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DRIVING TRANSFORMING E-GOVERNANCE: THE INNOVATION NEXUS FROM INDONESIA AND VIETNAM

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ABSTRACT

Driving transformation for e-governance becomes a role to play in assisting the government's public-sector initiative. The reason for this is that e-governance must be inclusive. Our reason for this attempt is to examine the nexus of innovation that Indonesia and Vietnam have actualized. Both countries have advanced digital infrastructure in recent years, yet progress in human capital development, especially digital skills, has not kept pace. Based on this, we explore e-governance through public-private sector engagement, stress the growing gap between technological progress and citizens' digital skills, and examine trends in digital infrastructure development, using secondary data from published surveys. The findings note that e-governance has made great strides, but human capital development is still lagging, with slower growth in digital skills. The implications of this essay underline the critical role of entities' engagement in advancing e-governance and call for greater investment in digital literacy to enable all citizens to recognize the essence of digital transformation and ensure inclusive and sustainable progress.

A. INTRODUCTION

The majority of digital technologies, administrative reform, and cross-sector collaboration have increasingly accelerated the transformation of contemporary governance. As governments navigate a landscape characterized by rapidly shifting societal expectations, technological disruption, and complex policy challenges, the interface between public institutions and private actors has become a central determinant of effective governance. This notion, also assisted by scholars, argues that this evolving interplay is reshaping not only bureaucratic systems but also the fundamental social contract between governments and citizens (Clarke, 2020; Janowski, Estevez, & Baguma, 2018; Kuusisto, 2017). Within this context, e-government (e-gov) platforms represent more than digital tools; they embody a structural reconfiguration of governance through innovation, where technology and institutions work jointly to enhance transparency, efficiency, and citizen-centric service delivery (Lindgren, Madsen, Hofmann, & Melin, 2019; Roblek, Bach, Mesko, & Bertoncel, 2020).

In addition, the connection reveals that Innovation has emerged as a cornerstone of this transformation. For instance, public sector innovation, as articulated by Osborne & Brown (2011); Osborne, Powell, Cui, & Strokosch (2022), encompasses the introduction of new ideas, governance

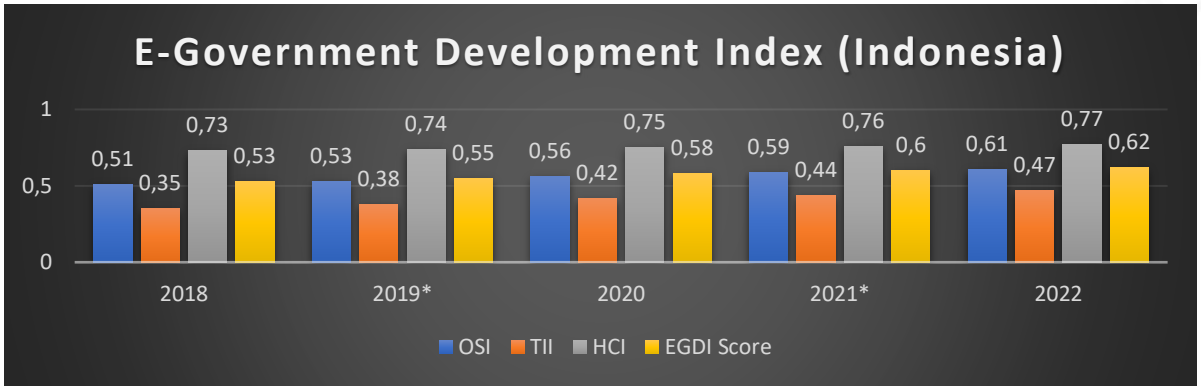
models, processes, or technologies that fundamentally improve administrative functions or public services. This broadened conception situates innovation not merely as technological advancement but as a multifaceted reimagining of how governments operate, interact, and create public value. Such innovation is increasingly imperative due to globalizing policy demands, demographic pressures, and citizens' rising expectations for accessible, responsive services (Anshari & Hamdan, 2023). Notably, the digital era has heightened these expectations, making technological integration and service modernization essential rather than optional.

Moreover, understanding public sector innovation requires acknowledging its diverse drivers, which reveal two underlying bases. Internally, an organization's culture, leadership structures, and willingness to embrace change shape its ability to innovate (Natário & Couto, 2021). Then, the leaders in particular play a decisive role by cultivating environments that promote experimentation, risk-taking, and iterative learning conditions widely recognized as prerequisites for innovation in public administration. Externally, societal needs, political pressures, and global governance standards compel governments to adopt more agile, technology-enabled approaches to service delivery (Criado, Alcaide-Muñoz, & Liarte, 2023). These pressures have intensified as citizens increasingly expect digital accessibility, real-time services, and participatory decision-making frameworks. The intersection of these internal and external drivers underscores that innovation in the public sector is not merely a choice but a structural necessity.

In line with these developments, innovation within the private sector has long been established as a source of competitive advantage, economic growth, and organizational evolution. Private firms innovate to meet consumer demands, differentiate their offerings, and maintain relevance in an environment shaped by digitalization, automation, and artificial intelligence (Oliveira, Sousa, Silva, & Santos, 2021; Svetlana, Anna, Svetlana, Tatiana, & Olga, 2022). In this context, innovation may be incremental, lifting existing products and services, or disruptive, fundamentally altering markets and business models (Evan & Holý, 2021). Market competition, technological breakthroughs, and customer expectations operate as powerful motivators, pushing firms to continuously improve quality, efficiency, and user experience (Häggmark & Elofsson, 2022; Sheth et al., 2023).

Nevertheless, private-sector innovation increasingly emphasizes models such as open innovation and collaborative development, which encourage partnerships with governments and other institutions to enhance problem-solving and mutual value creation. It is at this juncture that the relationship between e-government and innovation becomes most pronounced. E-governance frameworks are often grounded in public-private collaboration, leveraging private-sector capabilities to enhance public-sector performance. Such partnerships combine the public sector's regulatory and accountability mandates with the private sector's technical expertise, efficiency, and innovation capacity (Sekwat & Tacuara, 2024). This collaboration is especially critical in digital infrastructure, where governments face resource constraints while private firms possess specialized knowledge and agile development models. Through e-government initiatives, governments can deploy advanced technologies, such as digital platforms, data analytics systems, and AI-enabled services, to modernize administrative functions and create more accessible, responsive, and integrated public services (Çakmak & Gediz Oral, 2023). Yet, the transformative potential of e-government is not solely technological; it is also organizational and relational. As governments adopt private sector technologies, they simultaneously import innovation practices, data-driven decision-making techniques, and agile governance models that reshape internal structures. Public-private collaboration in technology transfer accelerates this process, enabling governments to incorporate cutting-edge digital tools into core operations while strengthening transparency and citizen engagement through open data mechanisms (Park & Gil-Garcia, 2022; Sissodia, Rauthan, Barthwal, & Dwivedi, 2024). But these benefits come with challenges. Increased reliance on private technology providers raises concerns around data privacy, surveillance, algorithmic bias, and unequal digital access issues that must be addressed to maintain public trust and uphold equity (Androutsopoulou, Askounis, Carayannis, & Zotas, 2024).

Next, we investigate the digitalization index between Indonesia and Vietnam country as an analysis material for whether the public and private sectors are correlated in driving transformation in both the public and private sectors within the framework of digitalization; the following data is obtained from Indonesia country:

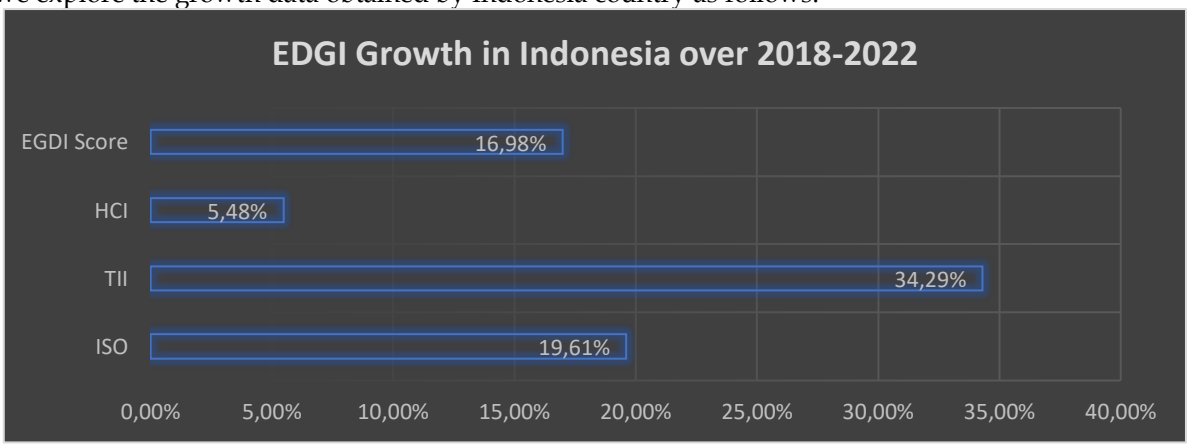


Source: Author(s) calculation based on United Nation E-Government Survey, 2025.
Figure 1. E-Government Development Index (Indonesia)

Before diving into the analysis, we provide the terms of the description, namely OSI (Online Service Index), TII (Telecommunication Infrastructure Index), HCI (Human Capital Index), and EGDI (E-Government Development Index). First, we observe an increase in all indicators (e.g., OSI, TII, HCI, and EGDI), showing a stable trend from 2018 to 2022. Here, OSI and EGDI illustrate a gradual increase that justifies progress in the aspects of openness of society and digitalization of government.

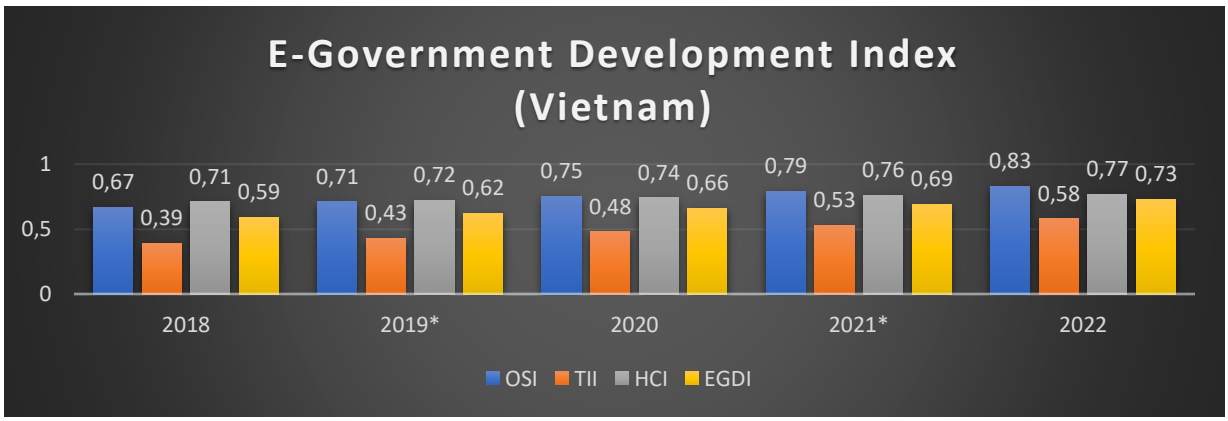
Meanwhile, TII shows significant growth, which is most likely correlated with the rapid development of technological infrastructure and also triggered by critical needs during the pandemic. Then, HCI, although indicated to increase, shows more moderate growth, which indicates that human resource development may take a little longer to develop significantly compared to technology or digitalization of government.

From these results, we summarize that external factors are canceled out by the Covid-19 pandemic phenomenon, especially in 2020, which most likely plays a role in accelerating the adoption of technology and digitalization in many sectors, both in society and government. It describes part of the spike that occurred in the TII and EGDI indicators during that period. Concurrently, focusing on technology and e-government, our analysis reveals that existing trends allow countries to focus more on strengthening technological infrastructure and digitalization of government, two things that we consider can accelerate social and economic transformation. In short, this data shows that Indonesia has taken positive steps in increasing public openness, access to technology, digitalization of government, and human resource development. Withal, a justification is obtained, namely the difference in the speed of change, which is pertinent to technology, and the digitalization of government, which indicates developing faster than revamping the quality of human resources. Also, we explore the growth data obtained by Indonesia country as follows:



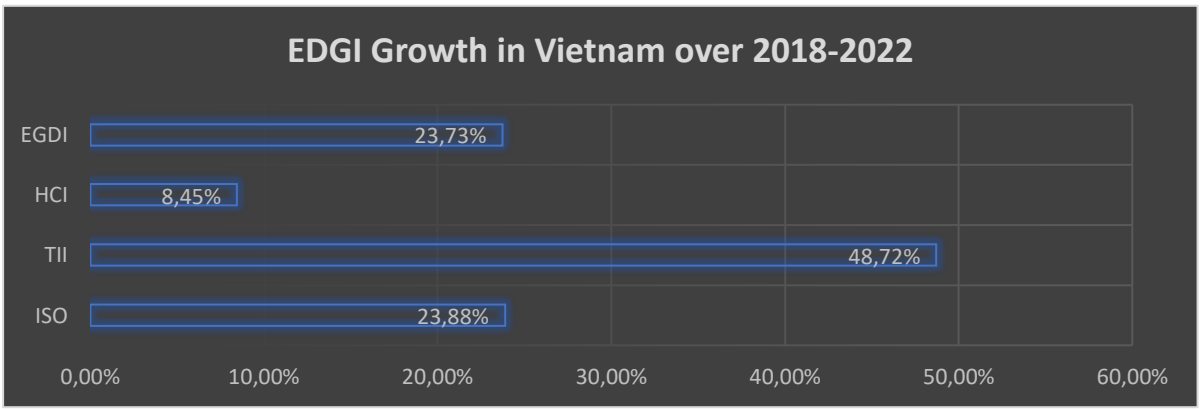
Source: Author(s) calculation based on United Nation E-Government Survey, 2025.
Figure 2. EDGI Growth in Indonesia over 2018-2022

If observed, the growth trend seen in this data shows that the technology and digitalization sectors of government are growing rapidly. TII of (34.29%) and EGDI of (16.98%) experienced a major spike, indicating a stronger technological infrastructure and the increasingly widespread use of e-government; this is based on the Covid-19 pandemic, which accelerated the adoption of technology in many sectors. Simultaneously, OSI (19.61%) and HCI (5.48%) grew more slowly. OSI describes an increase in the aspect of public openness, while HCI shows developments in the aspect of human resources, although the growth rate is more moderate. In conclusion, human resource development does take longer because it covers many aspects, such as education and health. Overall, although technology and government digitalization have progressed rapidly, the barriers to lifting the quality of human resources remain a long-term focus that needs to be addressed. Moving to Vietnam regarding the digitalization index, it can be said that the data is quite significantly positive:



Source: Author(s) calculation based on United Nation E-Government Survey, 2025.
Figure 3. E-Government Development Index (Vietnam)

Based on the overall trend, there is an indication of positive growth in all indicators (e.g., OSI, TII, HCI, and EGDI) between 2018 and 2022, detailing that the TII indicator experienced the fastest growth of 48.72%, which is interpreted as significant progress in technological infrastructure. This basis is very relevant considering the increasing need for digital access during the pandemic. Still, OSI and EGDI also experienced a significant increase of 23.88% and 23.73%, which concluded that there was progress in terms of public openness and government digitalization. Both of these things show that the role of the state is increasingly transparent, and digital practices in running the government are quite credible, which facilitates public access to information and services. For the moment, HCI experienced a slower increase of 8.45%, which shows that improvements in human resources such as education, skills, and health require more time and more investment. In short, despite efforts to make significant progress in technology and government digitalization, human resource development remains a barrier that requires more sustainable action and comprehensive or consistent policy interventions. Moving on, we will explore the growth data obtained by Vietnam country as follows:



Source: Author(s) calculation based on United Nation E-Government Survey, 2025.
Figure 4. EDGI Growth in Vietnam over 2018-2022

Overall trend data shows that TII of 48.72% shows very large growth, illustrating rapid progress in technological infrastructure. It has been greatly influenced by critical initiatives during the pandemic in order to adopt digital technology massively in various sectors, from education to government. Thereupon, the OSI acquisition of 23.88% and EGDI of 23.73% also experienced a significant increase; this illustrates special progress related to aspects of public openness and government digitalization.

These two things are highly correlated, which justifies that the country is increasingly strengthening access to information and transparency and accelerating the adoption of e-government to provide public services more efficiently and responsively. Later, the HCI acquisition of 8.45% shows the slowest growth and presents a greater challenge in transforming human resources.

Based on this, the practice of digitalization does not occur separately; instead, it is formulated by complex interactions between public institutions, private companies, civil society organizations, and citizens themselves (Gil-Garcia, Dawes, & Pardo, 2018). Likewise, despite the promising developments of digitalization, paramount questions remain about the long-term implications of public-private convergence for democratic governance, social justice, and citizen privacy. From this, that enthusiasm for digital governance must be tempered with a critical examination of who benefits, who participates, and who may be excluded from these technological systems (Sharma, Kar, Gupta, Dwivedi, & Janssen, 2022). Finally, this study seeks to investigate, comprehend, and analyze the transformation of e-governance practices between two countries with their initiated platform and were actualized entities in formulating digital governance innovations.

B. METHOD

Our study adopts a qualitative descriptive and content analysis methodology to assess the transformation of e-governance in Indonesia and Vietnam, specifically in the public and private sectors on their platforms, in driving the transformation of governance. This approach explicitly suits the research objectives and emphasizes the detailed exploration of phenomena within a real-world context without manipulating the variables or conditions (Akinyode & Khan, 2018; Creswell & Báez, 2020). Moreover, for the data collection, we gather secondary data from existing documents, reports, and scholarly literature to gain a comprehensive recognition of both countries' initiatives, platforms, and progress in e-governance. It enables a comparative analysis without the need for fieldwork or primary data collection (Dodgson, 2017).

Then, in our analysis model based on the adopted methodology above, we divided it into several stages: The central problem of this study revolves around comprehending how the convergence of technology, public institutions, and private sector involvement is driving governance transformation in Indonesia and Vietnam. Second, the literature on digital governance emphasizes the importance of collaboration between the public and private sectors to enlarge public services' transparency, efficiency, and inclusivity. This issue underlines that inclusivity is essential and particularly pertinent in Indonesia and Vietnam, where disparities in access to technology are evident (Creswell & Poth, 2016).

In the next section, data collection for this study was obtained from secondary sources, primarily the United Nations E-Government Survey, which provides comprehensive data on the E-Government Development Index (EGDI) for both countries between 2018 and 2022. Here, the data collection contains key indicators such as the Online Service Index (OSI), Telecommunication Infrastructure Index (TII), Human Capital Index (HCI), and EGDI. The study also draws on government reports and policy documents from Indonesia and Vietnam, as well as academic literature on e-governance and digitalization.

Fourth, the interpretation stage reveals several key trends in the digitalization process in both countries. In Indonesia, the rapid increase in the TII and EGDI from 2018 to 2022 stresses the significant growth in technological infrastructure and the adoption of e-government services. The spike in TII during the Covid-19 pandemic marks the role of external factors in accelerating digitalization. Fifth, the reports/findings suggest while Indonesia and Vietnam have made significant strides in digital governance, the full potential of e-government remains unfulfilled without simultaneous advancements in human capital. The data reveals that both countries have relied heavily on private-sector technological innovations. Still, they must also address the barriers related to education, digital skills, and public access to technology.

C. RESEARCH FINDING AND DISCUSSION

Technological Infrastructure as a Catalyst for Governance Transformation

In our inspection from 2018 to 2022, we noted advancements in digital infrastructure, especially in Indonesia and Vietnam. Our findings reveal substantial growth in the Telecommunication Infrastructure Index (TII) for both nations, with 34.29% in Indonesia and 48.72% in Vietnam. When assessing Indonesia's digital transformation journey, we found that its TII growth coincided with the concretization of the "Making Indonesia 4.0" roadmap launched in 2018. This initiative prioritized technological enhancement as a cornerstone of the national development strategy. This claim, also reflected in the government's commitment, is evident in the increase in budgetary allocations for broadband expansion, which rose from approximately 1.2% of GDP in 2018 to nearly 2.7% by late 2021.

This connotation shows that internet penetration in regions increased from 47% to 63% during this period. It underlines the narrowing of the digital divide that had previously limited e-governance effectiveness. Our subsequent analysis focuses on Vietnam, whose more progressive TII growth of 48.72% is closely linked to its National Digital Transformation Program, which sets an ambitious target for infrastructure development by 2025. This program, coupled with favorable regulatory reforms and encouraging investment in telecommunications, creates the conditions for rapid expansion in practice.

Besides, Vietnam's fiber-optic network coverage increased by 22% annually during this period, and, by comparison, it far surpasses that of neighboring countries. This context is also evidenced by the increase in mobile broadband subscriptions from 46.9 per 100 inhabitants in 2018 to 77.3 by the end of 2021, which illustrates the practical impact of the actualized policy initiatives. Despite the Covid-19 pandemic serving as a powerful external catalyst in both countries, it has dramatically accelerated existing digital transformation plans. When scrutinizing government spending patterns, we observed a pronounced spike in digital infrastructure investment coinciding with pandemic response measures.

First, Indonesia redirected approximately $2.6 billion toward digital infrastructure during 2020-2021, while Vietnam allocated an additional $1.9 billion specifically toward expanding connectivity in previously underserved regions. Our investigation of existing databases revealed that the pandemic necessitated the rapid adoption of digital services across both populations. We observed that Indonesia experienced a 157% increase in the use of government digital services between March 2020 and December 2021. Thus, Vietnam's digital government portal documented an 186% increase in user accounts over a similar period. These metrics support our assessment of the pandemic, which created both a need for and an opportunity to advance digital governance. The public-private collaboration model has also proven very effective in both contexts. As a result, Indonesia's partnership with major telecommunications providers led to the development of 35,000 new base stations in barrier regions, improving accessibility during this period. It also happened in Vietnam, which leveraged private-sector expertise through partnership agreements that facilitated the development of digital infrastructure while keeping government costs under control. It implies that this collaborative approach has accelerated the spread of digitalization by around 30-40% compared to previous infrastructure initiatives in the last year, which were not as significant.

The next aspect concerns mobile technology emerging as the primary access point in both countries, with mobile broadband connections outnumbering fixed connections by a ratio of around 7:1 in Indonesia and 5:1 in Vietnam by 2022, which illustrates that this mobile-centric development pattern differs from historical infrastructure expansion in developed countries, but seems to fit proper with the geographic and economic context of Southeast Asian countries that are locationally in need of integrated connectivity. In more detail, we examine the results beyond the raw TII metrics and find significant improvements in service accessibility. It starts with a few key elements, such as the newly digitized system. The average processing time for business permits decreased by 67% in Indonesia and 58% in Vietnam, which supports the claim that tax compliance rates increased by 23% and 27%, respectively. It implies upgraded accountable governance that ultimately comes from improved infrastructure.

To connect the findings, we acknowledge this insight as linked to the theoretical concept that was supported to enhance digital transformation in the public sector, which must prioritize the people-centric approach as a part of the digital ecosystem and the basis of this also promotes that digital transformation cannot simply rely on the symbolic concretisation of digitalization projects, but must be accompanied by institutionalization, human resource training, and a focus on local needs (Werang, Werang, & Rizki, 2025). In short, we recommend that both countries focus on addressing the remaining geographic and sustainability barriers while continuing to build on the growth momentum achieved. The data display that continued collaboration between the public and private sectors, when supported

by well-defined policies for underserved areas, can be key to creating strong, inclusive digital governance (Likuwatan Werang, Werang, Yolandasari, Husnaeni, & Rizki, 2025). The significant advancement in the Digital Governance Index during this period is evidence that developing countries, with appropriate policy assistance and catalytic events, can accelerate digital infrastructure development. It will tighten overall governance capabilities, paving the way for a more equitable and sustainable digital future.

Digital Governance Progress and Human Capital Development Gap

Second, our scrutiny of the E-Government Development Index (EGDI), Online Services Index (OSI), and Human Capital Index (HCI) in Indonesia and Vietnam displays a clear gap between technological progress and human resource development. Both countries have indeed made rapid progress in the digitalization of public services, as evidenced by the relatively high increases in OSI: 19.61% in Indonesia and 23.88% in Vietnam. In contrast, the rise in HCI was relatively slow. Indonesia recorded growth of only 5.48%, while Vietnam was slightly higher at 8.45%. This disparity is a signal that digital development has not been fully balanced by an increase in the population's skills and capacity to utilize this technology. This gap is mainly due to the policy focus being overly heavy on the development of digital infrastructure, without adequate investment in human resource development.

Over the past few years, both Indonesia and Vietnam have been very active in building ICT infrastructure (e.g., online service systems, e-government applications, and internet networks). Just the same, this infrastructure progress is insufficient if the community lacks the necessary skills to access and use digital services effectively. It is specifically evident in rural and underserved areas, where education remains limited, and access to technology training remains low. Next, if we look deeper into the EGDI subcomponents, especially the OSI, which reflects the government's plan for digital services, it is clear that there has been real progress in terms of openness of information and online public services.

Notwithstanding, this achievement has not been sufficiently supported by improvements in education and training, which could increase community participation in the digital system. Many citizens, especially those from vulnerable groups such as women, older people, and rural communities, still face significant barriers to comprehending and effectively using digital services. This condition reflects that the provision of technology alone is not enough. There must be a balance between digital progress and human capacity building. In this context, the low growth in HCI indicates that there is still a lot of homework to be done in education reform and digital skills training. Without this, sophisticated services are at risk of being underutilized and could even widen the digital divide between tech-savvy and non-tech-savvy groups.

In addition, the lack of investment in human capital affects the workforce's readiness in the digital era. Suppose people are not equipped with skills aligned with technological developments. In that case, the country will find it hard to compete globally and risk in the digital economy. In Vietnam, for instance, even though its services are increasingly digitally complete, if its citizens are not ready to operate these services independently, the benefits will be limited; likewise, in Indonesia, where many digital services are actually already available but cannot yet be accessed or utilized widely by all levels of society. Hence, governments in both countries need to recognize that sustainable digital transformation requires guidance from a society that is also digitally ready. Technology will only be a tool, not the leading solution, if it is not accompanied by increasing human capabilities. Without alignment between the two, digital transformation can actually create new inequalities.

On the same page, the inspection above supports the findings. It provides a theoretical contribution to digital transformation, revealing that adopting a strategy-as-practice perspective allows for the escalation of large-scale transformation outcomes, which are profoundly shaped by the everyday actions of local actors rather than by formal strategies alone (Gritt, Forsgren, & Pandza, 2024). While national plans and digital policies provide direction, the real trajectory of transformation is determined by how these directives are interpreted, enacted, and adapted in daily practice. Local officials, frontline workers, and community actors make countless micro-level decisions on how a system is used, how problems are solved, and how change is communicated, collectively shaping the success or failure of broader initiatives (Escobar, Almeida, & Varajão, 2023). All in all, digital transformation should be understood not as a top-down actualization of technology, but as a socially embedded process created through the practical work of those who carry it out on the ground.

In sum, these findings emphasize the need for a balanced strategy between digital infrastructure development and human resource development. The government needs to implement more extensive education reforms (e.g., digital literacy in the national curriculum and expanding technology training opportunities across all levels of society). Retraining and skills enhancement programs must also be developed through partnerships with the private sector to increase workforce readiness. Only in this way can technology truly bring equitable benefits and create more inclusive, efficient, and sustainable governance. The message from Indonesia and Vietnam is that digital transformation is not just about digital systems or applications. The most paramount thing is how people are empowered to cooperate and gain real benefits from the change. A successful digital transformation builds not only platforms but also people-centric.

Public-Private Synergy as a Driver of Innovation

Admittedly, the essential role of cooperation between government institutions and the private sector cannot diminish the success of Indonesia and Vietnam in advancing digital governance. This collaboration provides a strong foundation for implementing cutting-edge technologies, such as data platforms, artificial intelligence (AI), and online service portals, in public service systems. Not only does it accelerate the digitalization process in government, but this collaboration has also been proven to increase efficiency, transparency, and the government's ability to respond to community needs. By combining the technological advantages of the private sector with the public service responsibilities of the government, the two countries can create a more open, modern, and coordinated governance system. The main reason for this collaboration's effectiveness is the presence of significant advantages. The private sector is known to be faster at innovating and to present technological solutions aligned with current developments.

Meanwhile, the public sector has the capacity to reach the wider community and to regulate and manage policies nationally, which not only supports the overall digital transformation but also ensures that public services become more efficient and targeted. This collaboration also provides space for a more user-centric approach, as the private sector is generally more oriented toward service convenience and practicality. The real models of this collaboration's success are the two flagship programs in each country. In Indonesia, the "One-Data Indonesia" program is a clear model of how government-private sector cooperation can produce a more open and accountable data management system. This program integrates data from various government agencies into a single national platform, making it easier to access and use data more efficiently and accurately. In its development, many private technology companies were involved, from data infrastructure providers to integration system developers. As a result, the policy formulation process becomes more data-driven, enabling public services to be delivered more quickly and accurately.

In the meantime, Vietnam is developing an integrated public service system known as the "One-Stop-Shop Portal". This portal allows the public to access various government services through a single digital door, significantly reducing bureaucratic processes and speeding up service delivery. During its development, Vietnam collaborated with technology companies to create an easily accessible user interface and a reliable, secure backend system. This portal has become a symbol of efficiency in the furnishing of public services in Vietnam and has further strengthened public trust in its government. More than just system development, the private sector also plays a vital role in building the government's human resources capacity.

Many technology companies, both local and international, are involved in training civil servants, providing technical consultations, and assisting in the management of digital projects. These activities help the government accelerate the adaptation of new technologies while strengthening the competence of the state apparatus. It shows that the success of digital governance depends not only on devices and systems but also on increasing the capacity of the people who run and manage the system. But this success also brings its barriers. Heavy reliance on the private sector can raise concerns, particularly regarding digital independence and public data management. The government needs to build a robust regulatory and policy framework to uphold the principles of transparency, accountability, and data protection.

Nonetheless, the investigation acknowledges that the growing cooperation between government institutions and the private sector in Indonesia and Vietnam has indeed accelerated digital governance, while simultaneously exposing several critical problems that cannot be overlooked. At the same time, this condition also supports the theoretical connection, revealing the most pressing concern: the

growing reliance on private companies, which threatens digital independence and may weaken the long-term state's control over essential systems (Syed, Bandara, & Eden, 2023). This reliance is closely tied to issues of data governance, where public data becomes vulnerable to privacy breaches, misuse, or unequal ownership (Kitsios, Kamariotou, & Mavromatis, 2023). Without stronger internal capacity-building, digital transformation may become unsustainable, leaving governments dependent on external expertise. In the same way, these problems underline the need for stronger regulations, improved oversight, and a more balanced distribution of technological capabilities.

To close, the state needs a long-term strategy to develop its internal capabilities so it can continue to manage technology independently and not be utterly dependent on external parties. These findings promote the idea that cooperation between the public and private sectors is crucial to the success of digital transformation in Indonesia and Vietnam. This collaboration can speed public service reform, enlarge bureaucratic efficiency, and strengthen the capacity of state institutions. The "One Data Indonesia" program and Vietnam's "One-Stop-Shop Portal" are proof that a collaborative approach can provide real results in lifting governance.

D. CONCLUSION AND RECOMMENDATION

Conclusion

To conclude, the interplay of technological infrastructure, human capital, and public-private collaboration shapes digital transformation in governance. The cases of Indonesia and Vietnam reveal the importance of appropriately establishing digital transformation. Programs such as Indonesia's "Making Indonesia 4.0" and Vietnam's National Digital Transformation Program, reinforced by pandemic-driven acceleration, expanded connectivity, increased internet penetration, and enhanced access to digital services. Next, we noted that the mobile broadband became the primary access point, reflecting strategies adapted to regional geographic and economic contexts. These enhancements translated into more efficient governance, exemplified by faster business permit processing and higher tax compliance rates.

Theoretically, the study underlines the "strategy-as-practice" perspective, showing that digital transformation is not solely a top-down policy outcome but is shaped by the daily actions of local actors who interpret and implement these strategies. It stresses the importance of human agency in realizing governance reforms. In conclusion, effective digital governance requires a balanced approach that couples infrastructure growth with human capital development, inclusive education, and collaborative innovation. Only by empowering people alongside deploying technology can digital transformation yield equitable, sustainable, and people-centered public services.

Recommendation

To establish digital governance, policymakers should adopt a balanced approach that combines technological infrastructure with human capital development. Second, expanding internet connectivity and mobile broadband must be paired with programs that enhance digital literacy, equip public servants with relevant skills, and promote inclusive access to digital services. Third, strengthening public-private collaboration can foster innovative solutions while ensuring accountability and data security. Digital strategies should be tailored to regional contexts, addressing geographic and economic differences to reduce digital divides. Performance-oriented monitoring systems can track improvements in service efficiency, citizen engagement, and administrative transparency.

In closing, future research should examine the effects of digital programs on governance outcomes, the role of local actors in shaping concretisation, and methods to include marginalized populations or to conduct comparative studies across countries, which can point out best practices and scalable approaches. At the same time, assessments of long-term sustainability can ensure lasting benefits. By linking technology, human capacity, and collaboration, governments can achieve equitable, people-centered digital transformation.

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