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Collaborative Approach on Digital Government Transformation in West Java.

[1] **Rio Yusri Maulana,** [2] **Anry Firmansyah**
[1]*Program Studi Ilmu Pemerintahan, Universitas Jambi.*
[2]*Program Studi Administrasi Keuangan Publik, Universitas Padjadjaran.*
[1]rioyusrimaulana@unja.ac.id, [2]anry.firmansyah@unpad.ac.id

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ABSTRACT

The world is witnessing exponential growth and rapid change brought about by the advent of the digitalisation era. This change offers an opportunity to revisit the strategic approach on using Information and Communication Technologies (ICTs) to improve the delivery of public value. Considering that governments around the world are now facing declining levels of public trust. Using so-called digital transformation, governments adapt the wide use of ICTs to better support government functions, services, and citizens, encouraging their participation in policy-making processes. Successful government digital transformation often depends on the ability of multiple government or non-government organisations to collaborate towards shared objectives. However, most governments are far from fully exploiting the benefits of ICTs, and often forget that in some social groups, access to ICTs is limited at the point of digital inequality. This article provides an overview of how the Indonesian local government implements its digital-based policy, which is centered on an electronic-based government system in Indonesia (SPBE), linking cross-sectoral central government agencies. In recent years, government organisations have spent a large part of their budgets on information and communication systems and rely on these systems for their functioning. However, the complexity of the digital transformation still requires considerable effort, especially when it comes to a lack of ICT infrastructure, human resources, and bureaucratic culture. By using qualitative methods, knowledge is formed through the perspective and way of interpretation that comes from the participants included in the research, not limited to the research implementer. The data will be collected through literature study, in-depth interviews, and observations. The aim of the research is to describe how collaborative governance contributes to the policy process of using ICTs to deliver inclusive policies by local governments.

A. INTRODUCTION

The rapid advancement of digitalization in our societies and economies, driven by data and digital tools, has significantly influenced people's lives at both individual and societal levels. This transformation has also brought notable changes to the public sector, including public governance, which presents challenges when governments are devising and implementing public policies. The transformative power of technology has not only affected internal government operations but has also altered the relationships between the government and citizens, as well as between the government and businesses. This

collaborative effort spanning multiple sectors has been extensively discussed in the literature under the concept of collaborative governance. However, the ongoing technological disruption is ushering in a new approach to the field of public administration science, emphasizing that digital transformation can impact various aspects of existing collaborative processes. Nevertheless, the terminology used in collaborative governance research has evolved and changed over the past two decades, often blurring the boundaries between different concepts, particularly in the context of digital transformation.

Collaborative governance, as its name suggests, represents a governance approach that has been adopted within the realms of public administration, network management, territorial management, and ecosystem management. It has been a subject of study and practice in American, European, and Australian literature and has emerged as a theoretical construct rooted in governance theory. In the words of Ansell and Gash (2018), collaborative governance is defined as the coordination of standards and rules that are collectively determined and projected to regulate individual behavior within a group context. Within the framework of collaborative governance, the central focus lies on governance processes that blur the distinctions between public, private, and community domains. This approach is particularly relevant in addressing the interconnected challenges that governments encounter in contemporary times (Bradford 2016). Collaborative governance serves as a prominent avenue for fostering collaboration among communities, the private sector, and government entities. It plays a pivotal role in alleviating the burden on the state when it comes to delivering essential goods, services, and promoting societal well-being. (Ansell and Gash 2018; Kim and Grant 2010; Maulana 2020). Within collaborative governance, collaboration can be defined as a situation where a group of autonomous stakeholders from different sectors engages in an interactive process (Hajnal and Jeziorska 2021). Research in this field is growing rapidly and being adopted in various disciplines, not only in public administration (Maulana and Dečman 2023).

However, in line with the development of collaborative governance trends in literature, the intersection of technological disruption with government life is unavoidable today. A lot of recent literature discusses the era of digital governance (Gil-Garcia, Dawes, and Pardo 2021; Margetts and Dunleavy 2013), such as e-government and digital government (Benay 2018; Gil-Garcia, Dawes, and Pardo 2018). Digital era governance could be considered a contemporary umbrella term for all recent initiatives to modernize governance in public administration, based on the introduction of digital transformation. The concept of Digital transformation (DT) is a recognized research field that has emerged as digital technologies have been widely adopted in society, industries, and organizational management (Nadkarni and Prügl 2021; Verhoef et al. 2021; Vial 2019). There are many definitions of digital transformation in government studies, each of which pays attention to a different aspect of digital transformation (Eom and Lee 2022). This research understands digital transformation from a digital innovation in government perspective. The reason for this is that digital transformation is about innovation (Hinings, Gegenhuber, and Greenwood 2018), and the concept of digital transformation is often used interchangeably with the concept of digital innovation. It is known that digital transformation arises at the intersection of products, services, and mediums based on digital technologies and processes of value transformation and innovative creation. Since its inception, digital transformation has been characterized as a field of research that has continuous changes associated with its relevant area (Roth 2019). Integrating extant literature, Vial (2019) defined digital transformation as "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies."

The rapid advancement and widespread adoption of emerging ICTs within the framework of digital government are ushering in fresh opportunities for growth and development across nations globally, including Indonesia. In Indonesia, government functions are categorized into two distinct groups: absolute and concurrent tasks. Absolute tasks, encompassing domains such as foreign policy, defense, security, the monetary system, the judiciary, and religion, are solely within the purview of the central government. Concurrently, local government entities, such as provincial and district governments, manage other functions, including public works, health, education, culture, agriculture, communication, industry, trade, investment, environment, land, cooperation, and labor. In the broader distribution of responsibilities, local governments formulate essential public policies and deliver services that often encompass education, healthcare, and basic physical infrastructure, including ICTs. Moreover, a guiding principle known as

"money follows function" dictates that as tasks are transferred to local governments, the necessary financial resources must accompany this transfer to facilitate their execution (Sutiyo and Maharjan 2017).

Hence, in light of the considerable progress in the literature pertaining to digital transformation and collaborative governance, the primary objective of this research is to discern practical applications of this conceptual framework within the domain of local government administration in West Java. This investigation is particularly focused on exploring the perspectives advanced by policy actors and stakeholders, aiming to uncover nuanced insights into the tangible implications and implementations of the intersection between digital transformation and collaborative governance in the administrative landscape of West Java.

Indonesia's governments are actively exploring the potential offered by these modern technologies to introduce new dimensions of economic and societal progress. In recent years, governments globally have made concerted efforts to leverage information and communication technology (ICTs) to enhance the efficiency of government administration and facilitate more effective communication with citizens. Digital Government extends beyond the modernization of public administration through ICTs; it is a pivotal enabler in establishing citizen-centric, collaborative, and contemporary governance models.

Different governments on various levels (state, regional, local) have taken different paths to digital transformation, many relying on their digital maturity stage. In Indonesia, the digital government policy is stated as The Electronic Based Government System (SPBE) and regulated in the Presidential Regulation Number 95 of 2018 concerning the Electronic Based Government System. SPBE Master Plan refers to the 2005-2025 Long Term Development Plan (RPJP) policy direction and the 2010-2025 Indonesian Bureaucratic Reform Grand Design. SPBE's vision is realizing an integrated and comprehensive electronic-based government system to achieve high-performance bureaucracy and public services. This vision became a reference in realizing the implementation of e-government in the various levels (state, provincial, and local) of governments to produce public policy that spurs the improvement of the quality of government administration, increases community participation and satisfaction.

In the context of local governance in Indonesia, the concept of digital government transformation has emerged as a strategic response to address the multifaceted challenges associated with the region's population and vast territory. This article specifically directs its focus towards one of the largest local government entities in Indonesia, West Java Province. Boasting a population exceeding 49 million individuals, which accounts for approximately 20 percent of Indonesia's total population, West Java Province is also distinguished by its expansive land area, encompassing approximately 3.7 million hectares. Administrative divisions within West Java include 18 regencies, 9 cities, 5,312 villages, and 645 sub-districts (Pemprov Jabar 2022).

West Java Province, one of Indonesia's most extensive regions, has experienced rapid population growth over the years. A high-quality workforce has complemented this demographic growth, contributing to the region's socio-economic development. Consequently, West Java has emerged as one of the nation's most productive and economically competitive provinces. However, similar to other large local governments in Indonesia, West Java faces various contemporary challenges in the digital era. In the current digital landscape, local governments, including West Java, encounter difficulties in delivering public policies and services, such as education, public transportation, and healthcare, with equitable access for all citizens. To expedite the process of digital transformation in West Java, Governor Ridwan Kamil initiated the establishment of Jabar Digital Service (JDS) as a government institution rooted in information technology innovation. The primary objective of JDS is to enhance governance efficiency, facilitate policymaking, ensure accountability, foster community engagement, and promote the development of innovative and responsive public services. Jabar Digital Service (JDS), also known as the Center for Digital, Data, and Geospatial Information Services for West Java Province, aspires to realize the overarching vision of the West Java Government—a vision that envisions the province as a digital powerhouse grounded in data and technology. This vision seeks to uphold community-centric services while fostering adaptive,

innovative policymaking that responds effectively to the population's evolving needs (Jabar Digital Service 2021).

Operating under the coordination of the West Java Province Communication and Information Office, JDS (Jabar Digital Service) is entrusted with a mission to achieve data-driven policymaking, expedite the digital transformation of government functions, and streamline the lives of individuals through digital technology. Serving as one of the instrumental bodies collaborating with the West Java provincial government in advancing the province's development rooted in data and accommodating aspirations and grievances as feedback forms, JDS plays a pivotal role in enhancing the quality of public services and upgrading public service infrastructure. Governor Ridwan Kamil's vision for his administration includes positioning West Java as a leading digital province. JDS emerges as a proactive solution aimed at addressing the digital divide that often exists between urban and rural areas. Its core objectives encompass enhancing the efficiency and precision of data and technology-based policymaking, thereby contributing to the realization of West Java as a data and technology-driven digital province. This aspiration is closely aligned with the mission of ensuring that services and decision-making processes are responsive, adaptable, and innovative in crafting public policies that cater to the population's evolving needs.

Considering the framework outlined above in the context of digital transformation and how this relationship extends to impact local government performance, limited research has been conducted on the interconnecting concept between collaboration and digital transformation within local government, including the influence of ICTs and other factors (Mahmood, Weerakkody, and Chen 2020). Therefore, it is crucial to delve into the collaborative approach to government digital transformation in West Java, offering a novel perspective to the emerging field of public administration. This exploration holds the potential for practical implications that can reshape interactions between citizens and the government in two significant ways: firstly, by improving the formulation and delivery of public policies and services; and secondly, by fostering stronger and more positive relationships between citizens and the government.

B. METHOD

This paper uses qualitative research approach to understand more deeper on collaborative process carried out by the local government in ensuring the realization of public policies through digital government and the relation between digital transformation and public trust in the process of public policy. Qualitative research instruments are especially suitable for exploratory research, as qualitative research follows the guiding principles of openness to the subject, consideration of the subjective perspectives of the persons involved and their multidimensionality and gaining an understanding of the subjective meaning individuals give to their action (Bogner, Littig, and Menz 2018). The qualitative methods will be conducted with an in-depth interview, advanced observations, and detailed data collections from government agencies, non-government organizations, and citizens. According to Creswell (Creswell and Creswell 2018) by using qualitative methods, knowledge is formed through the perspective and way of interpretation that comes from the participants included in the research, not limited to the research implementer.

The information will be gathered by conducting a review of existing literature, conducting in-depth interviews, and making observations. The study utilizes NVivo 12 Plus, a software designed for qualitative data analysis (Y. Li, C. Liao, and Z. Xiang 2021). In this research, Qualitative Data Analysis (QDA) is performed with the assistance of the computer program NVivo 12 Plus. The analysis process involves the use of NVivo 12 Plus, a software specialized in qualitative data analysis that streamlines the collection, categorization, mapping, examination, and visualization of qualitative data. This data encompasses information obtained from various sources, including documents such as memos, reports, legislation, and photographic materials, as well as data gathered from interviews (Bazeley and Jackson 2013. The primary

objective of this study is to elucidate how collaborative governance contributes to the policymaking process regarding the utilization of ICTs for the delivery of inclusive policies by local governments.

C. RESEARCH FINDINGS AND DISCUSSION

Collaboration And Development Of Digital Transformation In Indonesia

Indonesia has been on an impressive economic growth trajectory in recent years, and this transformation has been marked by its evolution from an upper-middle-income developing nation into one that boasts a more inclusive, contemporary, and globally respected economy. This remarkable transformation can be attributed, in part, to the rapid industrialization the country has experienced, which has had a positive impact on Indonesia's overall economic growth. A noteworthy indicator of this growth is Indonesia's real Gross Domestic Product (GDP), which has shown remarkable expansion. Between 2009 and 2019, the country's GDP more than doubled, rising from USD 0.5 trillion to USD 1.1 trillion. This surge in economic output has brought Indonesia into the ranks of significant emerging economies, drawing international attention and investment. However, despite this impressive economic growth, there is a notable gap when it comes to the development of innovation within the country. Traditionally, as a country's GDP grows, there is a corresponding increase in innovation and technological advancement. However, in Indonesia's case, this correlation has not been as strong as one might expect. This discrepancy becomes evident when analyzing the 2019 Global Innovation Index (GII). Indonesia's GII score falls behind several neighboring Southeast Asian countries, such as Brunei Darussalam, the Philippines, Thailand, Vietnam, Malaysia, and Singapore. In the 2019 rankings, Indonesia held the 85th position, which placed it as the second lowest among ASEAN countries in terms of innovation development and competitiveness. This situation highlights the importance of nurturing and supporting innovation and research and development (R&D) initiatives within Indonesia to ensure that its economic growth is not only substantial but also sustainable and driven by a culture of innovation. Addressing this innovation gap can help Indonesia not only maintain its economic growth but also enhance its position on the global stage as a forward-thinking and technologically advanced nation. (katadata.co.id 2019)

Acknowledging the immense advantages of embracing digital transformation, President Joko Widodo, during the Limited Meeting concerning Digital Transformation Planning, issued five specific directives aimed at expediting the country's digital transformation agenda. These directives are centered around five key steps, which include: expediting the expansion of digital infrastructure and the delivery of internet services, formulating a strategic roadmap for digital transformation in vital sectors, hastening the integration of national data centers, cultivating a skilled workforce and nurturing digital talents, and establishing a comprehensive framework of regulations and financing initiatives to bolster the digital ecosystem. (Setkab 2020). The foundation for the development of the Digital Indonesia roadmap lies in the five steps introduced by President Joko Widodo to expedite digital transformation. Digital Indonesia has established six strategic directives to actualize its vision. These six directives are designed to steer Indonesia toward an innovation-driven economy with world-class technological capabilities, a highly skilled workforce, and a society that embraces a digital culture, all geared towards readiness for the future. Furthermore, the 2021 Draft State Revenue and Expenditure Budget (RAPBN) outlines specific areas of expenditure to facilitate digital transformation in Indonesia. The Indonesian government has allocated IDR 30.5 trillion in 2021 for the development of information and communication technology (ICT), with a focus on several key aspects (Setkab 2020):

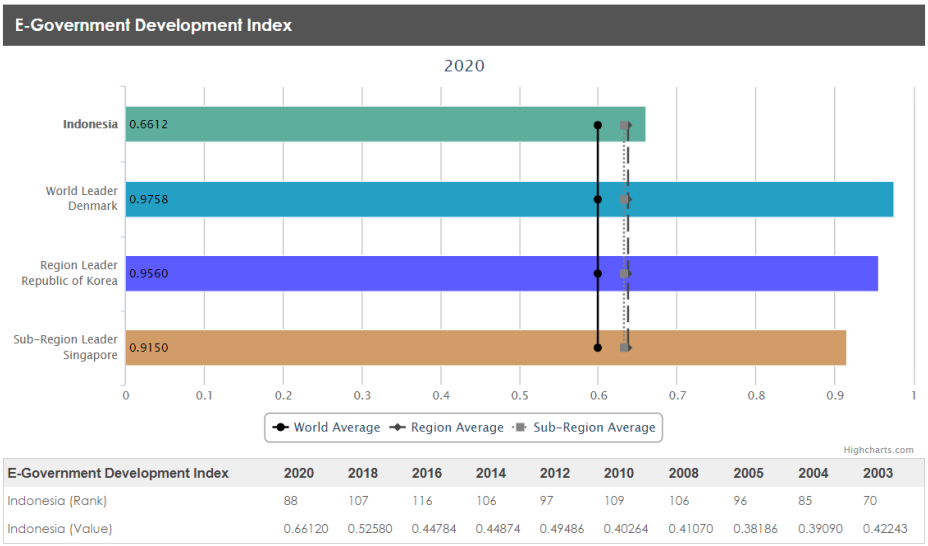
1. Accelerating digital transformation within central and local government administration.
2. Achieving efficient and rapid delivery of public services, particularly in sectors like education, healthcare, and government services.

3. Consolidating and optimizing infrastructure, especially those utilized by cross-sectoral institutions.
4. Promoting community inclusion in the development of priority areas and advancing equality by expanding internet access to an additional 4,000 villages and sub-districts.

Government spending in 2021 is primarily focused on three key areas: digital infrastructure, the acceleration of digital transformation, and enhancing the productivity of human resources through economic knowledge. The emphasis on developing digital infrastructure, including expanding access to the internet, is especially critical due to existing disparities in internet accessibility across Indonesia. To illustrate this, the average percentage of households with internet access in West Java Province, both in urban and rural areas, stands at 31.65%, while in Papua Province, it's only at 10.06%, East Nusa Tenggara Province at 13.73%, and Maluku Province at 20.26%. It is imperative to achieve inclusive internet access to facilitate digital transformation, although it is not the sole determining factor. Equally important are factors such as research and development (R&D) capabilities, innovation in production, and the availability of skilled talent. Unfortunately, Indonesia's performance in these various indicators has not yielded promising results(katadata.co.id 2019).

Nonetheless, in recent developments, there are several encouraging factors that could serve as pivotal moments in Indonesia's digital transformation. These positive signs are evident in collaborative efforts at the policy-making level, increased fiscal support, and infrastructure enhancements. Notably, the implementation of the electronic-based government system in Indonesia (SPBE) has brought together various government agencies spanning different sectors. This collaborative initiative involves entities such as the Ministry of State Apparatus and Bureaucratic Reform, the Ministry of Communication and Information, the Ministry of National Planning, the Ministry of Finance, the Ministry of Home Affairs, the Agency for the Assessment and Application of Technology (BPPT), and the National Cyber and Crypto Agency (BSSN). This emphasis on collaboration in governance signifies that all stakeholders share equal responsibility for the decisions made. Consequently, effective collaboration necessitates that all parties involved convene at the same table and hold equal decision-making authority (Maulana, Decman, and Durnik 2022).

The United Nations (UN) e-Government Survey 2020, under the theme "Digital Government in the Decade of Action for Sustainable Development," categorizes countries based on their e-Government Development Index (EGDI) scores. According to this classification, countries that score above 0.75 are considered to have a very high EGDI, those with scores ranging from 0.50 to 0.75 are classified as having a high EGDI, those with scores from 0.25 to 0.50 fall into the middle-rank EGDI category, and countries scoring below 0.25 are categorized as having a Low EGDI. In this survey, Indonesia is ranked 88th concerning developing and implementing e-government, including the electronic-based government system (SPBE). This ranking represents a significant improvement, with Indonesia ascending 19 places compared to its 2018 ranking of 107th and its 2016 ranking of 116th, as reported by the UN in 2020. Overall, Indonesia scored 0.6612 in the High e-Government Development Index (EGDI) category, placing it within the top 100 countries globally, securing the 88th position out of 193 countries (United Nations 2020).



E-Government Development Index	2020	2018	2016	2014	2012	2010	2008	2005	2004	2003
Indonesia (Rank)	88	107	116	106	97	109	106	96	85	70
Indonesia (Value)	0.66120	0.52580	0.44784	0.44874	0.49486	0.40264	0.41070	0.38186	0.39090	0.42243

Image: UN e-Government Survey 2020 (UN, 2020).

Figure 1. Comparison of Indonesia's EGDI Score with other countries.

The prevailing challenge hindering the process of digital transformation in Indonesia today primarily centers around the glaring disparity in infrastructure development across the nation. This issue is exemplified by the uneven distribution of Indonesia's information and communication technology (ICT) infrastructure, which is far from being uniformly accessible throughout the country. This critical infrastructure gap poses significant hurdles to the nation's digital progress (indonesia.go.id 2022).

To provide a clearer picture of the situation, it's important to note that a substantial number of Indonesia's villages and sub-districts—12,548 to be precise—still lack access to 4G services. This deficiency in 4G coverage is particularly pronounced in areas designated as underdeveloped, frontier, and outermost (3T) regions, where 9,113 villages and sub-districts are without this crucial connectivity. Moreover, even in non-3T regions, 3,435 villages and sub-districts grapple with the absence of 4G services. This digital divide has significant consequences for these communities, limiting their access to the benefits of the digital era, such as improved communication, access to online services, and participation in the digital economy(katadata.co.id 2021).

Internet access in Indonesia remains a pressing concern. According to data from the Speedtest Global Index 2020, Indonesia's internet access speed ranks a modest 120th worldwide. This indicates that many users within Indonesia experience slower internet speeds compared to countries with more advanced ICT infrastructure. The ranking for fixed broadband speed similarly indicates the infrastructure challenge, with Indonesia occupying the 115th position globally. Addressing these infrastructure disparities is crucial for Indonesia's digital transformation journey. Ensuring that the benefits of the digital age are accessible to all citizens, regardless of their geographical location, is not only a matter of technological progress but also a matter of social and economic equity. Closing this digital divide will play a pivotal role in driving inclusive growth and fostering digital innovation across the nation(indonesia.go.id 2022).

Considering the information provided earlier, it can be concluded that the Indonesian government has undertaken a range of endeavors and programs following the issuance of Presidential Regulation No. 95/2018 on e-Government, aimed at enhancing the state of digital governance in Indonesia. However, the results have yet to reach their full potential and often fall short of the expectations outlined in the regulations. Nevertheless, it's worth acknowledging that certain regions within the country have demonstrated commendable progress in developing digital government practices. Drawing from insights offered by existing literature, it becomes evident that several factors pose challenges and obstacles to the effective implementation of digital government initiatives in Indonesia. (Alryalat et al. 2017; Maulana 2020; Schwertner 2017) as follows:

1. Lack of Standardization and Limited Socialization: The absence of clear and comprehensive standardization for the execution of digital government initiatives is a significant challenge. This deficiency extends to the inadequate dissemination of information regarding how to effectively implement information and communication technologies (ICTs) in the context of local government collaborations. This shortfall in standardization and socialization efforts hampers the sustainability of policy innovations and can lead to inconsistent practices across different regions.
2. Shortage of Competent Human Resources: The scarcity of qualified and skilled human resources capable of effectively managing the intricate business processes associated with digital government is a critical issue. This shortage results in a gap within the government's internal bureaucracy, where there is a disconnect between the vision of digital transformation and the capacity to execute it. Without the requisite expertise, the implementation of digital government projects becomes challenging.
3. Uneven Distribution of Technology Infrastructure: The uneven distribution of technology and information infrastructure across various regions and local governments compounds the challenges. Disparities in access to essential technological resources hinder the equitable advancement of digital government initiatives. Some regions may be better equipped, while others struggle due to inadequate infrastructure, which exacerbates the digital divide.
4. Limited Community Engagement and Digital Literacy: There is a noteworthy lack of community engagement and digital literacy, particularly among lower and middle-class population segments. The majority of the population faces barriers to effective ICT utilization, which stems from limited digital literacy. Without addressing this gap, the potential benefits of digital government may remain out of reach for a significant portion of the population.
5. Insufficient Commitment from Top-Level Policy Makers: The insufficient commitment from high-ranking policy makers within local government bodies presents a significant obstacle to the successful implementation of digital government initiatives. This lack of commitment affects the allocation of resources and hinders collaboration with stakeholders, including citizens. Without strong support from top-level decision makers, digital government projects may lack the necessary momentum and resources to thrive.
6. Organizational Culture and Knowledge Sharing: Organizational culture plays a pivotal role in shaping the success of digital government efforts. Unfortunately, many government entities exhibit cultures that are resistant to change, hindering the adoption of innovative digital practices. Additionally, there is often a dearth of knowledge sharing and information exchange, particularly between different government agencies. This lack of a collaborative knowledge-sharing culture can impede the seamless integration of digital solutions and hinder the collective advancement of digital government initiatives..

Stakeholders Perceptions On The Development Of The Emerging Concept

In this section, the author will present the outcomes of visualizing the primary data analysis collected through various methods, including in-depth interviews. The key individuals contributing to this study are stakeholders actively engaged in the advancement of e-government in Indonesia. This encompasses entities from the Central Government, Regional Governments, Private Sector, and CSOs/NGOs. The selection of these sources has a specific purpose: to ensure the acquisition of comprehensive and informative data that greatly supports the evolution of e-government in Indonesia. In the practical execution of data collection, information is obtained through a structured questionnaire. This questionnaire is tailored to align with several key indicators and research variables. Each question in the questionnaire is customized to extract specific insights relevant to the research objectives. To identify the indicators and variables that have been predefined, they can be cross-referenced in the code list provided below:

Table 1.
Classification of Research Indicators and Variables

Theory/ Concepts	Variable/Component/Dimension	Cons-truct
Collaborative Governance (CG)	Starting Conditions/system context	CG-i1
	Facilitative Leadership/drivers	CG-i2
	Institutional Design	CG-i3
	The Collaborative Process/ Collaborative Dynamics	CG-i4
	Output Collaborative Action	CG-i5
	Outcomes/collaborative outcomes	CG-i6
	Adaptation	CG-i7
Digital Transformation (DT)	Use of digital technologies	DT-i1
	Disruptions	DT-i2
	Strategic responses	DT-i3
	Change in value creation paths	DT-i4
	Structural changes	DT-i5
	Organizational barriers	DT-i6
	Negative impacts	DT-i7
	Positive impacts	DT-i8
Digital Government (DG)	Digitization (Technology in Government)	DG-i1
	Transformation (Electronic Government)	DG-i2
	Engagement (Electronic Governance)	DG-i3
	Contextualization (Policy-Driven Electronic Governance)	DG-i4
Trust in Government Organizations (TG)	Trusting Belief - Benevolence	TG-i1
	Trusting Belief - Competence	TG-i2
	Trusting Belief - Integrity	TG-i3
	Trusting Belief - Predictability	TG-i4

Source: Researcher, 2022

Based on the table above, it can be seen that this research has several measurements *of indicator theory* which is determined based on the variables. In addition, in practice, the measurement theory is adjusted to the conditions that occur in each of the actors' environments. So that these conditions can provide information that is relevant to the relationship and connectedness between actors in the process of developing *e-government* in Indonesia. Then, at the stage of data analysis, the results of data collection through interviews were processed using *NVivoPlus12* software. The selection of these analytical tools can assist researchers in measuring the influence between variables determined in seeing the dominance of *e-government development* in Indonesia.

Sixteen parties/actors are sources of data collection in explaining information on *e-government development* in Indonesia. The selection of these resource persons is determined by the function of the institution that becomes and has a major influence on the implementation of *e-government* in Indonesia. In terms of capacity and accountability of respondents, the level of professionalism has been clarified. This condition can be seen from the work experience of each resource person and the career track profile of each

resource person who is currently *the top manager* in each agency. Then the results of each data collection will be recorded and recorded properly based on what was conveyed by the resource person based on the questions asked. Technically, in the implementation of data collection there are no problems that hinder. Then, after conducting *theoretical research,* actors and data collection, the next stage is data analysis and results. At this stage, it becomes an important part of seeing the results of the measures in each *theory.* So that through the results of data analysis and data analysis, we can find out the dominance of *e-government development* in Indonesia. Then to find out the measurement results of each variable and sub-variable, we have done the following table.

Table 2.
Result of Identification of Measurement Theory

Indicator	Variable	Total	Percentage
Collaborative Governance	CG 1	18	16%
	CG 2	15	13%
	CG 3	13	11%
	CG 4	40	34%
	CG 5	17	15%
	CG 6	12	10%
	CG 7	1	1%
Total		116	
Digital Government	DG 1	15	32%
	Directorate General 2	24	51%
	DG 3	7	15%
	DG 4	1	2%
Total		47	
Digital Transformation	DT 1	16	13%
	DT 2	12	9%
	DT 3	17	13%
	DT 4	25	20%
	DT 5	36	28%
	DT 6	10	8%
	DT 7	7	6%
	DT 8	4	3%
Total		127	
Trust in Government Organizations	TG 1	6	35%
	TG 2	5	29%
	TG 3	4	24%
	TG 4	2	12%
Total		17	

Source: Researcher, 2022

The results of the data analysis above can be seen the level of readiness and dominance of *e-government development* in Indonesia in every aspect. The highest dominance in each variable has a different level of distribution based on the *scores* obtained between variables. The highest value becomes an important part that can be intervened related to its current sustainability. The results showed that the highest value of the

data analysis results was in the *Digital Transformation variable, totaling* 127. Then the second highest variable was in *Collaborative Governance* with a total value of 116. Furthermore, the *Digital Government variable* had a total below 50, with a total rating of 47. The lowest score was on *Trust Government Organizations* with 17. This condition can certainly be the beginning of the beginning related to the development of *e-government* in Indonesia. In addition, the comparison analysis results are visualized based on the assessment, which can be explained as follows.

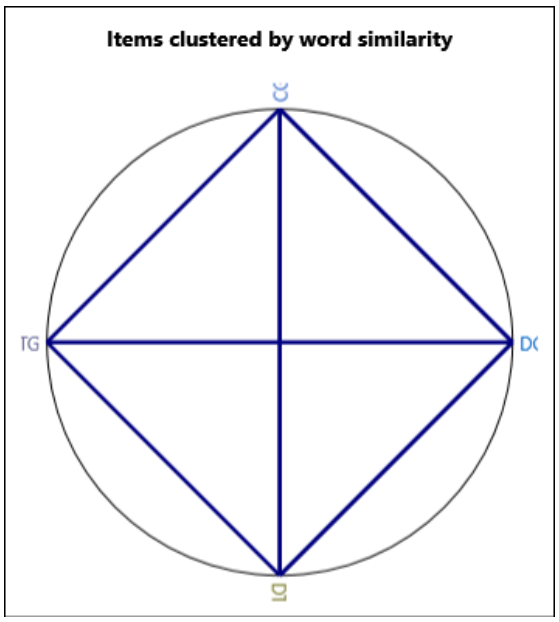
Based on the picture above, it can be seen that the dominance of *e-government development* in Indonesia occurs in the aspects of *Collaborative Governance* and *Digital Governance.* In addition, the aspect of *Trust Governance* is still very low so that from several aspects of the implementation of other variables. These conditions must be an optimal concern for the Indonesian government regarding the implementation of *e-government.* This condition can be seen from the results of the assessment in the second stage, which is a continuation of the first assessment. The purpose of the second assessment is to divide the total number of assessments and the number of variables in each indicator. As for seeing the results of the assessment can be identified in the results of the following table:

Table 3.
Assessment of Effects Between Variables

Code A	Code B	Pearson correlation coefficient
Node\\DT	Node\\DG	0.926374
Node\\DT	Node\\CG	0.917935
Node\\DG	Node\\CG	0.902849
Node\\TG	Node\\DG	0.841528
Node\\TG	Node\\CG	0.826709
Node\\TG	Node\\DT	0.800513

Source: Results of data processing using NVivoPlus12 (2023)

Utilizing Cluster Analysis through NVivoPlus12 software, it becomes apparent that each variable employed by the researchers to scrutinize the development of e-government in Indonesia exerts a significant influence. This conclusion is drawn from the outcomes of the evaluations performed on the relationships among these variables. In the context of Cluster Analysis, any value surpassing 0.6 is indicative of a robust relationship. In the assessment summarized in the table provided above, each variable attains a value exceeding the average. Consequently, it can be inferred that the variables stipulated by the researchers remain currently pertinent and serve as valuable benchmarks for advancing e-government initiatives in Indonesia. Moreover, for a deeper understanding of the interconnections between these variables, one can refer to the data visualization presented below:



Source: Results of data processing using NVivoPlus12 (2023)

Figure 1 Cluster Analysis of Relationships Between Themes.

Following the preliminary phase of project evaluation, the subsequent step involves a comprehensive analysis of the project map, as illustrated in Figure 1. The primary objective of this analysis is to elucidate the intricate web of relationships among various stakeholders involved in propelling digital transformation within Indonesia.In this phase, the analysis delves into discerning the nuanced connections and collaborations among actors participating in the development of digital transformation. The outcomes of this analysis play a pivotal role in delineating the specific roles and functions currently being executed by the prevailing inter-institutions. By scrutinizing the intricate network of relationships, the analysis sheds light on the symbiotic nature of the actors' involvement, revealing how collaboration, public trust, and the digital government framework collectively influence the trajectory of digital transformation.

This analytical endeavor offers insights into the dynamics between different indicators within the research theme. The interplay of collaboration, aspects of public trust, and the digital government itself emerges as a pivotal focal point, showcasing the interconnected nature of these elements in shaping the landscape of digital transformation. Beyond merely uncovering relationships, the project map analysis also serves to identify the dominant forces among institutional actors involved in steering digital government development specifically within the region of West Java. This insight is instrumental in understanding the hierarchical structure and influence dynamics at play, providing valuable information for strategic decision-making and policy formulation.

In essence, the analysis of the project map is not merely a visual representation but a comprehensive exploration that goes beyond surface-level observations. It serves as a key tool in unraveling the complexities inherent in the development of digital transformation, offering a nuanced understanding of collaborative efforts, trust-building mechanisms, and the pivotal role played by digital governance in shaping the contemporary landscape of technological advancement in Indonesia, with a particular focus on the distinctive characteristics of West Java.

D. CONCLUSION

Digital Transformation in Government represents a comprehensive endeavor to modernize public policy by embracing digital technologies and fostering novel forms of collaboration with stakeholders. It involves the establishment of fresh frameworks for service delivery and the cultivation of innovative modes of cooperation. The remarkable advancements in technology offer government entities the prospect of better serving their constituents and engaging them more actively in the formulation of superior policies. Incorporating citizens into the process of shaping a two-way public policy paradigm has the potential to reshape expectations regarding the relationship between the populace and the government. This involvement, facilitated by ICTs, has the capacity to nurture public trust in the government. The government's perspective on public services has evolved from a citizen-centric approach to one that adapts to the community's business requirements through collaborations with governmental bodies.

Consequently, ensuring that digital government transcends the mere digitization of public services becomes imperative. It must be seamlessly integrated into the processes governing the development of public policies, which entail the active participation of diverse stakeholders, including the private sector and the general public. The issuance of Presidential Regulation No. 95/2018, which represents a regulatory evolution of the Presidential Instruction initially issued in 2003, opens up substantial opportunities for expediting the digital transformation of the Indonesian government. While noting the rapid progress of digital adaptation across various government sectors in Indonesia and the growing awareness of the urgency surrounding digital transformation, it is crucial to acknowledge that Indonesia is still confronted with certain circumstances that necessitate accelerated regulatory adjustments, the establishment of standardized rules for digital government, and the equitable dissemination of ICT infrastructure. Additionally, there is a need for expeditious investment in developing human resources equipped with the requisite skills to drive various innovations that support government digital transformation. The potential for practical development is vast, especially in areas like improving data interoperability, securing personal data through robust network systems, and addressing the digital divide with strong leadership support. These key focuses promise a future marked by seamless data exchange, enhanced cybersecurity, and greater inclusivity in the digital landscape

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