

Conference Paper

Unleashing the Power of Capacity Building: Transforming Governance and Policy Implementation in the Digital Era

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Abstract.

This study aims to outline the strengths of capacity building and the problems associated with the lack of capacity in the context of governance transformation and policy implementation in the digital era, and initiate an innovative and sustainable capacity-building strategy as a fundamental solution. This study uses a qualitative approach and document analysis to obtain a more detailed analysis. Data was obtained from the National Planning and Development Agency, namely the National Medium-Term Development Plan (RPJMN) 2020-2024. This data included human resource development and infrastructure development in terms of information and communication technology (ICT) related to digital transformation, as well as policies that support digital transformation. The findings of this research illustrate that in terms of the quality of human resources, there are still shortcomings in skills and collaboration between government, universities, and other stakeholders in the industry, and there are still inequalities in access to information in various regions. In addition, there are still obstacles to the implementation of digital transformation in Indonesia in the delivery of public services from the aspects of leadership and political commitment, budget availability, infrastructure readiness, and the digital divide. Thus, strategies are needed to deal with them effectively. It can then be concluded that the dimension of human resource development needs to increase worker skills and knowledge related to digital technology in the public sector. Likewise, the dimension of strengthening organizational capacity that changes in organizational culture are key to dealing with governance transformation in the digital era. In the institutional reform dimension, it is important to evaluate and make changes to the existing institutional structures and processes.

Keywords: capacity building, transformation governance, digital governance

1. Introduction

In the rapidly evolving digital era, governance transformation and policy implementation face complex challenges Nielsen [1]. Lack of capacity to manage technological change and optimize digital potential can hinder progress and government effectiveness Forman & van Zeebroeck, [2]. To address this issue, a deep understanding of the concept of capacity building and its applications is crucial if this problem is not resolved.

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The Indonesian government has adopted various reform initiatives to improve governance and strengthen policy implementations. However, there is often a gap between effective policy planning and implementation Adam et al., [3]. One of the key factors that need to be investigated is the extent to which capacity building can contribute to overcoming the obstacles faced by government institutions and relevant stakeholders in implementing policies effectively in the digital era Manu et al., [4]. If this is not addressed immediately, there will be adverse consequences for the country's development and progress. Some of the things that will occur are limited innovation and productivity, digital inequality, low public trust, reduced global competitiveness, and privacy security vulnerabilities Chandra & Ahmed, [5].

This is supported by an article at the Ministry of Communication and Information in Indonesia that discusses the influence of e-government, digital competence, and digital transformation on officials' performance. It was found that digital competence is an important factor in the performance of officials in the digital transformation of government Sirait et al., [6] and states that government officials' performance tends to improve not because of motivation but because policies related to e-government and digital transformation are imposed. Another aspect is the study of the Going Digital Integrated Policy Framework that helps countries develop a coordinated, whole-of-government approach to digital transformation (OECD, 2020), which states that the policy framework towards digitalization helps countries develop a coordinated and whole-of-government approach to digital transformation. In addition, reevaluating existing digital policies should involve a governance approach that supports coordination, articulates a strategic vision, assesses key digital trends and policies, and develops and implements a comprehensive strategy. Furthermore, the article discusses policy capacities and effective policy design, which shows a future research agenda for design studies that are sensitive to the relative order of policy capacity, temporality, and complementarity among the various dimensions of policy capacity Mukherjee et al., [7].

Research that discusses governance transformation in this digital era has been conducted by several researchers and has contributed to providing solutions to overcome it. Research conducted by Zusanna Elmassah has contributed to finding a new approach to sustainable development with a focus on the locality of the SDGs. By focusing on locality, the government can customize sustainable development strategies at the local level. The SDGs localization approach combines the advantages of decentralization and centralization as an effective governance model ElMassah & Mohieldin, [8]. However, this study has limitations in using a sample of countries with specific cultural and

population features, which may limit the generalizability of the findings to broader contexts. It also has limitations in the use of indicators to measure the impact of digital transformation on local SDGs outcomes and the extent to which it affects the sustainable well-being index (SWI).

Morten M.N who conducted research on digital transformation governance and coordination models with comparative studies of Australia, Denmark and Korea. This research provides insight into the importance of governance models and intergovernmental cooperation in digital transformation in the provision and delivery of public services Meyerhoff Nielsen & Jordanoski, [1], so that this model can be used as a guide for other countries that want to accelerate their digital transformation. This study found that digital transformation, especially in the public sector, is highly dependent on governance and intergovernmental cooperation in the use of information and communication technology to build a public service ecosystem. Morten highlighted the importance of specialized institutions in the implementation of digital transformation strategies and emphasized the role of the private sector, civil society, and other institutions in digital transformation. While this study illustrates effective governance models in three specific countries, it does not provide a comprehensive picture of the situation in other countries nor does it cover all aspects of digital transformation and public service delivery.

Dirk Ifenthaler examined the Development and Implementation of a Maturity Model of Digital Transformation, focused on educational organizations in Europe, and developed a maturity model based on theory Ifenthaler & Egloffstein, [9]. The findings of this study show that these educational organizations have a positive attitude towards information technology and digital media, so educational institutions are classified as digital pragmatists. This research has limitations because it was conducted in only one educational organization in Europe, so the generalizability of the findings is limited. In addition, this research used a case study approach; therefore, the results may not be directly applicable to other organizations.

This article explores governance transformation and policy implementation in the digital era using a capacity-building framework Grindle. The concept of capacity building can be used to increase the capacity of individuals—in this case, human resources. In this context, the concept is used to develop digital skills and literacy for governance stakeholders to understand and use digital technology effectively, increasing understanding of paradigm shifts and practices related to governance transformation in the digital era, and encouraging adaptability and innovation in the face of technological change and digital demands. In addition, this concept can be used to strengthen the

capacity of organizations, in this case, the government, to provide public services. In this case, it is used to build the technological infrastructure needed to support governance transformation, such as data management systems, digital platforms, and analytical tools; develop policies and procedures that facilitate the use of digital technology in governance and policy implementation; and encourage collaboration and synergy between units/work units in the organization to optimize the use of digital technology Pūraitė & Shmorgun, [10]. Through comprehensive capacity-building efforts, the government and other stakeholders can prepare themselves to optimize the benefits of digital technology, overcome obstacles, and achieve sustainable development goals in the context of better public governance.

Therefore, this article aims to outline the strengths of capacity building and the problems associated with the lack of capacity in the context of governance transformation and policy implementation in the digital era and to propose innovative and sustainable capacity-building strategies as fundamental solutions.

1.1. Governance Transformation In The Digital Era

In the digital era, fundamental changes have occurred in governance and policy implementation. Governance transformation refers to the systemic adaptation of the government to meet challenges and capitalize on opportunities presented by advances in digital technology Shin et al., [11]. This includes changes in the way decisions are made, public services are delivered, public participation is encouraged, and interactions between the government, private sector, and civil society. Digital technologies provide faster and wider access to data and information in decision-making Shankaranarayanan, [12]. In the transformation of governance, decision making is driven by sophisticated data analysis and smart predictions. Evidence-based approaches and data-driven decision-making are becoming increasingly important, helping governments make more effective and efficient decisions Gillson et al., [13].

Digital technology enables governments to provide more responsive, affordable, and innovative public services Review [14]. For example, with the adoption of e-government, people can access online services, reduce bureaucracy, and improve service quality. In addition, technologies such as big data, artificial intelligence, and the Internet of Things (IoT) can be used to improve the monitoring and management of public resources such as transportation, energy, and the environment Benke, [15]. Digital technologies provide opportunities for the public to participate in decision-making and policy planning Zhang et al., [16]. Through participatory platforms and social media, citizens can provide

input, lodge complaints, and collaborate with the government to formulate policies that are more inclusive and responsive to their needs Zu et al. [17]. This strengthens the principles of democracy, transparency and accountability. Governance transformation also involves closer collaboration between the government, the private sector, and civil society. Digital technologies facilitate effective partnerships and interactions between these entities. Governments can collaborate with the private sector to utilize the expertise and technological resources of companies. Additionally, civil society can participate in policy monitoring and evaluation through participatory platforms. Thus, the impact of digital technology on transforming governance is significant Armstrong and Butcher, [18]. These changes have created new opportunities to increase efficiency, improve service quality, and strengthen public participation. However, there are challenges that need to be overcome, such as unequal access to technology, personal data protection, cybersecurity, and cultural transformation within government organizations.

1.2. Capacity Building in the Digital Era

Capacity building is an effort to increase capacity that did not exist previously. Its orientation is to replace old values with new ones to achieve common goals in the organization Squires, [19]. Capacity building is a process of doing something or a series of movements, multilevel changes in individuals, groups, organizations, and systems to strengthen the adjustment ability of individuals and organizations so that they are responsive to the existing environment to be able to respond to a dynamic environment Karam et al., [20]. Capacity building requires the design of strategies for organizations to determine priorities and resources.

Capacity building encompasses strategies that must be implemented to improve the efficiency, effectiveness, responsiveness, and performance of the government. Capacity building is an important key to facing the challenges of governance transformation and policy implementation in the digital era Aftab et al., [21]. Capacity building refers to the development of the skills, knowledge, and capacities necessary for governments and related actors to effectively utilize digital technologies in governance and public policy. Capacity building plays an important role in the current digital era, where the transformation of governance requires a deep understanding of digital technology and the ability to manage it properly Vial, [22]. Through capacity building, government employees and relevant stakeholders can develop the competencies and knowledge required to understand the concepts and applications of digital technology in the context of governance and public policy. Capacity building also helps ensure that

stakeholders are trained using the relevant hardware, software, and data analysis tools. This enables the government to effectively collect, manage, and analyze data to make better decisions and design more effective policies.

By building the right capacity, governments and stakeholders can improve operational efficiency and decision-making processes Zavadskas and Turskis [23]. They can adopt best practices for the use of digital technology to automate routine tasks, improve productivity, and encourage innovation in public services. Capacity building also helps identify new opportunities offered by digital technology to improve the quality and accessibility of public services.

The digital era is characterized by rapid and complex changes. In the face of these challenges, capacity building helps governments and stakeholders to become more resilient and adaptive. They can develop the ability to anticipate and adapt to technological changes, manage cybersecurity risks, and overcome organizational barriers that may arise during the governance transformation process. Capacity building also includes developing skills to collaborate and engage relevant actors in governance and the public policy ecosystem. In a digital age driven by connectedness, close collaboration between the government, private sector, civil society, and citizens is becoming increasingly important. Capacity building helps build the communication capacity.

1.3. Dimensions of Capacity building

The dimension of Human Resource Development is important to create a competitive advantage for HR and organizations from their competitors (Academy, 2016). Human resource development is considered a learning program that is deliberate and implemented within a certain time with the intermediate goal of developing HR knowledge, attitude competencies, motivation, and behavior, and with the ultimate goal of developing HR performance and organizational performance. In this context, they can be grouped into educational training and development.

The dimensions of Strengthening Organizational Capacity can be studied from the theory of capacity building proposed by Grindle, which includes dimensions of management governance, incentive systems, facilities, leadership, organizational culture, communication, and organizational structure. In this context, the researcher highlights 1) facilities that are everything that is occupied and interested by employees, both in direct relation to work and for the smooth running of the work so that the work can be done properly. 2) Leadership which is the ability to gain followers. Leadership is a process

by which one individual influences other group members to achieve defined groups or organizational goals. 3) Organizational culture must be owned by an organization or government agency tasked with providing the best service to the community. 4) Communication, which is broadly every form of behavior of a person, both verbal and nonverbal, responded to by others. Every form of behavior expresses a certain message; therefore, it is also a form of communication.

From this perspective, Institutional Reform is interpreted as an effort to improve or change the structure and culture that is seen as an obstacle to progress. Thus, it is clear that institutional reform is a measured action to change something that hinders or blocks progress, as Miftha Thoaha said that Institutional Reform is a strategic change made to create reforms in terms of regulations and partnerships Thoaha, [24].

2. Methods

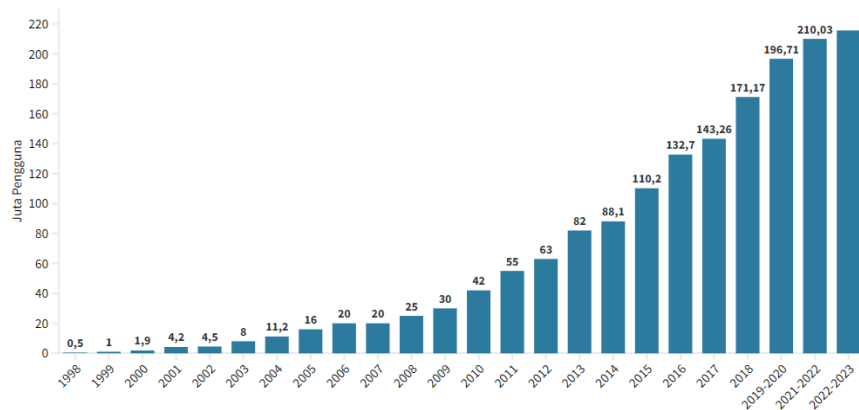
This study describes the power of capacity building in governance transformation and policy implementation in the digital era using descriptive qualitative methods. Document analysis was used to obtain a more detailed analysis. These transformation governance documents communicate policies related to digital governance in Indonesia and surrounding issues. The method used in this document analysis consisted of selecting the subject of analysis, identifying documents, collecting relevant documents, compiling research results, and interpreting the findings of this research. The first step is to select the subject to be analyzed by selecting research questions, theoretical background, and research methods to meet the objectives of this research, namely, new insights into the power of capacity building in policy transformation and implementation in the digital era in Indonesia. The next step is to identify and collect documents related to and required for this research.

Data were collected from the National Planning and Development Agency, namely the National Medium-Term Development Plan (RPJMN) 2020-2024 regarding human resource development and infrastructure development in terms of information and communication technology (ICT) related to digital transformation and policies that support digital transformation. The next step was to analyze the text by performing data extraction and insertion. Data extraction was carried out at the stage of collecting RPJMN documents and regulations, while data insertion was carried out when identifying regulations related to digital transformation at the ministerial level. The final step is to analyze the existing data and provide conclusions and recommendations for further research.

3. Results and Discussion

3.1. Quality of Human Resources

In the context of governance transformation in the digital era, human resource development is one of the important aspects in dealing with governance transformation in the digital era. Indonesia needs quality human resources and is supported by superior infrastructure, so that it is competitive and can survive and advance. Facing the digital era, have made efforts to develop human resources (HR) to address the challenges of digital technology. Some of the initiatives that have been carried out are training and digital skill development programs for government employees and the general public. For example, the Indonesian government has launched the "1000 Digital Talent Scholarship" program, which aims to train thousands of human resources in digital technology. The program provides opportunities for individuals to acquire the skills needed in the digital era, such as data analytics, artificial intelligence (AI), and app development. This is also supported by the large number of Internet users in Indonesia, which has reached 215.63 million people in the period 2022-2023. Figure 1 shows the trend of Internet users in Indonesia, which increased significantly from 1998 to January 2023.



Source: *DataIndonesia.id, 2023*

Figure 1: Internet Users in Indonesia (1998-2023).

The Indonesian government is supporting and accelerating the improvement of the quality of human resources by implementing various programs to address the challenges of the digitalization era.

Education and training programs include training in areas such as data analytics, artificial intelligence, application development, cybersecurity, and information technology management. The government has also encouraged collaboration with universities

TABLE 1: Programs to Improve the Quality of Human Resources Facing the Digital Era in Indonesia.

No.	Programs	Destination
1	Education and Training conducted by all stakeholders	Strengthen the individual's ability to deal with technological change and utilize it effectively in the task.
2	Collaboration with Universities and Industry	Develop a curriculum that is relevant to market needs and facilitate internship opportunities and research collaborations
3	Digital Talent Scholarship	Increase the number of skilled human resources in the field of digital technology and encourage the development of digital industries in Indonesia
4	Digital Literacy Program:	Helping people to actively participate in the digital age and understand the potential and risks associated with the use of digital technology.

Source: Researcher Data Processing, 2023

and industries and tailored to various real needs in the industrial world and society. Furthermore, the "1000 Digital Talent Scholarship" Program provides opportunities for interested individuals to obtain scholarships in the field of digital technology. Through this program, individuals can participate in intensive training programs and become certified in various digital skills needed in the digital era. In addition to technical skill development, it is important to improve digital literacy among the general public. For this purpose, the government has launched a digital literacy program that can equip people with basic knowledge of digital technology, safe Internet use, and the use of digital technology in everyday life. However, some of the findings that are important to know in this human resource development effort are shown in Table 2.

TABLE 2: Shortcomings in improving the quality of human resources.

No.	Topic	Description
1	Skills	Less
2	Access to information in various regions	There is inequality
3	Government-Higher Education and Industry Collaboration	Less
4	Involvement of women and marginalized groups	Less

Source: Research Data Processing, 2023

Although efforts have been made in HR development (Table 1) in the context of transforming governance in the digital era in Indonesia, several things still need to be done to strengthen aspects of HR development in relation to the data presented in Table 2, among others.

1. Efforts should be made to increase the accessibility and availability of digital technology training across Indonesia. This can be achieved by developing more online or distance training programs that can be accessed by individuals in different regions, especially in remote or marginalized areas.
2. Closer collaboration between education and industry must be enhanced. Universities and educational institutions should seek to establish partnerships with relevant companies and industries to ensure that their curricula are aligned with labor-market needs. Industry can provide input on the skills and knowledge needed as well as play a role in providing internship opportunities, work placements, or collaborative projects for students and graduates.
3. Human resource development must focus on relevant skills such as critical thinking, collaboration, problem solving, creativity, and digital literacy. In addition to technical skills, skill development in the digital age helps individuals deal with rapid and complex changes.
4. HR development in the digital era is not a one-off process but requires a continuous and permanent approach. The government, educational institutions, and industries must ensure that there are ongoing programs and initiatives to train and develop HR skills in the face of ever-evolving technological changes.
5. When developing human resources, it is important to pay attention to inclusivity and diversity. This ensures fair and equitable access to training and education in digital technology, as well as encourages participation from various groups of people, including women, young people, and other marginalized groups.

With adequate human resource development, both at the individual and institutional levels, it is expected that the government and society will face the challenges of transforming governance in the digital era more effectively. Continuous and sustainable human resource development is an important long-term investment for optimizing the benefits of digital technology in government and public policy.

3.2. Efficiency of Public Service Delivery

Technology has the power to significantly improve the quality of people's lives and economic growth, and create opportunities for individuals, companies, and governments related to public services. Currently, the government's efforts in terms of public service innovation involve the digitization of governance. In the context of service transformation, it is not easy to make changes, especially in the public sector, so the demands of this change need to be responded to and committed by decision makers.

The findings of this study demonstrate that the use of online registration systems in public services results in significant efficiency. The public can register independently through an online platform without having to physically visit the government office. This reduces the queues and time required in the registration process. Furthermore, the use of electronic payment methods or e-payments has proven to increase the efficiency of public services. With online payment systems such as mobile banking or digital payment applications, the payment process can be completed instantly and without the need to spend cash. This reduces the time and effort required for payments and avoids the possibility of errors or loss of money. The integration of data and information among various government agencies through electronically connected systems improves the efficiency of public services. For example, when a citizen submits an application that requires information from several agencies with data integration, the service officer can access the information quickly and avoid repetition of form-filling or document collection. Additionally, government responsiveness to public input and feedback through social media or community participation platforms can improve the efficiency of public services. By utilizing digital technology to respond to public aspirations, the government can prioritize service improvements and increase public satisfaction. However, the digitalization of public services has not been implemented optimally. This is described in Table 3.

Table 3 shows that one of the main obstacles to the implementation of digital governance is the lack of strong leadership and political commitment from authorities. Strong leadership is needed to drive the adoption and implementation of digital technologies at all levels of the government. Without sufficient political support, digital governance implementation can face obstacles in terms of strategic decision-making, resource allocation, and inter-agency coordination. Infrastructure readiness is an important factor in the implementation of digital governance. Adequate infrastructure, such as fast and reliable Internet networks, telecommunications accessibility, and adequate data security, are prerequisites for supporting the implementation of digital technology. The

TABLE 3: Constraints to the implementation of digital governance in Indonesia.

No.	Constraints	Strategy
1	Leadership and political commitment	Encourage strong political commitment to support digital governance.
2	Budget Availability	Increase adequate budget allocation for digital technology development and implementation.
3	Infrastructure readiness	Increase investment in technology infrastructure, including the development of a fast and reliable internet network.
4	Digital divide	Adopt an inclusive approach and empower communities through digital training and education programs.

Source: Research Data Processing, 2023

obstacle that may arise is inequality of infrastructure in various regions, especially in rural and remote areas. The main obstacle in implementing digital governance is the digital divide between urban and rural communities as well as more marginalized social groups. Limited access to digital devices, limited digital literacy, and lack of technological skills can be barriers to the utilization of digital public services. In the implementation of digital governance, it is important to ensure inclusivity and accessibility for all levels of society.

The efficiency of digital public service delivery is closely related to the dimensions of strengthening organizational capacity and institutional reform proposed by Grindle. In an effort to strengthen organizational capacity, the Indonesian government has adopted various initiatives to strengthen government institutions' abilities to deal with governance transformation in the digital era. An example is the establishment of the Ministry of Communication and Information Technology, which is responsible for managing policies and programs in the field of communication and information technology. Kemenkominfo plays an important role in encouraging the adoption of digital technology in various sectors, including the government. Additionally, several government agencies have undertaken digital transformation by implementing information systems and digital technology to improve efficiency and transparency in the delivery of public services.

To transform governance in the digital era, Indonesia has also implemented institutional reforms to accommodate the changes brought about by digital technology. An example is the establishment of the National Cyber and Crypto Agency (BSSN), tasked with protecting and securing government information systems. The BSSN plays an important role in developing cybersecurity policies and providing guidelines to government agencies regarding data management and information security. In addition,

several regulations and policies have been updated to accommodate the development of digital technology, such as electronic information and transaction Law (UU ITE) that regulate the use and protection of digital data.

4. Conclusion

Governance transformation and policy implementation in the digital era are complex challenges requiring a holistic approach. The theory of capacity building, which includes the dimensions of human resource development, organizational capacity strengthening, and institutional reform, is important for facing this challenge.

In the human resource development dimension, it is necessary to improve the skills and knowledge related to digital technology of workers in the public sector. The training and development of employees is an important strategy to ensure that they can effectively utilize digital technology in their tasks. In addition, the establishment of partnerships with educational institutions and the private sector can be an effective measure to address the shortage of skills related to digital technology.

The dimension of strengthening organizational capacity is that changes in organizational culture are key to dealing with governance transformation in the digital era. Encouraging a work culture that is adaptive, innovative, and open to technological change is important. In addition, the use of policies and management practices that support innovation and digital technology can strengthen organizational capacity in the face of such transformations. Meanwhile, in the institutional reform dimension, it is important to evaluate and make changes to the existing institutional structures and processes. Increasing collaboration between the government, private sector, and civil society is an important strategy in facing the challenges of transforming governance in the digital era. The establishment of specialized institutions, inter-agency cooperation, and civil society participation in the policy process are relevant steps to achieving the necessary institutional reforms.

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