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Transformation of Public Services in the Island Regions: Improving Community Participation through Information Technology

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ABSTRACT

Transforming public services in archipelagic regions is an urgent need to realize a government that is inclusive, adaptive, and responsive to community needs. Archipelagic regions in Indonesia face unique challenges in providing public services, such as limited infrastructure, geographic barriers, and isolation between regions. These conditions often lead to low service quality and minimal public participation in government processes. This study aims to critically examine how ICT can improve public participation in public services in archipelagic regions, considering geographical challenges and the decentralized conditions of regional government. Using a qualitative approach and case study methods in several archipelagic regions in Indonesia, the findings indicate that digital access and digital literacy are crucial variables influencing the effectiveness of e-government. Infrastructure gaps and low technological capabilities of the community are often the main obstacles. However, when access and literacy are achieved, ICT can open a broad dialogue between citizens and the government, enabling the public to actively participate in the planning, monitoring, and evaluation of public services. Within a decentralized framework, the use of digital social also strengthens the position of local governments as key actors in managing locally-based services. Thus, digital transformation in island regions is not only about system modernization, but also about building a participatory ecosystem based on trust, openness, and connectivity.

Keywords: Increasing Public Participation; Services;Transformation; Island Regions Information Technology; Public

INTRODUCTION

In the current digital era this, transformation service public become something inevitability in frame realizing governance more government open, participatory, and responsive to need society. Progress technology information has open opportunity big for agency government For speed up innovation, efficiency, and transparency in give service. Not only focused on speed and ease of use technology information can also be become bridge For increase participation public in a way active in the process of implementation government and services public.

Digital transformation in sector public No only concerning modernization system, but also change pattern relation between government and citizens. Society today can more easy convey aspirations, doing supervision, up to follow contribute in taking decision through various digital platforms. This in line with Spirit The 4th Astacita, namely " Strengthening substantial democracy and system "Clean, effective, and trustworthy government." The 4th Astacita emphasizes importance building governance government that does not only transparent and accountable, but also involves public in every the process. However Thus, the realization transformation service inclusive public Still face various challenge, start from digital divide, low literacy technology, up to resistance institutional to change. Therefore that, a comprehensive strategy is needed For ensure that digital innovation in service public truly capable increase involvement society, especially in context areas that have characteristics geographically, socially and culturally diverse.

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Technology information (IT) can become highly relevant solutions For overcome challenge said. However, even though technology information promising Lots benefits, implementation in the region archipelago Still face various challenges. Limited infrastructure, low digital literacy, as well as inequality internet access becomes significant obstacles in implementation system service public based technology in the region. Utilization of IT, such as application web or mobile based, digital platforms can used For give access more wide to public to service public without must face constraint distance and time as well as provide governance processes more efficient and transparent. (Hartono, S., & Yulianto, H. 2022, Yuliana, et al., 2019). Regions often experience difficulty in get service base like education, health, and licensing, so that technology information, through digital platforms such as the 4th Astacita as application based technology. Allows local communities archipelago For access service public in a way direct, reduce gap access, as well as speed up participation they in the process of taking decision government. (Baharuddin & Nasir, 2020, Hidayat & Wibowo, 2022). Technology such as e-government, digital applications for administration population and system service web -based has tested in several area islands, such as in the Regency Meranti Islands, West Halmahera, and the region others. (Rahman, 2020 & Hidayati, 2021)

A number of study disclose results that " Implementation E-Government based public services in the regions archipelago become something interesting For attention. Structure area archipelago Alone has give characteristics different characteristics with problem electricity, network and access in get excellent service provided by the provider service " (Money & Bataha 2024). Furthermore implementation of e-government, which utilizes electronic platforms in organization government, capable increase quality service public in a way significant, good from aspect effectiveness and efficiency (Nugraha & Santika, 2020). Technology information also provides real contribution for environment government, especially at the village level. Implementation technology information in government village can support activity service to society, such as development village, management activity government village and development public village. In fact, technology This potential For increase welfare public village.

Indonesia has a very wide and diverse geographical area, so that give room for government area For play a role active support policy government center through various the innovations they develop. Development technology Service public in the region the islands in Indonesia often experience unique challenges, both from aspect geographical and demographics. With more Of the 17,000 islands, Indonesia has challenge alone in give efficient and effective service to society. According to data from the Central Statistics Agency (BPS) in 2021, around 70% of population in the area archipelago Still experience difficulty in access service base like education, health, and infrastructure. This due to limitations transportation and communication, which often result in gap in service public. In the context of this technology information (IT) appears as solution potential For increase participation society and efficiency service public. The use of IT can help bridge gap information and enable public For more involved in retrieval process decision. A a study by the World Bank (2020) shows that implementation technology information in the sector public can increase transparency, accountability, and participation society. Therefore that, research This aim For explore How transformation service public through technology information can increase participation local communities islands.

Participation public is empowerment community, involving role along with it in activity start from compilation planning until implementation of policy programs, as well as is form actualization

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willingness and desire public For contribute. In addition Participation principled in demanding community to be empowered, then given opportunity and inclusion in bureaucratic processes start from stage planning implementation and supervision or policy public (Fadhil, 2013). The implementation of e-Government is valued can give benefit in the form of efficiency and effectiveness function government with the aim is to ensure transparency government become more good and existence improvement from participation citizens in the governance process (Turban, 2017).

Government North Halmahera Regency is one of the areas that are trying For develop SIDABILOHA innovation (**System Village Information and Applications Integrated Halut Online Services)** through the Communication, Information and Cryptography Service & the Community and Village Empowerment Service. In the development technology information moment this, then government area through the Communication and Information Service do breakthrough develop village website applications in 197 villages in North Halmahera district as part from Efforts to support policy government center.

METHOD

Study use method descriptive qualitative with approach studies cases that are carried out through construction from reality social and meaning culture as well as focus on the most active processes, events, authenticity, not free values, theory and data integrated, situational or contextual, and engagement researcher (Cresswell, 2014). Data collection was carried out with three events, namely, observation, documentation as well as results interview in-depth research done moment research. Sources of data obtained from secondary data and primary data. Selected informants with snowball method for get interview data deep in accordance with research focus. Next analyzed done based on 3 components that is data condensation, data presentation and retrieval conclusion.

RESULTS AND DISCUSSION

North Halmahera Regency as one of the area the islands in North Maluku Province have challenge complex geography, with areas consisting of on mainland and archipelago islands small. In some year Lastly, the government area has show commitment to digital transformation with develop various service platforms public based technology information. Discussion in Research result This will covers analysis deep about various initiative technology information that has been implemented in the area islands. One of the for example is implementation e-government system that enables public For access service public online. According to data from the Ministry of Communication and Information (2021), more than from 50% of the government regions in Indonesia have implement e-government system, which has an impact positive to convenience access service for society. However, the challenges still there are, especially in matter infrastructure and digital literacy. Many areas islands that are still experience limitations in internet access, which is barrier main For optimize use technology information. Data from Association Indonesian Internet Service Providers (APJII) shows that only around 30% of the people in the area islands that have adequate internet access. This cause gap in participation society, where those who do not own internet access tends to marginalized from the decision -making process.

Study previously ever conducted by researchers explain that local communities archipelago West Halmahera Regency still depend on method traditional in access service public. Service health,

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licensing, and administration population often done through track sea, which can endanger safety public consequence weather bad. In addition, adoption technology information in service public Still limited. In addition method picking up the ball, Digital KTP was successful increase participation society and make it easier access service administration population, which has an impact on efficiency and quality service public in North Halmahera (Uang, et al. 2023).

Geographic location is one of the factor affecting for individual For accessing ICT. Although ICT provides solution alternative For communicate to society that is geographical isolated, but still just inhabitant rural expected can utilise the advantages of ICT still left behind by society urban, because infrastructure limited telecommunications, and problems culture (Hindman, 2000). The results of Chen and Wellman's (2004) study found that that location geographical is one of the factor significant influence access public in Internet usage. A study conducted by Feldman in 2001 also confirmed that public rural more tend reluctant For adopt technology new Good That product and service If compared to public urban those who are more willing For to be a trendsetter. To push ICT diffusion at the stage Early on, Feldman argued that policy a more top- down public right, especially in the sector telecommunication implementing information highways (Faziharudean, 2005).

Molnar (2003) stated that There is three type digital divide, namely access divide or digital divide stage the beginning refers to the gap between communities that have access and what not own access towards ICT. The next gap is usage divide or primary digital divide which refers to the differences use of ICT between communities that have access towards ICT. As for the gap furthermore is the quality of use divide or second layer digital divide that focuses on difference quality the use of ICT in communities that use ICT in daily life. Problems difference geographical always be one of attention about How method diffusion A technology new ongoing. There is an assumption that development technology follow the distribution process from urban (core area) to area suburbs / rural areas. Urban areas will become center For development of ICT, on the other hand the area outskirts or rural will late in adopt ICT so that will experience delays in experience change.

North Halmahera Regency is an archipelago area with condition geographically spread, covering islands small and remote coastal areas. Access to service the public is very much determined by distance geographical, transportation between islands, as well as digital infrastructure that has not been evenly distributed. There are a number of findings including ;

1. Quality Public Services Are Still Unequal
    - Informant public mention service like health and administration population slow and requires they cross to center regency or subdistrict.
    - Service office public No available during the day day, so that inhabitant all management will done at night day. This is because electricity is not there during the day day, only there at night day.
2. Limited Access to Technology Information
    - Most of the respondents have a smartphone, but Internet access is highly dependent on location, electricity and weather.
    - Internet network is not stable in many village coast and islands.
    - Although government area has launch a number of application service public, however low digital literacy make inhabitant No can use it.

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3. Digital Transformation Not Yet Felt Fully
    - Digitalization service public considered only touch surface, not yet reach village level.
    - Residents feel No Once involved in development application or service platform, and only know existence digitalization from social media or party third.
    - Training or socialization Not yet evenly and tend to nature formalities.
4. Low Public Participation in Digital Platforms
    - More citizens often convey aspirations in a way direct to apparatus village compared to use application complaint.
    - When the application provided, no all inhabitant know method use it, even there is something wrong know that application That There is.
    - Digital participation tends to low, not Because indifference, but rather Because obstacle technical and social.
5. High Hopes, But Need Mentoring Real
    - Respondents appreciate the idea of digital services, but emphasize importance mentoring direct, training based community, as well as strengthening Internet Network.
    - They hope There is customized digital services with condition local, easy used, and fast followed up.

In context this, collaboration between government, society, and sectors private sector is very important. Government area need weave partnership with provider service technology For develop necessary and providing infrastructure training for society. With existence collaboration this, it is hoped can created supporting ecosystem use technology information in service public, which in turn increase participation society. Most of agency the government that became object study has adopt system service digital- based, such as service administration online population system digital queues at facilities health, as well as complaint platforms society. Transformation This bring efficiency from side time, cost, and mobility. Today's society No need come direct to office service, because Lots procedure Already can accessible online. However thus, success digitalization This Not yet evenly distributed. Areas with limitations digital infrastructure and literacy low technology Still face obstacle in access services. Transformation service the public is also visible from increasing participation public in taking decisions and supervision services. Digital platforms such as social media, applications complaints and citizen forums become channel increasing participation active used. This is give room for public For convey needs, complaints and aspirations in a way direct to government.

A number of innovations that have been implemented among others: 1). Village website, as means data and information integration services, 2). Services **online civil registration** that allows management administration population without must come direct to office center, 3). Social media official device area used as channel information and complaints society. However, the effectiveness innovation the Still face constraint technical, such as limitations internet access on the islands outermost (such as Doi Island, Nusa Kea Island, and Kakara Island), as well as lack of digital devices at the level ward or village. Based on results interview with community and apparatus in the sub-districts archipelago like Loloda Islands and South Tobelo, found that:

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- People started **using social media** (such as Facebook and WhatsApp) to convey complaint or request service.
- There is **interest tall from circles young** For access digital services, especially For administration population and information help social.
- However, **participation inhabitant carry on age and women in remote areas Still low** Because obstacle digital literacy and infrastructure.

A number of respondents public convey that they more choose come direct to office sub-district head or village Because No understand method use online services. This is show that access to digital services yet fully evenly in a way social and geographical.

CONCLUSION

Impact positive from implementation technology information to participation local communities archipelago must measured and evaluated in a way periodically. Use indicator clear and measurable performance can help government For understand effectiveness from initiatives that have been applied. With Thus, research This No only give description about potential technology information in increase service public, but also provide recommendations that can be implemented For reach objective said. Transformation service public is a dynamic process that involves change technology, institutions, and culture service. Success transformation is highly dependent on synergy between innovation technology, readiness source Power humans, as well as supportive policies digital inclusion. Participation active public become indicator important success, but Still special strategy is needed For bridge gap access and quality services throughout the region, especially in the areas islands and hinterland.

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