

A Symphony of Digital Public Service Innovation in Indonesia: Evidence from Indonesia Public Service Innovation Competition 2014-2022

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ABSTRACT

Investigating digital public service innovation in Indonesia is essential for improving practical applications and developing a unified theoretical understanding of digital innovation in the public sector. This research is particularly relevant in the global conversation about digital progress in both developed and developing nations. Indonesia's situation is uniquely instructive for several reasons: At the macro level, despite ambitions to become a digital economy, Indonesia faces the challenge of low internet penetration. At the mezzo level, governmental goals to digitize public services are hindered by unclear integration strategies within bureaucratic systems, revealing a gap between policy and execution. At the micro level, the need for digital literacy in the public sector is evident, but Indonesian civil servants currently fall short of the required standards, highlighting an urgent need for skill development. This study is crucial not only for enhancing local practices but also for contributing to a broader understanding of digital transformation in the public sector across different stages of national development. The research methodically reviews and maps digital public service innovation within the Indonesian context, employing a best practices approach and using the PRISMA flowchart for content analysis. Data was sourced from the Kemenpan-RB (Ministry of State Apparatus Utilization and Bureaucratic Reform) database on the Public Service Innovation Competition (KIPP) from 2014-2022. This database is a primary source of information on Indonesian Public Service Innovation and is noted for its reliability. The findings reveal a diverse range of strategies that balance interactivity with information delivery, internal efficiency with external engagement, and collaboration with self-reliance, providing a comprehensive view of the current state and potential future of digital public service innovation in Indonesia.

Keywords: Public service innovation; digital public service innovation; best practices; Indonesia

ABSTRAK

Penelitian tentang inovasi pelayanan publik digital di Indonesia sangat penting untuk meningkatkan aplikasi praktis dan mengembangkan kerangka teoritis

yang terpadu dalam inovasi digital di sektor publik. Topik ini sangat relevan dalam diskusi global tentang kemajuan digital di negara-negara maju dan berkembang. Situasi Indonesia sangat instruktif karena beberapa alasan: Di tingkat makro, meskipun ada ambisi untuk menjadi ekonomi digital, Indonesia menghadapi tantangan rendahnya penetrasi internet. Di tingkat meso, tujuan pemerintah untuk mendigitalisasi pelayanan publik terhambat oleh strategi integrasi yang tidak jelas dalam sistem birokrasi, menunjukkan kesenjangan antara kebijakan dan eksekusi. Di tingkat mikro, kebutuhan akan literasi digital di sektor publik jelas, tetapi tingkat literasi digital di kalangan pegawainegeri sipil Indonesia saat ini masih di bawah standar, menyoroti kebutuhan mendesak untuk pengembangan keterampilan. Studi ini penting tidak hanya untuk meningkatkan praktik lokal tetapi juga untuk memberikan kontribusi pada pemahaman yang lebih luas tentang transformasi digital di sektor publik di berbagai tahap perkembangan nasional. Metode penelitian ini secara sistematis mengulas dan memetakan inovasi pelayanan publik digital dalam konteks Indonesia, menggunakan pendekatan best practice dan menggabungkan diagram alir PRISMA untuk analisis konten. Data diperoleh dari basis data Kemenpan-RB tentang Kompetisi Inovasi Pelayanan Publik (KIPP) dari tahun 2014-2022. Basis data ini merupakan sumber informasi utama tentang Inovasi Pelayanan Publik Indonesia. Temuan mengungkapkan berbagai strategi yang menyeimbangkan interaktivitas dengan penyampaian informasi, efisiensi internal dengan keterlibatan eksternal, serta kolaborasi dengan kemandirian, memberikan gambaran yang komprehensif tentang keadaan saat ini dan potensi masa depan inovasi pelayanan publik digital di Indonesia.

Kata Kunci: Inovasi Pelayanan Publik, Inovasi Pelayanan Publik Digital, Praktek terbaik, Indonesia

INTRODUCTION

The typology of public service innovation invariably prompts subsequent inquiries, namely: How does one discern the inherent relevance of innovation? What are the consequential impacts, and how might one cultivate innovation contingent upon specific typologies? From this perspective, it becomes imperative to discern the typology's intimate relationship with performance. A salient query arises: Which variant of public service innovation catalyzes the most optimal output and resultant outcomes? According to those questions some researches already answered but the focus of largely rely on business sector and internal orientation ([Chen et al., 2019](#)). There is a need to craft a contextualization of public service innovation typology in diverse arena.

In shed of recent global challenges, notably disruptive phenomena and pandemics, bureaucracies face compounded predicaments. To respond adeptly to societal imperatives, there is a

marked shift towards harnessing digital tools and effectuating transformative measures to enhance the efficacy, cost-efficiency, and promptness of public services ([J. C. Bertot et al., 2016](#)). The digital domain of public service has catalyzed a paradigm shift from conventional methodologies to contemporary ones, leveraging digital platforms. This encompasses both hardware and software, ranging from websites to applications, and encapsulates a spectrum of design approaches — from static to dynamic, and interactive designs in digital public service delivery ([J. Bertot, 2016](#)). Such a transformative shift offers manifold benefits, including enhanced fulfillment of public services to citizens, augmented public satisfaction, and bolstered trust in governmental institutions ([Barrett et al., 2015](#); [Lynn et al., 2022](#); [Millard, 2013](#); [Misuraca & Viscusi, 2014](#)). In the same progression digital public service innovation relate to change of society that much depend of digital technology, at the same way it is also present that if government want to reform, it must follow digital transformation that helps people in the most efficient and effective way by creating and exploiting numerous digital tools. Concurrently, in the ever-evolving landscape, bureaucracies must exhibit agility and competitiveness to optimize efficiency and effectiveness. Confronted with both internal challenges and external pressures, bureaucratic systems perpetually strategize, implement, and endeavor to sustain innovations in digital public service ([Gil-Garcia et al., 2018](#); [Kaletka & Pelka, 2015](#)).

The integration of digital technology in public service delivery is a pivotal trend globally, significantly impacting how governments interact with citizens and manage services. In Indonesia, this shift is not just a technological update but a strategic imperative, aligning with global digital trends and addressing local challenges ([Lurong, 2023](#)). This paper explores digital public service innovation in Indonesia context. Indonesia's vision to become a digital economy is ambitious, yet it faces the challenge of slow and unequal internet penetration, a significant barrier to the widespread adoption of digital services ([Amanta, 2022](#); [Azali,](#)

[2017; Bachtiar et al., 2020](#)). This macro-level issue highlights the need for equitable access to digital services across diverse Indonesian regions. At the mezzo level, the Indonesian government's digitalization goals for public services are clear in its policies such as *Sistem Pemerintahan Berbasis Elektronik* (SPBE) launched in 2018 and GovTech initiation in 2023. However, the actual integration of digital technologies within bureaucratic systems is less straightforward, indicating a gap between policy and practical implementation ([Liew, 2022](#)). In the 2022 assessment of the United Nations E-Government Development Index (EGDI), Indonesia's e-government infrastructure was ranked 77th globally. This position places it below several other Southeast Asian nations in terms of e-government development. Notably, Brunei Darussalam, Thailand, Malaysia, and Singapore demonstrated more advanced e-government systems, with respective global rankings of 68, 55, 53, and 12 ([United Nations, 2022](#)). The micro-level analysis reveals a gap in digital literacy among Indonesian civil servants, underscoring the need for enhanced digital competencies in the public sector ([Cahyarini & Samsara, 2021](#)). It is revealing that a review of public sector practices by the OECD and the Asian Development Bank (ADB) records that the Indonesian government does not mention digital competency in its civil service competency framework ([OECD & Asian Development Bank, 2019](#)). This deficiency calls for comprehensive digital literacy programs and capacity-building initiatives.

In detail, this research endeavors to systematically review and map the digital public service innovation, contextualizing the findings within the Indonesian milieu. The findings aim to contribute to the broader conversation on digital transformation in the public sector, particularly in developing countries by exploring the Indonesian experience, this research seeks to offer insights into effective digital public service strategies.

LITERATURE REVIEW AND RESEARCH FOCUS

Digital public service innovation, particularly through e-gov-

ernment, represents a significant shift in how public services are delivered. E-government is fundamentally defined as the application of Information and Communication Technologies (ICT) in public administration to innovate in information dissemination and public service provision ([Heeks & Bailur, 2007](#)). This review explores the digital innovation in the public sector, differentiating it from private sector innovation ([Osborne & Brown, 2005](#)), and examines the implementation, types, and impacts of these innovations.

The implementation of digital public service innovation is deeply intertwined with the adoption of ICT. [Gil-García & Pardo \(2005\)](#) emphasize the transformative role of ICT in public administration, while [Norris & Reddick \(2013\)](#) discuss the challenges encountered, such as addressing the digital divide, ensuring data security, and managing organizational changes. These challenges highlight the complexity of implementing e-government initiatives and underscore the need for strategic planning and adaptability. Digital public service innovations can be broadly categorized based on their functionality and target audience. [West \(2004\)](#) distinguishes between static and interactive services, noting that interactive e-government services offer greater engagement and responsiveness. [Welch \(2004\)](#) differentiate between innovations aimed at internal administrative efficiency and those designed for external citizen engagement. Additionally, [Dawes \(1996\)](#) contrasts independent initiatives with cooperative, multi-agency approaches, suggesting that cooperative models can enhance resource sharing and holistic service delivery.

The impact of digital innovations in public services is multifaceted. [Moon \(2002\)](#) assesses how these innovations have revolutionized service delivery and improved operational efficiency. Furthermore, [Thomas \(2003\)](#) investigates the effects on citizen engagement and satisfaction, indicating that digital public services can enhance transparency and citizen trust. These findings are crucial for understanding the broader implications of digital innovations in public administration.

looking forward, the landscape of digital public service innovation is rapidly evolving with the advent of new technologies. [Meijer & Bolívar \(2016\)](#) highlight emerging trends such as artificial intelligence, blockchain, and big data in e-government. [Bannister & Connolly \(2015\)](#) discuss the future challenges and opportunities, emphasizing the need for ongoing innovation and adaptation to emerging technologies and societal needs.

Digital public service innovation, through e-government, represents a significant paradigm shift in public administration. This review has explored various aspects of this innovation, from its definition and implementation to its impact on service delivery and citizen engagement. While significant progress has been made, there remain challenges and opportunities for future research, particularly in the context of rapidly evolving technological landscapes.

RESEARCH METHOD

This study utilizes a best practices approach (Bretschneider, 2004) along with systemic review using the PRISMA flowchart in conjunction with content analysis. The researchers employed best practices approach because the data crawled from the report of the winner of competition held by Kemenpan-RB (Ministry of State Apparatus Utilization and Bureaucratic Reform), it means that the winner is best practices on scope and the scope at this research is digital public service. Data was sourced from the Kemenpan-RB database on the Public Service Innovation Competition (KIPP) spanning the years 2014-2022 (<https://sinovik.menpan.go.id/>). This database stands as the singular authoritative repository on Indonesian Public Service Innovation, boasting commendable reliability.

The researcher employed PRISMA flowchart to select the appropriate document (figure 1). First, identified all report from KIPP range years 2014-2022 and found 2.178 innovation. Second, screened based on title and description which classify the innovation matches with digital innovation or not. As this re-

search focus on digital public service innovation, we use the simple definition of digital innovation in public sector as the same as e-government implementation ([Attour & Chaupain-Guillot, 2020](#)). E-government is defined as the process of implementation, diffusion and use in public administration of Information and Communication Technologies (ICT) to achieve innovative forms of information and public services provision ([OECD, 2003](#)). In summary we define digital public service innovation as an implementation of e-government in public service, the implementation ranging from website, application, and the other tools of e-government. Third, researchers excluded 1.881 innovation that is does not match with the definition of digital public service innovation, at least record included for next review using content analysis is 297.

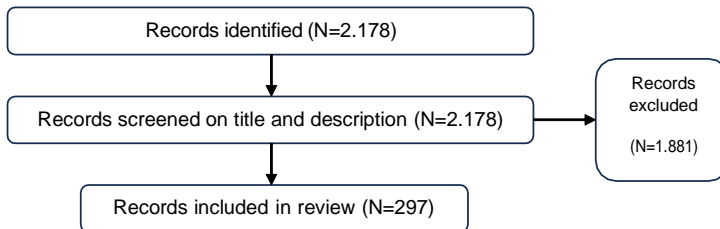


Figure 1. The Selection Process

Researcher employed content analysis for 297 document using coding scheme (Table 1). First, the coding scheme classify the government level, which digital public service innovation produce in certain government level such as central government or province government or municipal government or regency government. Second, the coding scheme classify the digital public service innovation type, which type of digital public service innovation produced by the government such as static or interactive and internal or external and cooperation or independent. An example of an analysis on these four classifications can be seen in table 2.

Table 1. Coding Scheme

Government Level	Digital Public Service Innovation Type					
Central/Province/ Municipal/Regency	Static	Interactive	Internal	External	Cooperation	Independent
Number of digital innovations produced by the Government (Specify names of central/provincial/regency/municipal governments)	Number of digital innovations that utilize and implement information technology with one-way mechanisms without interaction between providers and users	Number of digital innovations that use and implement information technology with a two-way mechanism involving interaction between providers and users.	Number of digital innovations for internal organizational purposes	Number of digital innovations for public benefit.	Number of digital innovations created and implemented in collaboration with other organizations.	Number of digital innovations created and implemented independently without involving other organizations.

Table 2. Coding Vignete from KIPP 2014

No	Innovation	Central Government	Static	Interactive	Internal	External	Cooperation	Independent
1	Sistem Informasi Layanan Permohonan Informasi Publik (SILAYAN) Online	1	0	1	0	0	1	0
2	Rumah Belajar (belajar.kemdikbud.go.id)	1	0	1	0	0	1	0
3	Peningkatan Kapasitas Kinerja Aparatur melalui Aplikasi e-Kinerja	0	0	0	1	0	1	1

RESULT AND DISCUSSION

The exploration of digital public service innovation within government settings reveals a complex landscape characterized by diverse strategies across different government levels. The findings below highlight the importance of interactive initiatives for enhancing citizen engagement and the strategic balance between internal improvements and external stakeholder engagement. It also notes the coexistence of collaborative and independent innovation efforts, suggesting that both approaches contribute to the public sector's ability to innovate. The findings elucidate that the capacities of governmental bodies to foster innovation are contingent upon distinct situational factors and exhibit a multi-dimensional character. This is exemplified through an analytical discourse on the distribution, landscape, and symphony of digital public service innovation, underscoring the complexity and heterogeneity inherent in governmental innovation processes.

The distribution of digital public service innovation refers to the spread and implementation of new and improved digital technologies, methodologies, and practices within public sector services. This encompasses a wide range of activities, from the digitization of records and processes to the use of data analytics, artificial intelligence, and online platforms to improve service delivery. The goal is often to increase efficiency, transparency, accessibility, and responsiveness of public services to meet the evolving needs of citizens and communities.

THE DISTRIBUTION OF DIGITAL PUBLIC SERVICE INNOVATION

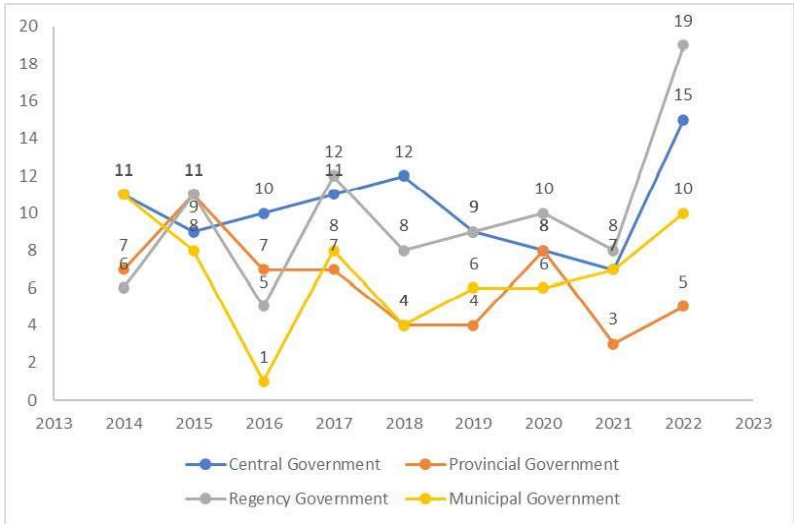


Figure 2. The Distribution of Digital Public Service Innovation Based on Government Type
Source: Data Analysis, 2023

The figure 2 provides a comprehensive insight into the landscape of digital public service innovation, categorized by different levels of government, spanning the years 2014 to 2022. Throughout this period, the municipal governments contributed to the evolution of digital services. In the initial years, 2014 to 2016, a relatively balanced distribution of innovation was evident. The Central government consistently led in innovations, with counts ranging from 9 to 12 across various years. Provincial and Regency governments followed suit, actively engaging with innovation counts in the range of 4 to 11. The Municipal government showcased variable involvement, ranging from 1 innovation in 2016 to 11 in 2014. As the years progressed, notable shifts emerged. Regency governments demonstrated a remarkable surge in innovations, particularly in 2022 with a count of 19. Central government innova-

tions remained relatively consistent, with fluctuations around 10 to 15. Provincial government contributions varied more noticeably, ranging from 3 to 11. Meanwhile, the Municipal government maintained a presence, with innovations varying from 1 to 11. Cumulatively, over the entire period, Regency governments accounted for a substantial total of 88 innovations, underscoring their growing role in local digital service advancements. The Central government's cumulative count was 92, showcasing consistent nationwide efforts. Provincial and Municipal governments presented cumulative counts of 56 and 61, respectively, indicating their varying degrees of engagement.

The distribution of digital public service innovation across government tiers is not solely defined by innovation counts. Instead, it reflects the diverse capacities of each level to harness digital technology. Central governments leverage their national reach and resources to drive consistent innovation. Provinces engage variably based on regional capacities and priorities. Regencies tap into local knowledge, while municipalities navigate innovation with often limited resources. Understanding this distribution provides a foundation for tailored strategies to bolster digital capacities across the spectrum of government levels, ultimately advancing the nation's journey toward digital transformation. This analysis offers an in-depth exploration of how various levels of government engage with digital innovation, highlighting their distinct capacities and contributions to digital transformation efforts. These findings underscore the imperative for governmental entities at all levels to actively participate in digital transformation efforts by leveraging emergent technologies to address societal needs ([Bannister & Connolly, 2015](#); [Meijer & Bolívar, 2016](#); [Thomas, 2003](#)).

THE LANDSCAPE OF DIGITAL PUBLIC SERVICE INNOVATION: INTERACTION, FOCUS AND GOVERNANCE

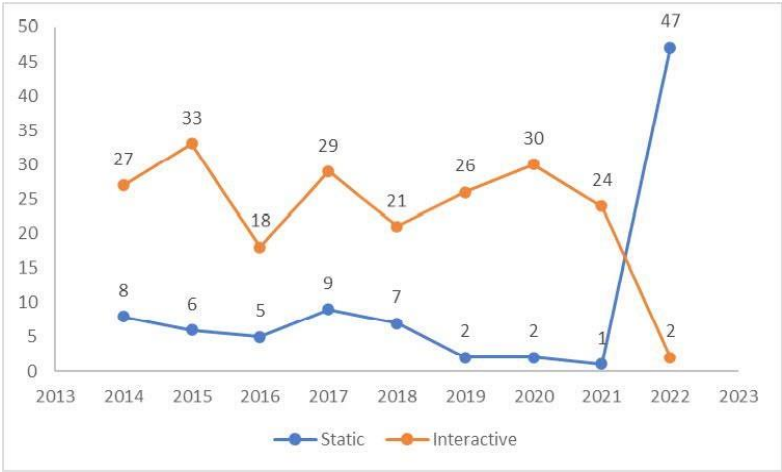


Figure 3. User Interaction in Digital Public Service Innovation
Source: Data Analysis, 2023

The figure 3 provides a comprehensive breakdown of digital initiatives categorized as “Static” and “Interactive” across multiple years, allowing for a nuanced analysis of how different types of initiatives have evolved over time.

Static Initiatives: The table reveals that “Static” digital initiatives, characterized by their one-way, non-interactive nature, exhibit a distinct pattern of distribution. Over the nine-year period from 2014 to 2022, the distribution of static initiatives varies from as low as 1 in 2021 to a substantial spike of 47 in 2022. This surge in 2022 indicates a significant shift toward these uni-directional initiatives, which are often used for disseminating information without active user engagement. The cumulative total of 87 static initiatives across the entire period underscores their enduring presence despite the fluctuations observed year by year.

Interactive Initiatives: On the other hand, “Interactive” digital initiatives, designed to engage users in two-way interactions, present a different narrative. The distribution of interactive initiatives showcases a relatively stable trajectory, with counts rang-

ing from 18 to 33 throughout the years. The highest count of 33 in 2015 indicates a strong emphasis on fostering user engagement. Despite slight fluctuations, the interactive initiatives maintain a consistent and relatively high presence across the years. The cumulative total of 210 interactive initiatives underscores their sustained importance in facilitating dynamic user experiences and participatory engagement.

The figure 3 captures specific dynamics within each year. For instance, 2014 saw 8 static and 27 interactive initiatives, establishing a notable emphasis on interactive engagement from the outset. Subsequent years display similar patterns, with varying degrees of focus on each initiative type. An interesting anomaly arises in 2020, where both static and interactive initiatives are nearly equal in count, potentially reflecting a strategic balance between information dissemination and user engagement during a particular period. Over the entire period, a cumulative view emerges. The total count of 297 initiatives underlines a concerted effort toward digitalization, aligning with the global trend toward embracing technology for public service enhancements. The distribution between static and interactive initiatives reflects a deliberate blend of approaches, indicating a strategic intent to cater to different user preferences and requirements.

In summary, the figure 3 provides a rich dataset for understanding the distribution of digital initiatives categorized by their static and interactive nature. The dynamic shifts observed from year to year highlight the adaptable nature of digital strategy, while the cumulative totals underscore the overarching commitment to leveraging digital technology for enhancing public services. This comprehensive analysis examines the distribution of static and interactive digital initiatives over multiple years, offering insights into the evolving strategies and priorities for digital transformation.

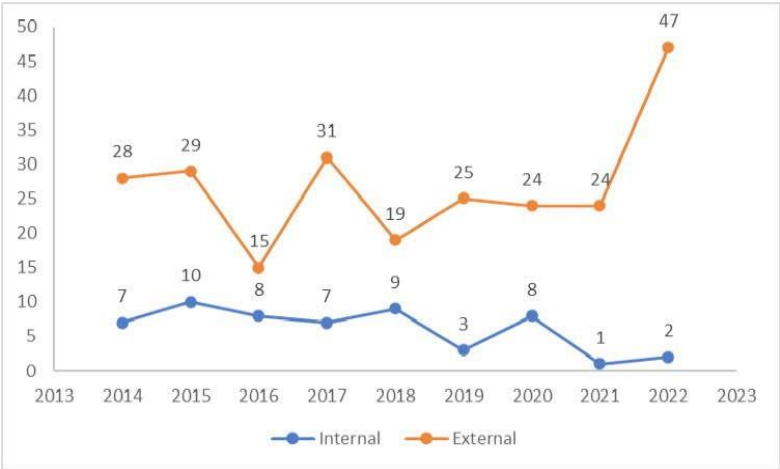


Figure 4. The Focus of Digital Public Service Innovation
Source: Data Analysis, 2023

The figure 4 is presents a comprehensive view of the distribution of initiatives categorized as “Internal” and “External” across different years, providing valuable insights into the strategic focus and evolution of digital initiatives.

Internal Initiatives: The table reveals the distribution of “Internal” initiatives, which are likely focused on streamlining and enhancing internal operations within the organization. The annual counts vary, with the lowest being 1 in 2021 and the highest reaching 10 in 2015. This variability could reflect fluctuations in administrative priorities and resource allocation. Cumulatively, the total of 55 “Internal” initiatives over the entire period highlights a consistent commitment to optimizing internal processes through digital technology.

External Initiatives: On the other hand, the table presents the distribution of “External” initiatives, indicating efforts directed towards enhancing interactions with external stakeholders, including citizens, businesses, and partners. The distribution of these initiatives showcases intriguing dynamics. While external initiatives experienced fluctuations, they maintained a notable presence, with a peak of 47 in 2022, suggesting an intensified focus on engaging external stakeholders. The cumulative total of 242 “External” initiatives underscores

the significance of fostering meaningful interactions beyond organizational boundaries.

Examining individual years, 2015 stands out with both high counts of internal (10) and external (29) initiatives. This could suggest a concerted effort to balance internal process improvements with engaging external stakeholders. In 2022, a substantial surge in external initiatives suggests a strategic shift toward prioritizing interactions with external audiences. The variations in counts from year to year illustrate the organizations adaptability and responsiveness to evolving circumstances. The figure 4 provides a broader context by showcasing the cumulative totals. The combined effort of 297 initiatives across the nine-year period highlights a comprehensive approach to digital transformation. The balance between internal and external initiatives underscores a holistic strategy that addresses both operational efficiency and stakeholder engagement.

In summary, the figure 5 offers a comprehensive analysis of the distribution of initiatives categorized by their internal and external focus. The yearly dynamics demonstrate an organization's capacity to adjust its digital strategy based on changing needs, while the cumulative counts underscore a commitment to leveraging digital technology for enhancing both internal operations and external interactions. This thorough analysis captures the strategic implications of the distribution of internal and external initiatives over multiple years, offering insights into how organizations navigate the complexities of digital transformation while addressing both internal and external priorities.

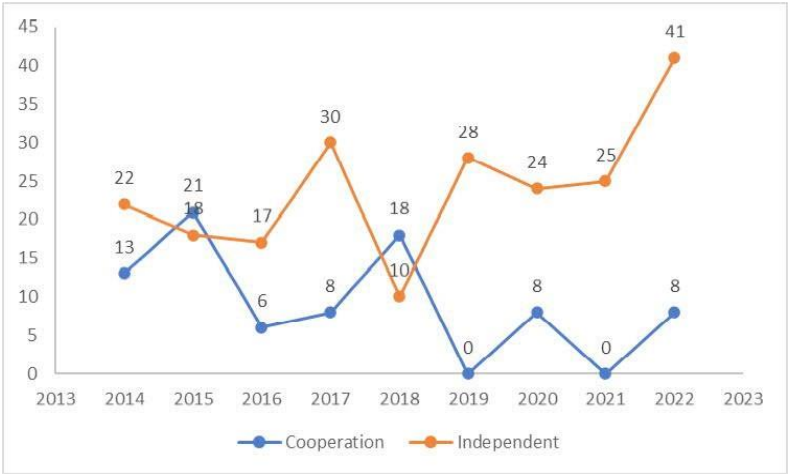


Figure 5. Governance of Digital Public Service Innovation
Source: Data Analysis, 2023

The Figure 5 provides valuable insights into the distribution of initiatives categorized as “Cooperation” and “Independent” across different years, reflecting the strategic approach and evolution of collaborative efforts.

Cooperation Initiatives: The table illustrates the distribution of “Cooperation” initiatives, indicating collaborative efforts with external partners, stakeholders, or other entities. The yearly counts vary, with the highest count being 21 in 2015, suggesting a strategic emphasis on collaboration during that period. Cumulatively, the total of 82 “Cooperation” initiatives underscores an organization’s commitment to forging external partnerships and leveraging collective expertise for digital transformation.

Independent Initiatives: On the other hand, the table presents the distribution of “Independent” initiatives, reflecting self-driven efforts that do not rely on external partnerships. The counts exhibit a varied pattern, ranging from 10 to 41. Notably, 2015 and 2022 emerge as years with a more pronounced focus on independent initiatives, potentially indicating a strategic preference for internal innovation. The cumulative total of 215 “Independent” initiatives reflect an organization’s self-reliance in driving digital initiatives.

A closer examination of individual years reveals nuanced strategies. For example, 2015 displayed a concerted push for both cooperative and independent initiatives, indicating a holistic approach that combined external collaboration with internal innovation. In 2022, there was a notable surge in independent initiatives, possibly reflecting a shift towards leveraging internal expertise to drive digital advancements. These shifts underline the organization's ability to adapt its strategies based on evolving priorities. The figure 5 cumulative perspective highlights the broader strategy. The combined total of 297 initiatives over nine years signifies a comprehensive commitment to digital transformation. The balance between cooperative and independent initiatives underscores an adaptive approach that combines collaborative external efforts with internally-driven innovations.

In summary, the result offers a comprehensive analysis of the distribution of initiatives categorized by their cooperative and independent nature. The yearly dynamics showcase an organization's strategic flexibility, while the cumulative counts underscore a commitment to harnessing collaboration and internal innovation for effective digital transformation. This comprehensive analysis captures the strategic implications of the distribution of cooperative and independent initiatives over multiple years, revealing how organizations navigate the complexities of digital transformation through partnerships and self-driven efforts.

The preceding three findings suggest that embracing interactive services, maintaining an external focus, and fostering cooperative innovation can yield enhanced performance outcomes ([Dawes, 1996](#); [Welch, 2004](#); [West, 2004](#)). Across governmental tiers, a shared landscape emerges wherein public service innovation is predicated on interactive engagement with citizens, heightened attention to citizen-centric approaches, and collaboration with external organizations and citizens alike. This unified landscape portends a promising trajectory for the evolution of digital public service innovation within Indonesia, promising a more

robust and effective frameworks for meeting the needs of its populace.

A SYMPHONY OF STRATEGIES IN DIGITAL PUBLIC SERVICE INNOVATION

The exploration of digital public service innovation within government settings has unearthed a complex and multifaceted landscape. This analysis traversed diverse dimensions – government types, interactivity, internal/external orientation, and collaboration vs. independence – revealing insightful nuances about innovation capacity and typology.

The result shown a panorama where different levels of government showcased distinct innovation strategies. Central governments emerged as steadfast drivers of nationwide digital initiatives, leveraging their resources and influence, echoing the findings of [Mergel et al., \(2019a\)](#) who noted the pivotal role of central governments in spearheading digital transformation. Provinces displayed variations in innovation counts, influenced by regional capacities and priorities, aligning with the observations of [Paas & Vahi \(2012\)](#) regarding the regional disparities in innovation capabilities. Regency governments, rooted in local contexts, took on the mantle of localized innovation champions, while Municipal governments demonstrated resilience despite varying capacities, resonating with the insights of [Gil-Garcia et al., \(2018\)](#) on the importance of local context in shaping digital innovation.

Collectively, these findings emphasize that innovation thrives across diverse government echelons, each adapting strategies to its unique role and strengths, as suggested by [Anthopoulos et al., \(2016\)](#). The dichotomy between interactive and static initiatives delineated the strategic intent to balance information delivery with dynamic engagement. Interactive initiatives, fostering two-way interactions, underlined a commitment to citizen involvement, potentially leading to more effective and responsive public services, as highlighted by [Tomor et al., \(2019\)](#) In contrast,

static initiatives serve as information dissemination tools, a point underscored by [Linders \(2012\)](#) in their discussion on the varying approaches to digital public service delivery.

The distribution between internal and external initiatives elucidated an intricate approach to innovation strategy. Fluctuations in distribution indicated an organization's adeptness at aligning internal process improvements with external stakeholder engagement, a balance noted by [Bommert \(2010\)](#) in their study on organizational innovation strategies. This adaptability underscores an awareness of the symbiotic relationship between internal efficiency and external satisfaction, as discussed by [Van Ryzin & Charbonneau \(2010\)](#).

The contrast between cooperation and independent initiatives unveiled a strategic spectrum where external partnerships and autonomous innovation coexist. Collaborative initiatives capitalize on external expertise, while independent efforts rely on internal capabilities, reflecting the findings of [Torfing \(2019\)](#) on the benefits of collaborative innovation. The surge in independent initiatives during specific years indicated a deliberate emphasis on internal creativity, aligning with the observations of [Sørensen \(2011\)](#) on the rise of in-house innovation in public sector organizations.

The impact and performance of digital public service innovation could be typified based on the data. While comprehensive analysis of impact requires more context, the result offer a preliminary view. Initiatives with higher interactivity and external focus could yield greater public engagement and satisfaction, as suggested by [Mergel et al., \(2019b\)](#). Collaborative initiatives might produce a broader reach and shared expertise, while independent efforts could highlight organizational ingenuity, a point made by [Hartley \(2005\)](#) in their analysis of public sector innovation.

When paired with impact assessment, these typologies could offer insights into how different strategies contribute to overarching goals. The findings underscore that government ca-

capacity to innovate is contextual and multidimensional, as argued by [Osborne & Brown \(2005\)](#). Capacity is not solely defined by resource allocation; it is an intricate interplay of governance structures, regional dynamics, and strategic agility. Innovation capacity does not favor one government level over another; instead, it is about leveraging unique strengths to drive meaningful change, a perspective shared by [Albury \(2005\)](#) in their discussion on public sector innovation.

CONCLUSION

The journey through digital public service innovation in government, as revealed by the analysis, unveils a symphony of strategies a balance between interactivity and information delivery, internal efficiency and external engagement, collaboration, and self-reliance. The innovative landscape is not uniform; it adapts, evolves, and thrives across government tiers. This analysis enriches our understanding of how capacity to innovate intertwines with innovation typologies and their resultant impact. Ultimately, it is a holistic orchestration that empowers governments to navigate digital transformation, unlocking new avenues of service excellence and citizen empowerment.

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