024). This condition shows the gap in governance quality in the digital platform of both local governments. This problem is evidenced by the public complaints in both local governments because the public services delay (25%), service is not provided (20,5%), and procedural irregularities (15%), according to the Ombudsman data. Meanwhile, smart governance is the modern governance concept that is constructed for improving transparency, public engagement, and public service quality through digital innovation (Wirtz et al., 2019); (Kankanhalli et al., 2019a)). The main goals of smart governance realization are to build a new

* Corresponding Author: aribahnita@gmail.com

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governance more accountable, integrated and enables to giving of information by real-time (Pereira et al., 2018) ; (Engin & Treleaven, 2019).

These conditions contradict the smart governance theory, which is frequently prioritized by other provinces. Based on (Rudolf Giffinger et al., 2007). Smart governance is part of a smart city to achieve good governance practice in bureaucratic performance through digital public service providers, transparency, and an interactive public sphere.

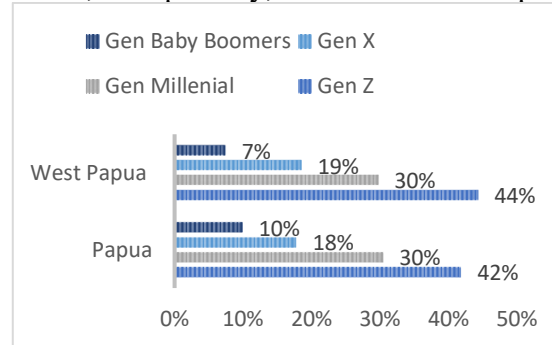


Figure 1. Demographic Component in Papua and West Papua 2023-2024 (Thousand)
Source: (pauabarat.bps.go.id, 2024) and (papua.bps.go.id, 2025) processed by the authors

Moreover, most of the demographic components in Papua and West Papua is Generation Z (born in 1997 - 2012) and Millennial (born in 1981 - 1996). As well as in Figure 1, which shows demographics in both local governments classified by age generation in 2023-2024. The productive age of the community is forcing the government to transform its public service using a digital platform. So, it is urgent for the Papua and West Papua Governments to enhance their smart governance performance, including through social media platforms. Social media is centered on the community involved in the governance process and serves as a basis for public administration programs (Wukich, 2021). Digital platform enables the citizen to access governance information and interconnect within the government, such as public consultation, negotiation, and decision-making (Cui et al., 2024). Therefore, the social media used by the government is not only for transparency, but also a part of checks and balances for the government. Official government website and Platform X were chosen in this study because of the high data validity of these platforms, or minimal hoax, as the best information sharing media compared other platforms (APJII, 2025).

According to this urgency, the study aims to fill the gap in smart governance practice and scientific studies. Practice implications allocated for improving the Papua and West Papua smart governance performance based on the current condition. Meanwhile novelty of scientific studies of this study is taken from the limitation of previous studies about smart governance analysis. This study has mapped the publications in Scopus related to smart governance between 2000 – 2025 in Indonesia and found 61 relevant articles. The analysis leverages tools assistances namely VOS Viewer, which shows nodes and edges. Nodes are the keyword component as the research focus in previous studies; meanwhile, edges are the lines that connect one keyword to another. Most previous studies have focused on digital innovation development and its roles for the government in communication and decision-making functions without a deep analysis of specific platforms, as shown in the figure. The limitation of previous studies is about smart governance implementation by social media, especially in the Papua and West Papua areas as the case study.

This study aims to fill that gap by assessing smart governance leverage in the Papua and West Papua Governments in their current condition, especially on the website and platform X. Additionally, this study aims to enhance smart governance performance in the Papua and West Papua Governments, so the smart governance implementation should be analyzed. This study adopts the smart governance theory from (R Giffinger, 2007) as an indicator to measure the

(Denzin, 1978). Specifically, triangulation within the data resource. So, this study has compiled the data findings of social media with official government data, online mass media, and previous studies for redundancy. As a qualitative validity technique, the findings have high validity when the data result is found repeatedly from various sources. Above all, the authors have realized that this study has limitations, such as the lack of real-document data for data collection in Papua and West Papua directly in the field. However, this limitation does not diminish the validity of the data from the Papua and West Papua Government social media platforms.

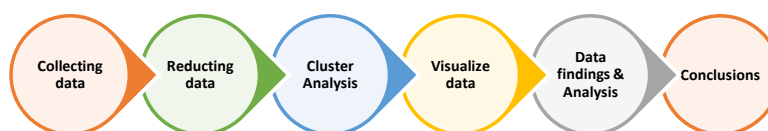


Figure 3. The Processing Stage by the Authors

RESULTS AND DISCUSSION

Technological growth and globalization are forcing governments to improve their public service performance through digital devices, including the local government (Paskaleva & Cooper, 2018). Smart governance is part of the smart city dimension, which can stimulate the public service competitiveness and innovation at the local government level, which affects public satisfaction (Appio et al., 2019)(Sousa et al., 2019). The success of smart governance, when all indicators are fulfilled. (1) Public service, discuss the application capabilities for providing electronic information (e-information), e-service, and e-complaint service (e-report), based on (Lee et al., 2011). (2) Transparency, focus on the openness of official government data, such as budgeting, performance, and program reports. (3) Public participation, conclusions of suggestions, and complaint service to improve the government service. Smart governance can increase public engagement when a lot of positive impact which felt by citizens through the Internet of Things (IoT) in public service (El-Haddadeh et al., 2019).

Public Service

Smart governance is used to improve public service effectiveness, fulfill the stakeholders' needs, and be accessible every time and everywhere (Alghawi et al., 2019a)(Lindgren et al., 2019a). Smart governance encourages public-centric action through the interoperability concept (Tambouris & Tarabanis, 2021). Smart governance systems enable to build integrity data in public services concludes including e-information, e-service, and e-report. As the government communicator, a smart governance application gives real-time information to realize e-information (Appio et al., 2019).

Figure 4. shows that the e-information on the Papua Government Website is limited and not updated. This statement was evidenced by several information menus on the website that were not available or were empty files. Moreover, all the latest population growth updates were updated in 2010, and the development planning document, including the vision and mission of the local government not updated in the 2025 version. The limitation of public data makes information in websites is inaccessible and affect to the low of public participation. The openness of public information is part of the government's effort to involve the community in each stage of the governance process, which consists of planning, implementation, monitoring, and evaluation. It's contrary to the aims of a digitalized system in government to provide integration of public information; however, the government does not optimize it.

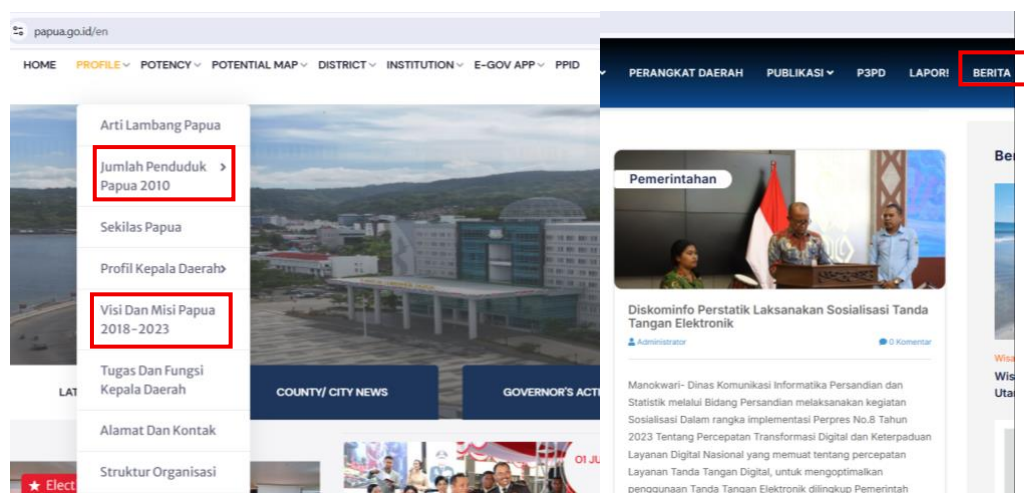


Figure 4. e-Information of the Papua (left) and West Papua (right) Government Website
Source: Authors (2025)

Besides that, the Papua Government, through its X account, namely @pemprovpapua, is active in sharing information with the public related to its activities and planning. In July 2025, it will have updated information related to the residential development subsidy. This information is part of a public service to facilitate community housing. The monitoring system will also be conducted by the Papua Government as their newest post to minimize the illegal levies in educational environments, so the education service can be improved. Enhancing public health services is one of the development plans by the Papua Government. According to their post on the X platform, they will distribute public health services for the underdeveloped regions. Certainly, this information stimulates the community to monitor and evaluate the development progress. Based on the findings on the Papua Government website and X Platform, this study has concluded that e-information can be applied effectively. Unfortunately, the community's response does not indicate that be present a low level of public interest in being involved in governance. So, the social media post only communicates in a way system. Although they are required to update official government data so that the community measure whether the plans will be implemented and have a positive impact on the communities.

Different from the Papua Government, the West Papua Government provides public information through a breaking news menu attached to their website. Update information including their activities, planning, and program. Meanwhile, the public information by file or public data is not attached to their website. The e-information on the West Papua Government account on the X platform, namely @papuabaratoke, only updates data related to tragedies or cases which going on in their areas and the latest updates on government activities in the middle of 2022, so the information sharing is only focused on the website. The public information provided on the website menu primarily discusses the instance's profile and potency of their territory. Therefore, the e-information of the Papua and West Papua Governments is required to be improved to complete public data, update information, and ensure interoperability and data quality, as the aims of smart governance.

The second point of smart governance analysis is an integrated public service system. An integrated system at the local government website is proposed to simplify the public service procedure and increase efficiency, as well as provide effective access (Irawan & Faturahman, 2019a). But to integrate the public service system, the government is requiring collaboration Governments to Governments (G-G)(Chen & Lee, 2018). The main goals of this integration are to provide tangible service for the Government to Community (G-C or C-G) and Government to Business (G-B or B-G) following the electronic government concept. E-service access is unavailable on platform X of both local governments. Meanwhile, on the Papua and

West Papua Government websites, this study found that integrated public service is inaccessible.

Both websites are only integrated with the Government Agency website in their territory, but they do not provide interoperability with public service. So, the community should use the offline public service access manually because their website does not accommodate it. The weakness of their website is forcing them to upgrade by enhancing online public service qualities, including the population administration management application, the population data change, immigration service, and other administrative services. An integration system, especially for administrative management, assists the community in accessing the various services on one platform easily.

Table 2. e-information by Platform X

Accountt	Tweets
@pemprovpapua	
	
	

Source: the Papua Government Account processed by the Authors (2025)

The complaint column on the government website is part of the evaluation process for the government to upgrade its public service qualities. The governance stage includes planning, monitoring, and evaluation of the last program implementation, and the community is required to rate the government regulation and program. The local government in Indonesia has an integrated system, namely e-lapor, to connect the government and community for advocacy suggestions, or problems which was faced by the public related to public service access or

infrastructure development. Figure 5. present that the West Papua Government provides e-lapor on the website menu to facilitate complaints and suggestions by the communities. Its platform attaches procedural guidelines to simplify the community when it submits a complaint. The weakness of e-lapor platforms is that conducted by the West Papua government is passive communication. This study did not find a follow-up plan that was informed by the West Papua Government, so the complaint service only accommodates one-way communication (C-G). Meanwhile, according to the aim of electronic governance, digitalized service to accommodate interactive communication by G-C or C-G.

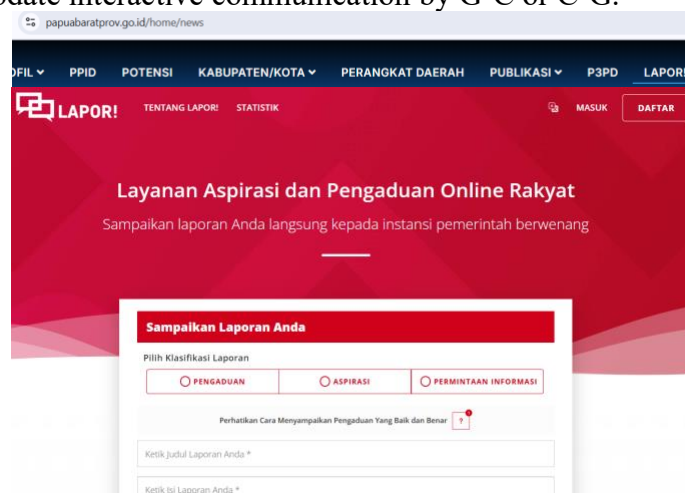


Figure 5. Electronic Complaint Service

Source: West Papua Government Website captured by Authors (2025)

Transparency

Smart governance, as a modernization of the public service, needs to encourage the openness of official government data to the public (Agbozo & Spassov, 2018). Transparency and accountability are a primary part of public service that have a positive impact on governance performance and increase public trust (Alshamsi et al., 2019) (Bauhr & Carlitz, 2020)(R Matheus et al., 2020). (Criado & Gil-Garcia, 2019) argued that digitalized governance will increase effectiveness, efficiency, accountability, transparency, and data openness to realize the citizen-centricity. (Gil-Garcia et al., 2016a) argue that the government aims to apply smart governance to optimize the inclusivity of data access. Smart governance accommodates data transparency for enhancing public engagement (Kankanhalli et al., 2019b).

On their website, the Papua Government shares the budgeting data, especially for regional income in 2013, as the newest data. On that page, they have attached a budgeting link, which provides unavailable information on the link because the link could not be accessed. The budgeting data for other years is unavailable. Transparency data by website improvement is required for the Papua Government to budget data for 2025. The community has the right to observe and evaluate the budgeting used by the government. On the other hand, transparency progress is shown by X Platform, which has attached the special autonomy budget information for 2025. Unfortunately, this study did not find any reaction or comments from the public to criticize the detailed budget usage plan by the government, as shown through the comment icon on X Platform. So, the transparency data conducted by the Papua Government is not optimal without the interactive discussion with the public to observe the budget usage for the local development.

Table 3. Transparency Data by the Papua Government

Platform	Post
Website of the Papua Government (papua.go.id)	papua.go.id/view-detail-page-217/Pendapatan-Dearah-.html# Pendapatan Daerah TARGET REALISASI PENDAPATAN DAERAH TAHUN 2013 dapat di lihat di http://papua.go.id/view-detail-download-43/target-realisasi-pendapatan-daerah-tahun-2013.html
Platform X of the Papua Government (@pemprovpapua).	 Pemerintah Provinsi Papua @PemprovPapua · 20h Pemerintah pusat telah mencairkan dana Otsus termin pertama untuk Provinsi Papua. Adapun jumlahnya sebesar Rp269,7 miliar dan sudah masuk di Rekening Kas Umum Daerah (RKUD). #MenatapPapuaBaru #PemprovPapua #DanaOtsus  papua.go.id Termin Pertama Dana Otsus Dicairkan Pemerintah pusat telah mencairkan dana Otsus termin pertama untuk Provinsi Papua. Adapun ...   1   83 

Source: Website and Platform X, processed by the Authors (2025)

In the transparency aspect, the West Papua Government has opened data, especially related to the Regional Income and Expenditure Budget (APBD) can be accessed for each year on the website. Budgeting data is available and can be downloaded in PDF form. Attached are the details of income, expenditure, and budget usage for development planning. The report related to the budget uses in the several previous years is also available. Positive progress is shown by data transparency for achieving good governance. On the other hand, the budgeting information is unavailable to share on the X platform because the latest post inside in 2022.

Meanwhile, the provision of government data enables to motivate citizen engagement on the governance progress as a smart and good governance principle (Mukhametov, 2022). Upgrading transparency performance on the government digital platform is needed to achieve interactive governance. The low organizational capacity to operate digital devices and manage public data is the reason for the Open Government Data (OGD) performance level (Myeong et al., 2021). These findings relate to local government in Papua and West Papua according to the evaluation of the service system based on electronic (SPBE) from the Ministry of State Civil Apparatus Empowerment and Bureaucratic Reform of Indonesia in 2022 (newest data). The evaluation result is that the Papua and West Papua governments have the lowest index top 5 of 33 provinces in Indonesia (KemenPAN RB, 2023). Index both governments are 2,1 and 1,88 out of 5, which is considered a medium enough predicate. One of the assessment indicators is the government's capability to manage public data and distribute it through a digital platform.

Urgency of accountability performance is involved in smart governance performance because it has an impact on increasing public trust and minimizing corruption at the local government level (Kundu, 2019a) (Ricardo Matheus & Janssen, 2020) (Lapiente & Van de Walle, 2020). Digitalizing the government system is one of the efforts to decrease the corruption risk because authority distribution to local government as the autonomous concept, which is used by the Indonesian Government (Sofyani et al., 2020). The failure of transparency OGD in Papua and West Papua was strengthened by corruption cases in both local governments. Based on corruption data in 2023, the Papua Government is the highest money

laundersing case at the provincial level of 144 billion and affects state losses of 130 billion. The same things occur in the West Papua Government that result in state losses of 58 billion (Anandya & Ramadhana, 2024). These cases can be minimized through optimizing OGD in the digitalization platform. So, providing Information Technology (IT) operation training should be prioritized by both local governments that are supported by financing regional spending.



Figure 6. Transparency data by the West Papua Government
Source: papuabarprov.go.id (2025)

Public Participation

Smart governance, as one of the smart city's dimensions, aims to build a citizen-centric governance process. To achieve it, the government needs to accumulate citizen's information such as public problems, perceptions, development priorities, demands, and feedback from the policies, and implementation (Teorell et al., 2021); (Kumar et al., 2016). In line with the study of (Gao et al., 2020b) and (Ferreira et al., 2022), He argued that public participation was needed by the government as the baseline for decision making, according to the problems faced by the communities. Strengthened by (Zhao, 2022a), a survey found that 66% citizens agree that a smart media device has a role to encourage social governance through public participation in social media (Zhao, 2022a). Digitalization is increasing public awareness to get involved in the governance process (Tomor, Meijer, Michels, & Michels, 2019) (Szarek-Iwaniuk & Senetra, 2020) (Lee-Geiller & Lee, 2019a). (Siyam et al., 2020) argue that the citizen can express their opinion by pictures, posts, and replies in social media.

Public participation stated by Elliott in (Parry et al., 2021) is the involvement of association, group, volunteer, and political actor. Public engagement is a part of main component in smart cities and technology information application to create urban spaces, which will increase the quality of life and encourage the decision-making process based on public interest (Anggraeni, 2018). This study found that the citizens involved in Papua and West Papua is low on the website or X Platform. The websites of both local governments are unable to show the citizen participation history, also the government's response to the citizens' suggestions is unavailable. This condition indicates the low level of interactivity of public participation on the website. Moreover, the comments, replies to the post, and complaints from the citizen or civil society on the X platform are not found. This condition is contrary with the aims of X Platform can accommodate public participation and support democracy achievement (Alkhamash et al., 2019).

Figure 7. is attached several accounts that are involved in public discussion with the Papua Government Account in the X Platform. The figure also presents the blue line to show the strong and frequent relationship between the accounts in the discussion. That figure is presented for the majority of accounts which involved in the discussion activity, consisting of

the formal sector instances such as police, government, and mass media. The information sharing is dominated by live updates related to the phenomenon in Papua and the local government activity, as shown in the right table. So, this post is only to inform the government program for citizens, but is unable to give suggestions or critical thinking to increase the government program's quality based on the public who are affected by the program.

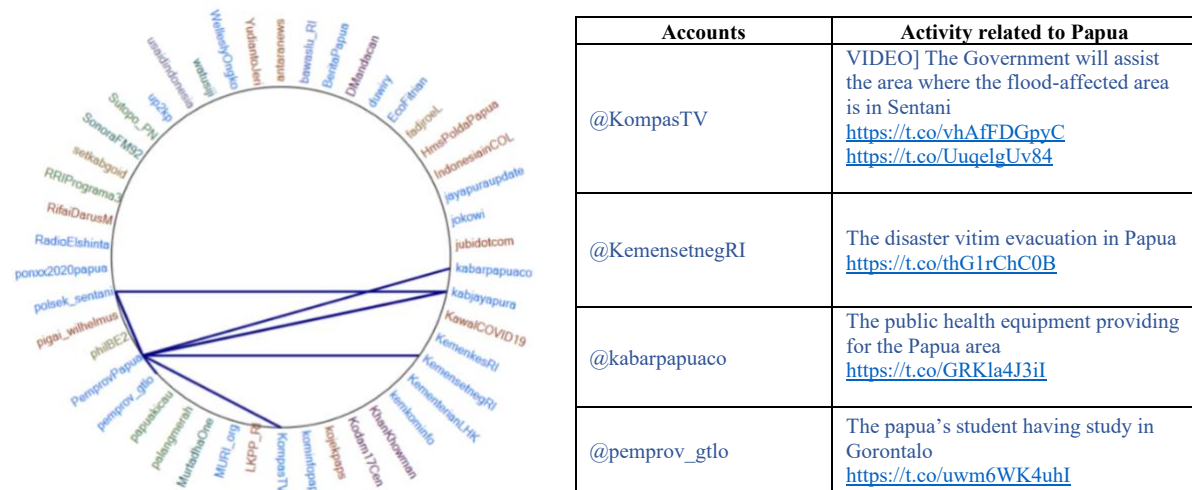


Figure 7. Username Involvement at @pemprovpapua Account
Source: X Platform processed by Authors (2025)

Meanwhile, the public engagement of the citizen or civil society is a minority and rarely involves the digital public sphere. This study only found several accounts which detected as citizens; unfortunately, the context of the discussion is outside of the government program and public service sector.

Based on the findings in Table 4, shows majority of the citizens' posts and replies on the Papua Government X platform account are related to donation needs. The discussion activity, which focuses on suggestions or criticism for public service and OGD improvement, is not found. Moreover, the public engagement on the X platform of the Papua Government is limited, which indicates a low level of public engagement in this local government. The worst condition occurs in the West Papua Government, where the posts or replies created by citizens are unavailable. Even this study found that their X platform account is inactive presently. The low level of interactivity of the government and citizen accounts, one of the smart governance problems because public participation is not applied effectively. This study has mapped several factors of the low level of public engagement in the Papua and West Papua area, according to mass media analysts: (1) infrastructure limitation, and (2) digital literacy.

Table 4. Public Engagement at @pemprov papua Account

Nama Akun	Kutipan tweets
@duwiry	@PemprovPapua, please help improve the public infrastructure, such as electrical energy, and infrastructure for study. The open donation is available by kitabisa.com https://t.co/89LUWhgezW
@watusiji	The donation application to support study funding for a student from Papua who studies on Java Island https://t.co/lxxkDGqWc6
@RifaiDarusM	The urgency of integrity for Papua https://t.co/i8EFzdH4k9

Source: X Platform processed by Authors (2025)

Figure 8. shows that the Papua area is facing infrastructure limitations, including internet signal distribution and digital devices such as laptops, computers, and handphones. Papua is the worst area of the digital infrastructure index compared to other provinces in Indonesia, with a score of 28,64 out of 100 (Ahdiat, 2023). Even this index is below the digital infrastructure of the national index is 41,46. Unavailability of digital infrastructure obstructs information distribution for the government, citizens, and businesses. As a smart governance concept, that digital platform can accommodate a cycle of information from G-C or C-G and G-B or B-G, so the distribution of information is optimum and interactive. Community to Government (C-G) as part of the democracy concept realization on the governance process at the program plan arrangement, budgeting by public priority, monitoring on implementation, and evaluation to improve the program in the next budgeting periods. The lack of public participation, in cases where local governments are unable to accommodate public decisions on government programs. The same things for Business to Government (B-G) relations. The business needs to connect with the government regarding business permission, managerial guides, and funding supported by the government. The business sector has the right to contribute to the government program building to encourage the business ecosystem. Based on the capture data of the X platform accounts at both the local government, this study concludes that the interaction between the community, business, and government is not optimal.

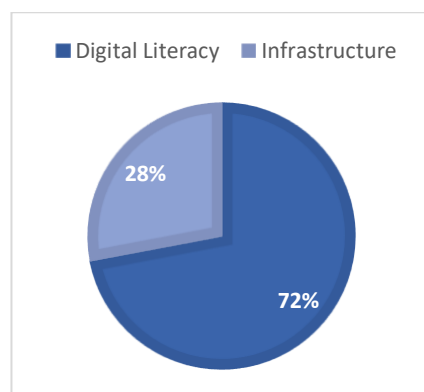


Figure 8. Digitalization Problem in Papua Areas
Source: Authors (2025)

Strengthened by the Ministry of Communication and Digital (Komdigi) report, inside is attached the Papua citizens argument related to the inclusivity of internet signal for each area in Papua (komdigi.go.id, 2025).

*“In Papua areas, a lot of remote areas are unable to receive an internet signal”
“The limitation of online media infrastructure in Papua areas triggers the information sharing.”*

Although the Indonesian government has improved the development of digital infrastructure and made it one of the national plan’s strategic priorities from 2020 – 2024, it’s not enough, as digitalization development is a long-term investment that should be built consistently. Evidenced by Base Transceiver Station (BTS) distribution data from (data.komdigi.go.id, 2023a) stated that the Papua area is one of Indonesia's provinces with the lowest BTS distribution. BTS is an internet signal consisting of 3G, 4G, and 5G, which encourages data distribution through the internet database. In the Papua cases, the ratio of citizen’s access to 4G is only 16,7% compared with the national ratio is 73,2%.

Moreover, the fiber optic development in the Papua area is only 62% of 100% in other provinces of Indonesia (data.komdigi.go.id, 2023b). Fiber optic is a technological innovation

through fiber or plastic to distribute online data by light signal. Fiber optic is frequently applied in telecommunication, internet signal, and other applications because of its speed and data capacity due to its superiority. The limitation of infrastructure support is one of the challenges faced by the Papua and West Papua Governments to improve their smart government performance, as well as other provinces with developed infrastructure. The public engagement is also not optimal for applying because the citizens find it difficult to access. Furthermore, according to the Statistics Central Bureau (BPS) in 2023, the percentage of citizens who have a handphone in Papua Province is 37,95% and West Papua 65,76%. Which of these points is under the Indonesian point average of 67,29% (bps.go.id, 2024). The main point is that the low level of public engagement in the Papua area is not caused by the public interest for involved to government progress only, but the limitation of internet infrastructure makes the public sphere inaccessible to all whole of citizens in the Papua area. Besides, the second factor of the low level of public engagement in the Papua area is digital literacy (72%) is the biggest challenge for the Papua government and citizens, including Papua and West Papua Provinces. This study found that the limitation of the digital literacy phenomenon occurs in the whole of the Papua area, including bureaucracy, citizens, and students. As well as stated by (menpan.go.id, 2018), the smart governance problems in the Papua and West Papua Governments relating to the limitation of digital literacy in bureaucracy around.

The lack of digital capability training, adaptability to digital innovation, and digital involvement in the education sector means that the citizens and governments in Papua and West Papua have low digital literacy. Contrary to the smart governance readiness components, which consist of the government capability and public involvement through technology devices (Tomor, Meijer, Michels, & Geertman, 2019a). This finding is supported by the digital capability of the whole of Papua is the lowest index in Indonesia, at 34,95 in 2021. Contrary to other provinces in Indonesia, including Yogyakarta is 99,07; Jakarta is 98,37; Bali is 97,23, and others in the index up to 90. Even though the Papua index is under the national index in Indonesia, it is 91,83 (goodstats.id, 2022). The indicator of this index is digital capability and literacy of teens and adult citizens of the whole of the Papua area. This data is encouraged by Statistics Central Bureau findings that only 41% of students in Papua use digital devices to access information. Even the ratio of citizen access to internet signals in the Papua area is 26,3% of 63,9% the national ratio for the same context (Iswara, 2023). The low number of digital users in the Papua area makes it difficult to force the public sphere through digital social media such as websites and X.

Discussion

The findings of this study demonstrate that the implementation of smart governance in Papua and West Papua remains limited, particularly in terms of public service integration, transparency of official data, and public participation. Compared with previous studies, the evidence both supports and contradicts existing literature on smart governance in developing contexts. First, regarding public service, the study confirms the argument of (Alghawi et al., 2019b) and (Lindgren et al., 2019b) that smart governance should always enable accessible and effective services. However, the results from Papua and West Papua indicate otherwise: while social media platforms such as X are actively used to disseminate information, government websites remain underdeveloped, fragmented, and outdated. This aligns with (Irawan & Faturahman, 2019b), who argue that integration failure at the local level hinders efficiency, but contradicts findings by (Chen & Lee, 2021), which suggest that G-to-G interoperability can strengthen local service delivery. In this case, the lack of technical capacity and infrastructure makes Papua and West Papua lag other regions where digital public services are more advanced.

Second, in terms of transparency, the results both support and challenge prior research. On one hand, the West Papua Government has made progress in publishing annual budgeting data on its website, confirming the view of (Bauhr & Carlitz, 2021) that open data fosters accountability. On the other hand, the Papua Government still shares outdated or inaccessible budget information, which contradicts Criado and (Gil-Garcia et al., 2016b), who argue that digitalized governance inherently enhances accountability and inclusivity. Furthermore, corruption cases in both provinces show that the transparency deficit has tangible consequences, echoing concerns by (Kundu, 2019b) that weak open data governance increases corruption risk.

Third, regarding public participation, this study reinforces (Zhao, 2022b) and (Gao et al., 2020a), who emphasize the potential of social media to foster citizen engagement in governance. However, empirical evidence from Papua and West Papua suggests that such potential is not realized. Citizen interactions on government platforms remain minimal, dominated by one-way communication and limited to formal institutional actors rather than grassroots civil society. This condition is consistent with findings by (Tomor, Meijer, Michels, & Geertman, 2019b) that low digital literacy and weak infrastructure undermine participatory governance, particularly in peripheral regions. Contrarily, it challenges optimistic claims by (Lee-Geiller & Lee, 2019b) that digitalization automatically increases public awareness and involvement.

Overall, these findings highlight a persistent empirical gap in smart governance research, particularly in remote and underdeveloped regions. While existing literature largely focuses on urban and technologically advanced contexts, this study shows that the promises of smart governance cannot be generalized without considering local constraints such as infrastructure, digital literacy, and organizational capacity. This research contributes to the literature on smart governance by extending the application of (Giffinger, 2007b) indicators public service, transparency, and participation into the context of peripheral regions. It demonstrates that the theory needs to be contextualized: in areas with infrastructural deficits and low digital literacy, the digital governance cycle (Government Citizen, Citizen Government, Government Business) cannot function effectively. Hence, the study challenges the assumption of universality in smart governance frameworks and highlights the need for a differentiated model that accounts for regional disparities.

Practically, the study provides policy implications for improving digital governance in Papua and West Papua. First, local governments need to prioritize the development of interoperable public service platforms that integrate administrative services online. Second, transparency mechanisms must be strengthened by ensuring that budget and planning data are updated, accessible, and discussed interactively with the public. Third, digital literacy programs should be expanded for both citizens and bureaucrats, accompanied by infrastructural investments in internet access and devices. These measures are critical to reduce regional disparities and align Papua and West Papua with national digital transformation agendas. In sum, while previous studies have portrayed smart governance as a pathway to efficiency and inclusivity, the findings from Papua and West Papua show that such benefits are conditional on addressing local challenges. This study therefore positions itself as a corrective to overly optimistic narratives, emphasizing that smart governance must be approached not only as a technological project but also as a socio-political and infrastructural challenge.

CONCLUSION

According to the findings, this study concludes that the smart governance in the Papua and West Papua Governments is required to improve in public service, transparency, and public participation indicators. This study found that the first indicator, digital public services on website or platform X of both local governments, are unavailable. The citizen must process

their administrative data by manual technique. The second indicator, transparency, both local governments have their respective strategy through website or platform X, although they are not optimizing both platforms outright. The last indicator, public participation. Both local governments have provided a public sphere by e-lapor on the website and a comment column on platform X. However, the public engagement in both areas is low. Several challenges of smart governance implementation in both local governments are the infrastructure limitations, low digital literacy capability, and internet signal inclusivity.

This study has several suggestions to improve the smart governance performance in the Papua and West Papua Governments. (1) The Papua and West Papua Governments must prioritize digital training for the bureaucracy to enhance digital literacy in the government. Both local governments also need to recruit for the bureaucracy candidate based on their digital operation capability to build a digital ecosystem within them. Although the digitalization training has been attached to the Long-term Regional Planning and Development (RPJMD) of Papua for 2018-2023 as a government program. However, the program's action on strategic planning was not optimal and was conducted by the Regional Planning and Development Agency and the Communication and Information Agency of both local governments. (2) The Papua and West Papua Governments are also required to improve their education curriculum to include digital skills for students. This strategy aims to improve the digital literacy of the young generation of citizens of both local governments. So, the digital literacy in Papua and West Papua is enhancing at the government and citizen levels, which can encourage the smart government performance in these. Further research is proposed to map the citizens sentimental perception about smart governance in both local governments by social media analysis. Future research could explore how citizens truly feel about smart governance in Papua and West Papua by analyzing their expressions and sentiments on social media platforms

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