

Government Transformation in the 5.0 Era: Challenges and Adaptation Strategies

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ABSTRACT

Government Transformation in the 5.0 Era brings significant challenges that require appropriate adaptation strategies to meet increasingly complex public expectations and evolving technology. In the face of these changes, the government needs to adopt a strategy that allows people to interact directly through social media, mobile applications, and other online platforms. The government needs to prioritize investment in reliable and secure digital infrastructure to support the efficiency of public services and improve service accessibility for all levels of society. Through literature studies, this article presents an in-depth analysis of the conceptual framework and relevant findings related to government transformation. By strengthening the understanding of adaptation challenges and strategies, this article is expected to contribute to guiding effective policy measures and practices to support government transformation in the 5.0 Era. By adopting strategies, the government can overcome the challenges faced in government transformation in the 5.0 Era and take advantage of the opportunities offered by technological advances to provide better and inclusive public services for the community.

Keywords: Government Transformation; Era 5.0; Challenge; Adaptation Strategies;

ABSTRAK

Transformasi Pemerintahan di Era 5.0 membawa tantangan yang signifikan sehingga memerlukan strategi adaptasi yang sesuai dalam memenuhi ekspektasi publik yang semakin kompleks dan teknologi yang terus berkembang. Dalam menghadapi perubahan ini, pemerintah perlu mengadopsi strategi yang memungkinkan masyarakat dapat berinteraksi secara langsung melalui media sosial, aplikasi seluler, dan platform daring lainnya. Pemerintah perlu memprioritaskan investasi dalam infrastruktur digital yang handal dan aman untuk mendukung efisiensi pelayanan publik dan meningkatkan aksesibilitas layanan bagi semua lapisan masyarakat. Melalui studi literatur, artikel ini menyajikan analisis mendalam mengenai kerangka konseptual dan temuan-temuan relevan yang berkaitan dengan transformasi pemerintah. Dengan memperkuat pemahaman tentang tantangan dan strategi adaptasi, artikel ini diharapkan dapat memberikan kontribusi dalam memandu langkah-langkah kebijakan dan praktik yang efektif untuk mendukung transformasi pemerintahan di Era 5.0. Dengan mengadopsi strategi-strategi, pemerintah dapat mengatasi tantangan yang dihadapi dalam transformasi pemerintahan di Era 5.0 dan memanfaatkan peluang yang ditawarkan oleh kemajuan teknologi untuk memberikan pelayanan publik yang lebih baik dan inklusif bagi masyarakat.

Kata Kunci: Transformasi Pemerintahan; Era 5.0; Tantangan; Strategi Adaptasi;

Article History:

Received; 01-05-2023; Revised; 22-06-2024; Accepted; 20-07-2024

INTRODUCTION

Government Transformation in the 5.0 Era presents a new face of how the government manages resources, provides services, and interacts with the community in an increasingly



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complex digital era. The 5.0 era is a continuation of the previous digital era, with a greater emphasis on the integration of advanced technologies such as artificial intelligence (AI), quantum computing, the Internet of Things (IoT), and *blockchain* technology. This transformation introduces a new paradigm in government administration that combines technological sophistication with more personalized and responsive services.

One of the main challenges in facing this transformation is the digital divide, which is an increasingly sharp gap between people who have the ability to access and use information and communication technology (ICT) and people who have difficulty accessing (failing to understand technology). This challenge requires an inclusive adaptation strategy to ensure that government transformation does not deny people who are not ready to adapt to technological sophistication when they access public services. In addition, the issue of data privacy and security has become increasingly important with the increasingly widespread use of technology in providing public services.

Based on several existing literature, some of the factors that are obstacles in the implementation of digital government in Indonesia are:

1. Unclear standardization in the implementation of digital government and lack of socialization about the implementation of ICT in a real and ideal way for collaboration in local governments related to the sustainability of policy innovation.
2. Human resources who are not qualified in managing digital government business processes so that it has an impact on the gap between internal government bureaucrats.
3. The network of technology and information infrastructure is not evenly distributed in the regions (local governments).
4. Lack of community involvement and digital literacy related to the use of ICT, especially among residents in the lower middle group.
5. Lack of commitment from top-level policymakers in local governments to support the implementation of digital government, hindering collaboration with stakeholders, including citizens.
6. An organizational culture that does not support change, and a culture of low knowledge and information sharing, especially between government agencies (Setyasih, 2022).

Governance in the 5.0 Era is also faced with increasing public demands for transparency, accountability, and participation. An increasingly Intense digitally connected expects the government to be able to provide services that easy Fast, efficient, and accessible through multiple platforms. Therefore, the government must be able to adopt a strategy that allows The public can interact directly with the government through social media, mobile apps, and other online platforms (Tulungen et al., 2022a). There are several adaptation strategies that can be implemented by the government in the 5.0 Era, namely: 1) Increasing Access and Digital Literacy 2) Use of Smart Technology 3) Transparency and Accountability 4) Data Security 5) Partnership with the Private Sector and Civil Society (Agung Wicaksono, 2015).

Through the right adaptation strategy, the government can take advantage of the potential of transformation in the 5.0 Era to improve the quality of public services, improve bureaucratic efficiency, and strengthen the Public participation in the decision-making process in all fields including political, social, economic, educational, legal fields (Abidah et al., 2022). This is a step wise in building a responsive, inclusive, and sustainable government in the ever-evolving



digital era. The 5.0 era, which is marked by the integration of digital technology with human life as a whole, has a major impact on various aspects of life, including the government. This transformation requires the government to adapt quickly and integrated to remain relevant and effective in organizing public services.

This article discusses the challenges and adaptation strategies of the government in facing the 5.0 era. This is in line with previous researchers who have studied the problem of government transformation in the 5.0 era, starting from researchers (Tulungen et al., 2022b) who said that the success of digital transformation in government is highly dependent on the quality of digital leadership and the ability to integrate technology effectively. (Agung Wicaksono, 2015; Apud et al., 2023; Cahyono et al., 2023; Pangandaheng et al., 2022). In this article, the author presents an analysis of the challenges and adaptation strategies during the government transformation period in the 5.0 era.

RESEARCH METHODS

The research method used in the research entitled "Government Transformation in the 5.0 Era: Challenges and Adaptation Strategies" is a literature review. Literature review is a research method that involves the collection, evaluation, and synthesis of scientific papers that have been published related to the topic being researched. The purpose of a literature review is to identify trends, gaps in research, and provide a thorough understanding of a particular subject based on existing research.(institute-academic-development.ed.ac.uk, 2024) In this study, literature review was carried out by filtering scientific articles using the Publish or Perish application. *Publish or Perish* is a tool used to search and analyze scientific literature from various databases such as Google Scholar, Crossreff. (Harzing -, 2016) This application assists researchers in identifying relevant articles, evaluating the impact of research, collecting data by downloading metadata from the articles found. The keywords used in this study are Government Transformation; Era 5.0. The research was conducted with a focus on articles published from 2010 to 2024. This time frame was chosen to ensure that the research covers the latest developments and current trends related to government transformation in the context of Era 5.0. The article filtering process is carried out with the following steps: 1) The initial search uses the keywords that have been defined in the Publish or Perish application to find relevant articles. 2) The articles found were evaluated based on their relevance to the topic, quality, and contribution to the understanding of government transformation in the 5.0 Era. 3) The selected articles are then analyzed to identify the challenges and adaptation strategies of the government in the 5.0 Era. Information from various sources is combined to provide a thorough and in-depth picture.



DISCUSSION

Government Challenges in the 5.0 Era

Changing the Public Service Paradigm

In today's digital era, people have high expectations for public services that are easier, faster, more efficient, and oriented to public needs. Therefore, the government uses technology to improve the quality of public services. The paradigm shift in public services shows a significant shift in people's expectations and demands for services provided by the government. This is reflected through the provision of services that are faster, more efficient, and oriented to public needs. The public has higher expectations for public services as a result of technological advances and positive experiences when accessing private services. Currently, people want services that are fast, accessible, and can be personalized in line with their needs.

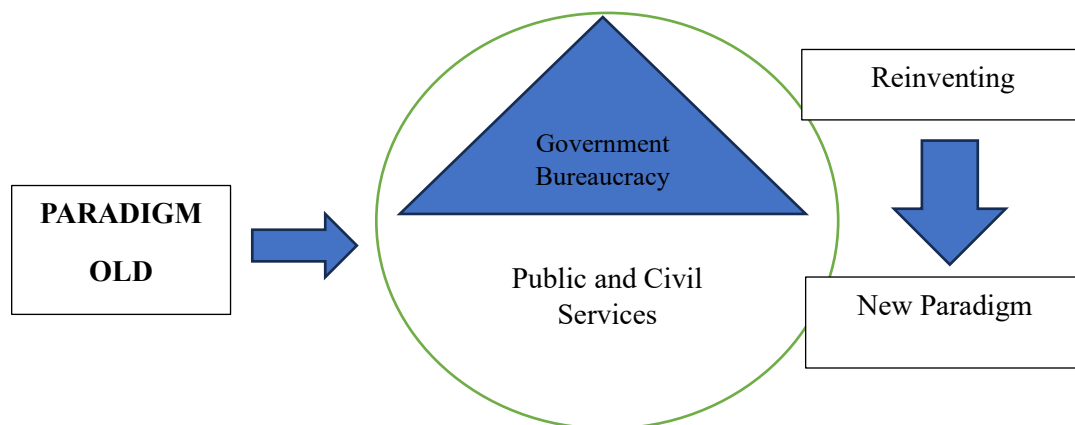


Figure 1. Government Bureaucratic Paradigm

Source: (Hi Ibrahim & Supriatna, 2020)

Figure 1. It shows that it is a reflection of the shift from traditional bureaucracy to a more modern and adaptive government model, which is very relevant to the transformation needed to face challenges and take advantage of opportunities in the 5.0 Era.

In an era where information can be accessed quickly through technology, people expect a quick response from the government to people's requests and complaints. The community wants a more efficient and transparent process in obtaining public services. The government is expected to utilize information and communication technology (ICT) to improve the quality of public services through the use of mobile applications, online portals, and automation systems to facilitate the access and use of services by the public.

While the use of technology can improve efficiency, the government must also ensure that public services remain accessible to all levels of society. This requires strategies to address the digital divide and ensure that technology solutions are accessible to everyone, including people who do not have access or sufficient technology skills. When adopting technology for public services, it is important for governments to pay attention to the protection of personal data and people's privacy. Appropriate data security measures must be implemented to protect



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sensitive information and build public trust in the use of technology in the implementation of public services. The government also needs to invest in training and developing employee skills in managing and utilizing technology in public services. It involves not only technical skills, but also an understanding of the needs and expectations of the community and the ability to communicate and interact effectively with the community.

The government can direct efforts to change the paradigm of public services in meeting the demands and expectations of the public in the ever-evolving digital era. By utilizing technology wisely and paying attention to the needs and interests of the community, public services can become more responsive, efficient, and oriented to individual needs.

Data Security and Privacy

With more and more data being collected and used by governments, data protection and privacy are challenges that must be seriously addressed. As technology develops, governments collect and use increasingly large volumes of data for a variety of purposes, including the provision of public services, policy analysis, and decision-making. This creates new challenges in managing and protecting data appropriately.

Many jurisdictions and regulations related to data security and privacy are still uneven or inadequate in keeping up with technological developments. This creates legal uncertainty for the government in managing and protecting data from the public and the data used by the public. The more sophisticated the technology, the more complex the cyber security threats faced by the government. Hacking, malware, and other attacks can lead to theft of sensitive data or disruption in the administration of public services. This indicates the importance of robust data security.

The government needs to develop strong and comprehensive regulations related to data security and privacy that are in line with technological developments. These regulations should include strict safety standards, security incident reporting requirements, and strict sanctions for violations. Governments must invest in advanced security technologies to protect people's data from cyber threats. This includes the use of data encryption, network security monitoring, and employee training in cyber security awareness.

The government must be transparent in the management and use of data, and be accountable for the security and privacy of public data. This includes establishing clear data use policies, transparent reporting on data use, and mechanisms for receiving input and complaints from the public.

Thus, the government can take the necessary steps to overcome the data security and privacy challenges faced in the collection, management, and use of data in the implementation of public services. By maintaining robust data security and respecting individual privacy, governments can build public trust and maintain the operational integrity of society in an increasingly connected digital era.

Technology Gap

Not all people have sufficient access or understanding of technology. Therefore, the government needs to ensure that digital transformation does not leave anyone, including people who are marginalized due to their helplessness in keeping up with rapid technological



developments. Currently, there is still a gap in access to technology in society. Much of this gap is due to differences in technology infrastructure across different regions, income levels, and physical accessibility. People who live in rural areas or who have low incomes may face difficulties in accessing necessary technological devices and services.

A total of 23 villages spread across 13 sub-districts of Wonogiri Regency have not been reached by the mobile phone network due to the geographical conditions of the remote and hilly villages. This has an impact on mobile networks that are difficult to enter the region. Residents in general have difficulty getting cellular signals and are only at certain points. Internet access through cellular provider signals is also very limited. This is said by Tarjo, Head of Informatics and Cryptography of the Communication and Informatics Office or Diskominfo Wonogiri (Praditia and Suharsih, 2023).

The condition of these villages is on the island of Java, precisely Central Java, where people should easily reach or access technology compared to remote villages outside Java. However, this reality makes it sad about the fact that internet access is still difficult to reach in today's modern era. In addition to the access gap, the technology literacy gap is also a serious problem. Not all individuals have enough understanding of technology and how to use it effectively. This can be an obstacle in utilizing digital public services or keeping up with changing technological developments.

The government needs to develop education and training programs that aim to increase technological literacy among the community. The program can include training in the use of technology devices and applications, as well as an understanding of digital security and privacy. Governments also need to invest in expanding access to technological infrastructure, especially in rural or underdeveloped areas. This can be done through subsidy programs or cooperation with the private sector to build a wider and more affordable telecommunications infrastructure.

In designing and implementing digital public services, the government must ensure that these services can be accessed and utilized by all levels of society, including people with limited access or technological literacy. This can be done by providing various access options, such as offline services or technical assistance for people who need them. Thus, the government can take the necessary strategic steps to reduce the technology gap in society and ensure that digital transformation takes place in an inclusive and sustainable manner. In this way, all levels of society are no exception to be able to adapt and feel the benefits offered by technological advances in the implementation of public services.

Changes in Work Patterns

Technology allows for the adoption of more flexible work patterns, such as working from home or remotely. The government needs to adjust its policies and work procedures to support these changes. Technological advancements have allowed for the adoption of more flexible work patterns, where employees can work from home or remotely using communication and collaboration technologies such as video conferencing, instant messaging applications, and various other digital productivity tools. Flexible work patterns can improve employee efficiency and productivity, and also allow people to access services in a comfortable environment and according to individual preferences. It can also minimize the time spent on travel and allow for collaboration across geographical boundaries without physical limitations.



The government needs to develop appropriate policies and work procedures to support the adoption of flexible work patterns. This includes setting standards for when and how employees can work from home, rules related to the use of technology tools and applications, and mechanisms for effectively monitoring and evaluating employee performance. Governments must invest in the procurement of the necessary technological infrastructure to support flexible work patterns, including stable and secure internet connections, and adequate productivity tools and applications. This is to ensure that employees have adequate access to work remotely effectively (*remote working*). With the change in work patterns, the government needs to build an organizational culture that supports the adoption of flexible work patterns, including the promotion of values such as trust, collaboration, and individual responsibility in achieving organizational goals, regardless of the physical location of the work.

The government can take the necessary steps to adjust work policies and procedures that are in line with technological developments and changes in work patterns that occur. The government also needs to encourage the public to take advantage of the potential for productivity and efficiency offered by flexible work patterns in the ever-evolving digital era.

Government Adaptation Strategy

Digital Infrastructure Improvement

Investment in reliable and secure information technology infrastructure is key to improving the quality of public services. Improving information technology infrastructure is the key to the efficient implementation of public services. This includes investments in fast and reliable internet networks, robust data centers, cutting-edge hardware, software that supports data management and public service applications.

Reliable digital infrastructure allows the government to provide online public services that can be accessed by the public anytime and anywhere. This has an impact on increasing the accessibility of services and expanding the scope of services for people living in remote or hard-to-reach areas. Governments need to make sustained investments in digital infrastructure to ensure that public services remain relevant, adaptive and responsive to evolving needs. This includes adequate budget allocation for the construction and maintenance of digital infrastructure as well as innovative technology research and development.

Reliable digital infrastructure must be equipped with strong security measures to protect sensitive data and people's privacy. This includes the use of data encryption, network security monitoring, and compliance with applicable security regulations and standards. The government can take advantage of partnerships with the private sector in the development of digital infrastructure such as cooperation in the construction of telecommunication networks, the provision of cloud services, or the development of information technology applications and systems.

Thus, the government can take the necessary steps to improve digital infrastructure so that it can support efficiency and improve the quality of public services. With reliable, safe, and affordable infrastructure, the government can meet people's expectations and demands for better public services in the increasingly massive digital era.



Strengthening Privacy and Data Security Policies

The government must develop comprehensive data protection and public privacy policies and ensure compliance with applicable regulations. This includes the establishment of strict security standards, secure data management procedures, and rules related to the use and disclosure of data by government agencies.

It is important for governments to ensure compliance with applicable regulations related to data privacy and security, such as personal data protection laws and sector-specific regulations governing the use of data by government agencies. Governments must ensure that government agencies comply with applicable data privacy and security regulations and enforce the law against violations that occur (the importance of compliance and law enforcement). This includes providing sufficient resources for oversight and law enforcement, as well as strict enforcement of sanctions against proven violations.

Governments must also be transparent in the management and use of data, and be accountable for the security and privacy of public data. This can be done by providing clear information about privacy policies and practices, as well as mechanisms for monitoring and reporting unauthorized or unethical use of data. The government should also develop awareness and education programs to increase public understanding of the importance of data privacy and security. This includes public campaigns, training of government employees, and the provision of educational resources on safe practices in the use of technology.

As such, governments can take the necessary steps to strengthen public data privacy and security policies, and ensure compliance with applicable regulations. In this way, the government can guarantee public trust in data management and the protection of individual privacy in an increasingly connected digital era.

Increasing Digital Literacy

Programs to increase understanding and skills in the use of technology must be carried out massively so that people can experience the benefits of digital transformation. The government should expand programs that aim to increase understanding and skills in using technology among the public. This includes training on the use of computer hardware and software, internet navigation, cyber security, and the use of online applications and services. The increase in digital literacy was also conveyed by the Special Staff of the Minister of Communication and Information for Political Communication, Philip Gobang.

The target of the Ministry of Communication and Information Technology (Kominfo) in 2024 is to reach 50 million Indonesians in the National Movement for Digital Literacy (GNLD) program. The purpose of this program is to improve the ability of the community to master digital technology and the community also has the opportunity to gain a correct understanding of the use of advanced technology in the digital era. It is hoped that in the future mastery of digital literacy will be beneficial for the community in developing their potential and creativity (Pipito 2022).

Increasing digital literacy aims to ensure that all levels of society, including those with limited access or no prior technological experience, can benefit from digital transformation. The program should be designed to be inclusive and accessible to everyone without exception. The government must ensure that digital literacy improvement programs are easily accessible



to all people, including people living in remote or low-income areas. This can be done through the provision of free online courses, the existence of community resource centers, or hands-on training in areas in need.

The government can collaborate with the private sector and non-profit organizations in organizing digital literacy improvement programs. Cooperation can be realized in the form of providing internet access, distributing cheap computer equipment, as well as providing funds and support for training and education. It is important for governments to routinely and regularly evaluate and monitor the effectiveness of existing digital literacy improvement programs through measuring participation levels, understanding, and skills acquired and identifying areas that need improvement or improvement.

Flexibility in Work Patterns

The government must develop policies that support more flexible work patterns, but still prioritize effectiveness and accountability. In the digital literacy program development program, the government must expand programs that aim to increase understanding and skills in using technology among the public. This includes training on the use of hardware and software, internet navigation, cyber security, and media literacy to help individuals manage information wisely. The digital literacy program is designed with the aim of being accessible to all levels of society, including people who have limited access or technological skills. This can be done through the provision of physically and financially accessible resources and training, as well as the adaptation of programs to meet specific needs.

In support of relevant skills, digital literacy programs must be designed to provide skills that are relevant to the needs of society in the face of technological change, including paying attention to current technological trends, teaching the skills needed to work in the digital era, and providing an understanding of how technology can be used to improve the quality of life of the community. To realize the program, the government can collaborate with the private sector and NGOs to expand the reach and effectiveness of digital literacy programs. The program includes providing access to resources and training, collaboration in program implementation, and leveraging existing digital platforms to reach a wider audience.

It is important for the government to continue to measure the impact and evaluate the effectiveness of existing digital literacy programs. This allows for the necessary adjustments to improve the quality and relevance of the program, as well as ensuring that the investments made deliver the expected results.

Thus, the government can take the necessary steps to expand the community's digital literacy program so that the community as a whole can experience the benefits of digital transformation. By increasing understanding and skills in the use of technology, people can be better prepared to face challenges and take advantage of the opportunities offered in the increasingly massive digital era.

CONCLUSION

Government transformation in the 5.0 Era brings various challenges that include technology gaps, data security, changes in work patterns, and the need to increase digital literacy. To overcome these challenges, governments need to adopt appropriate adaptation



strategies. The government must prioritize investment in reliable and secure digital infrastructure to support the efficiency of public services and improve service accessibility for all levels of society. Strong and comprehensive policies on data privacy and security must be developed and implemented to protect people's sensitive data and ensure compliance with applicable regulations. Digital literacy programs must be expanded to improve people's understanding and skills in using technology so that people can benefit from digital transformation. The government must adjust work policies and procedures to support changes in more flexible work patterns, including remote working or remote working, so as to increase employee efficiency and productivity. By adopting these strategies, the government can overcome the challenges faced in government transformation in the 5.0 Era and take advantage of the opportunities offered by technological advances to provide better and inclusive public services for society.

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