
Mechanistic and Organic Tensions in Government Digital Transformation: Managing Cascading Paradoxes

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Abstract:

Government digital transformation faces ongoing challenges because it must balance rigid organizational systems focused on efficiency and control with flexible systems that support innovation. This research develops a conceptual framework to analyze these fundamental tensions within Indonesia's multi-ministerial digital government programs. The study employs a conceptual theory-development approach, combining philosophical evaluation with a review of organizational theory, paradox theory, public administration, and cultural studies, illustrated through the case of Indonesia's Ministry of Communications and Digital Affairs (Komdigi) transformation. The research establishes a paradox framework encompassing five fundamental tensions: control versus autonomy, efficiency versus adaptability, accountability versus experimentation, standardization versus customization, and short-term versus long-term perspectives. The findings demonstrate how organizational contradictions cascade across multiple levels—from individuals to inter-ministerial coordination—with tensions becoming more complex at inter-ministerial levels due to differing structures, goals, and coordination mechanisms. The distribution of authority leads to decision-making fragmentation, temporal misalignment occurs when different teams operate at different times, and lack of clear attribution between ministries prevents collaborative experimentation. Indonesian cultural aspects, including high power distance, collectivism, uncertainty avoidance, and face-saving norms (jaga muka), determine how these contradictions appear and are managed, with local practices such as gotong royong offering culturally appropriate management mechanisms. The framework advances paradox theory by extending it to inter-organizational government settings where conventional resolution mechanisms fall short, while providing practical diagnostic tools for public-sector leaders to address tensions in complex bureaucratic environments undergoing digital transformation.

Keywords: digital government transformation; organizational paradox; mechanistic- organic tensions; inter-ministerial coordination; Indonesia

INTRODUCTION

Public sector organizations worldwide face digital transformation as their main organizational challenge. The public sector continues to experience elevated digital project failure rates despite receiving major funding for digital transformation initiatives (Mergel et al., 2019; OECD, 2020). The country of Indonesia demonstrates all the problems that digital transformation initiatives encounter. Digital transformation process in Indonesia requires multiple government agencies to work together because their responsibilities overlap but remain separate. Recently, the Ministry of Communications and Informatics underwent a transformation to become the Ministry of Communications and Digital Affairs, known as 'Komdigi', under Presidential Regulation No. 174/2024 (Republik Indonesia, 2024) and Ministerial Regulation No. 1/2025 (Kementerian Komunikasi dan Digital RI, 2025).

The new ministry must handle three main challenges which include maintaining regulatory control, developing innovative digital spaces, solving critical problems with cybersecurity and platform management and digital access inequality. The organization faces ongoing conflicts because it needs to handle multiple competing objectives through its complex organizational framework. Thus, the analysis of Komdigi's internal changes needs to be

combined with an examination of its operational environment to understand the existing institutional framework.

The digital government transformation in Indonesia involves multiple ministries working together through complex coordination processes. The Ministry of Administrative and Bureaucratic Reform (MenpanRB) serves as the main coordinator for e-government policy and standardization and evaluation across all government agencies according to Presidential Regulation 95/2018 on Electronic-Based Government Systems (SPBE). The organization responsible for SPBE architecture development and ministry digital maturity assessments through annual evaluations and national standard compliance.

While the Government Technology Agency (GovTech INA Digital) operates under MenpanRB supervision through state-owned enterprise Peruri according to Presidential Regulation 82/2023. It focuses on implementing integrated digital services, developing shared platforms such as National Single Sign-On authentication and integrated payment gateways, and providing technical capabilities to ministries. The organization operates as an implementation unit which maintains operational freedom but receives strategic direction from MenpanRB.

The establishment of Komdigi brings new elements to digital governance operations. The four Directorates General at Komdigi handle digital infrastructure management and cybersecurity protection and telecommunications oversight and digital space monitoring which creates overlapping authority with MenpanRB's e-government coordination and GovTech's platform development. The Coordinating Ministry for Economic Affairs plays a role in digital transformation through its economic-focused initiatives which include digital payment systems and e-commerce integration and digital investment facilitation. The current institutional structure produces multiple competing responsibilities which make it difficult to achieve coordination between different entities. Digital service implementation by ministries requires organizations to follow SPBE standards from MenpanRB and evaluation criteria and GovTech platform requirements and Komdigi infrastructure standards and coordinating ministry policy directions.

The three entities focus on different elements of digital transformation because MenpanRB concentrates on standardization and governance compliance, GovTech focuses on fast platform deployment while Komdigi handles technical infrastructure and security and coordinating ministries execute their policy objectives. The organizations' separate yet overlapping responsibilities generate paradoxical tensions cascade across organizational boundaries which increase system complexity beyond what single organizations can manage (Jarzabkowski, Lê, and Van de Ven, 2013). The five paradoxes in this paper experience different manifestations and management approaches because of the multi-ministerial operational environment.

The complete understanding of digital transformation remains elusive because it encounters multiple technical and managerial and political obstacles. The fundamental source of these problems emerges from opposing organizational views which treat businesses as unyielding machines or adaptable learning organizations (Taylor, 1911; Weber, 1947; Fayol, 1949; Senge, 2006; Weick, 1995; Morgan, 2006). Government agencies need to fulfill strict

accountability requirements yet they must also respond to demands for innovative and adaptable systems. The ongoing conflict between these opposing forces makes paradox theory an appropriate method to study their management instead of their elimination (Smith and Lewis, 2011).

Based on the background described above, this study aims to develop a conceptual framework that reveals the core conflicts occurring during government digital transformation initiatives by investigating four essential questions: how mechanistic and organic paradigms express themselves during transformation initiatives, what conflicting situations develop because of the opposing nature between these two paradigms, how Indonesia's traditional social structure with collectivist values impacts existing organizational conflicts, and what organizational design changes and leadership approaches should be implemented based on the research findings.

The theoretical benefit of this research is to advance paradox theory by extending it to inter-organizational government settings where conventional resolution mechanisms fall short, particularly through the lens of non-Western cultural perspectives such as Indonesia's hierarchy and collectivism. The practical benefit of this study is to provide a framework for public-sector leaders to balance conflicting demands, emphasizing modular standards, flexible performance measures, and the importance of managing paradoxes for sustained change, while also offering practical diagnostic tools for identifying and addressing tensions in complex public organizations undergoing digital transformation.

METHODS

Research Design

The research design of this study follows Jaakkola (2020) recommendations for conceptual theory-development. The research method uses existing knowledge to create new theoretical connections without requiring primary data collection. The research combines philosophical evaluation with a detailed review of organizational theory and paradox theory and public administration and digital governance and cultural studies. The research uses a case study to demonstrate the framework through an illustrative example. The Komdigi case functions as an example to demonstrate the framework instead of serving as evidence for validation. The theoretical propositions need future empirical verification to establish their practical value and stability across various organizational environments.

Analytical Framework Development

The framework was constructed through five iterative phases. First, this study examined the fundamental assumptions and ontological premises of mechanistic and organic organizational models, illuminating divergent perspectives on structure, control, adaptation, and learning. Second, these paradigms were integrated with paradox theory to investigate how conflicting, irreconcilable demands co-exist and are managed without complete resolution. Third, a typology of five major paradoxes relevant to government digital transformation was developed. Fourth, these conceptual paradoxes were translated into a practical five-stage diagnostic process helping leaders and practitioners identify and address tensions in complex public organizations. Finally, the framework was applied to the Komdigi case to evaluate its

consistency, explanatory power, and capacity to inform organizational practice in the Indonesian public sector.

The framework development process consisted of five consecutive stages. The research started by studying basic organizational principles of mechanistic and organic systems to reveal their opposing views about structural elements and control mechanisms and adaptive capabilities and learning processes. The research combined these two paradigms with paradox theory to study how opposing demands that cannot be resolved exist together in organizations. The research established a classification system which identified five essential paradoxes that affect government digital transformation initiatives. The research transformed theoretical paradoxes into a diagnostic framework which helps public organization leaders and practitioners detect and solve complex organizational conflicts. As final point, the research team applied the framework to Komdigi, demonstrate its ability to explain organizational behavior in the Indonesian public sector through the Komdigi case study.

Data Sources for Illustration

The research uses multiple sources to demonstrate the framework implementation at both ministry and inter-ministerial organizational levels. The research uses official Indonesian government policies as its primary sources including Presidential Regulation No. 95/2018 on Electronic-Based Government Systems (SPBE) and Presidential Regulation No. 82/2023 on Government Technology Agency (GovTech) and Presidential Regulation No. 174/2024 on Komdigi's organizational structure and Ministerial Regulation No. 1/2025. The research uses academic literature to study Indonesian public administration systems and digital governance obstacles and organizational coordination systems and bureaucratic traditions and public sector transformation patterns. Research on cultural dimensions including power distance and collectivism and uncertainty avoidance provides essential knowledge about how cultural elements influence organizational behavior in different settings and how paradoxical conflicts emerge in government institutions and between ministerial departments.

Analytical Approach.

The research analyzed Komdigi's organizational transformation by applying both mechanistic and organic organizational frameworks. The dual evaluation approach enabled researchers to detect oppositions between organizational control systems and learning adaptation mechanisms. The research investigated the agency's organizational framework and operational systems and leadership approach to understand how cultural elements affect the perception and management of organizational conflicts. The research team performed multiple rounds of coding and thematic analysis to achieve organizational alignment which improved both practical value and theoretical precision of the framework.

Limitations and Scope

The research contains specific boundaries which need to be recognized. The study's ability to generalize findings is restricted because it depends on a single case example instead of using extensive empirical evidence. The research needed to use general statements because of confidentiality restrictions which might have hidden specific details about the local context. The research findings from this study cannot be directly applied to other cultural environments because Indonesia maintains a hierarchical collectivist system. The case study shows a

particular point in time from an ongoing organizational transformation initiative but it does not reveal how the system will evolve in the future. The research team needed to simplify complex organizational elements during the process of creating a workable model which resulted in missing some organizational details. The framework functions as an initial research tool which needs future empirical validation to develop into a complete and universal organizational model.

RESULTS AND DISCUSSION

The theoretical framework of this study receives its design implications through this section. The mechanistic-organic meta-paradox framework of digital transformation appears in Figure 1. The analytical foundation of five specific paradoxes receives detailed explanation in Section 3.1. The paradoxes shown in Figure 2 demonstrate their progression from individual to inter-ministerial coordination while transforming and expanding through organizational boundaries. The relationships between contextual elements and response behaviors and resulting outcomes appear in Figure 3. The table in Table 1 provides a brief summary which enables readers to access detailed information. The fundamental paradox exists beyond solution reach because managers need to maintain ongoing involvement.

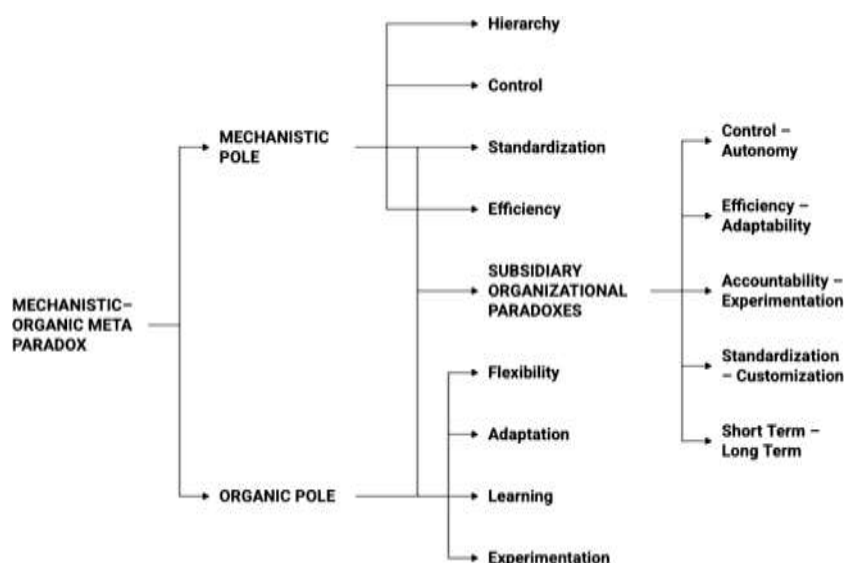


Figure 1. Meta Paradox Framework: Mechanistic-Organic Dualism and Subsidiary Paradoxes.

Source: Developed by the author based on Smith and Lewis (2011) and Jarzabkowski, Lê, and Van de Ven (2013)

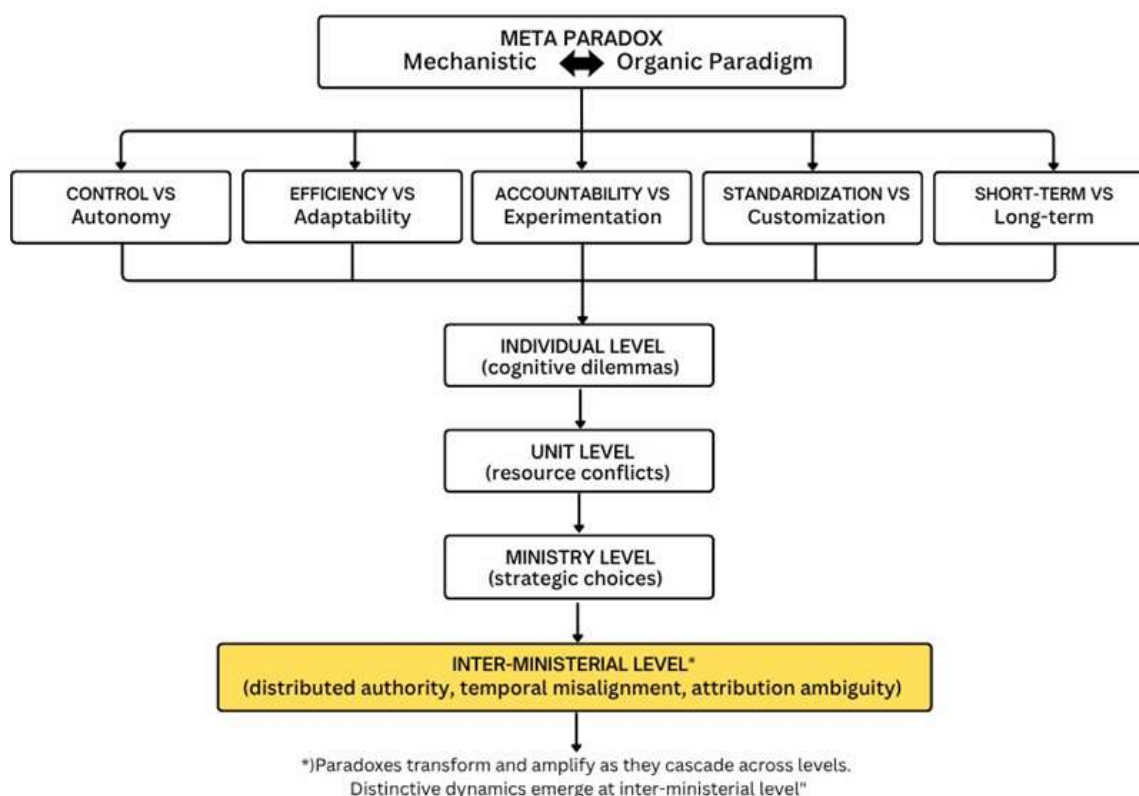


Figure 2. Multi-level cascade framework: How mechanistic-organic tensions transform and amplify across organizational boundaries.

Source: Developed by the author based on the analysis of Indonesian digital government transformation case

Conceptual Framework: Five Paradoxes in Komdigi

The official digital transformation effort of Komdigi started through Presidential Regulation No. 174/2024 and Ministerial Regulation No. 1/2025 which authorized its institutional restructuring. The reforms base their foundation on a fundamental paradox which exists between their digital transformation goals and their organizational structure. The reforms implemented a mechanistic approach by concentrating on organizational structure changes but failed to develop essential organic elements which include cultural development and capability building and incentive system creation.

Table 1 summarizes the five core paradoxes central to this analysis.

Paradox	Mechanistic pole	Organic pole	Inter-Ministerial Manifestation	Cultural Factors
Control versus Autonomy	Hierarchical control, centralized authority, approval processes	Team autonomy, decentralized decision-making, innovation freedom	Multiple coordinating bodies (MenpanRB, GovTech, Komdigi) assert overlapping authority; distributed control constrains ministry autonomy while fragmenting actual authority	High power distance reinforces control; hormat discourages autonomous decisions

Efficiency versus Adaptability	Process standardization, automation, resource optimization	Flexible workflows, rapid pivoting, experimentation	MenpanRB evaluates efficiency through standardization metrics; implementing ministries face immediate adaptability	Bureaucratic norms favor efficiency; collectivism enables
			pressures from political directives; temporal misalignment between coordination cycles	adaptive coordination
Accountability versus Experimentation	Strict documentation, audit requirements, risk aversion	Learning from failure, sandboxes, normalized risk-taking	Distributed accountability discourages experimentation (GovTech develops, MenpanRB supervises, Komdigi manages infrastructure, ministries use); attribution ambiguity for both failures and successes	<i>Jaga muka</i> (face-saving) hinders failure acknowledgment; hierarchical accountability structures
Standardization versus Customization	National standards, uniform procedures, interoperability requirements	Context-specific solutions, domain expertise, local adaptation	MenpanRB's SPBE standards vs. ministry domain expertise; GovTech platform standardization vs. ministry customization demands; tension between government coherence and institutional identity	Collectivism supports standardization; diverse geography demands customization
Short Term versus Long Term	Immediate deliverables, visible metrics, quick wins	Capability building, learning culture, sustainable transformation	MenpanRB emphasizes long-term SPBE maturity; GovTech faces rapid adoption pressure; Coordinating Ministry drives immediate policy goals; temporal fragmentation across coordinating bodies	Political cycles drive short-term focus; gotong royong enables long-term collaboration

Source: Developed by the author based on synthesis of paradox theory

Propositions

P1 Control versus autonomy. Organizations with strong power-distance structures achieve better innovation results through decision autonomy but only when they maintain proper boundaries. Performance levels decrease when organizations lack proper accountability systems. The relationship between audit intensity and decision autonomy follows a U-shaped pattern because higher audit intensity levels create negative effects on this relationship.

P2 Efficiency versus adaptability. The optimization of processes leads to better short-term delivery performance but creates delays for new solution implementation. The negative impact becomes less severe when organizations maintain adaptive resource slack and speed up their procurement processes.

P3 Accountability versus experimentation. The requirement to document experiments leads to decreased experimentation activities. The negative effect of documentation requirements on experimentation can be reduced by presenting experiments as learning activities and creating authorized testing areas.

P4 Standardization versus customization. National standards create better interoperability and equality between systems but they limit the ability of systems to adapt to local needs. The standardization vs customization conflict becomes more manageable through the implementation of modular standards and interface customization options.

P5 Short-term versus long-term. Organizations that focus exclusively on short-term performance metrics achieve better immediate results but sacrifice their ability to build long-term capabilities. Organizations need to implement dual performance metrics and establish career paths which focus on learning to achieve equilibrium between short-term and long-term goals.

Detailed Application of Paradoxes to Komdigi

The implementation of digital transformation by government agencies produces opposition between mechanistic and organic organizational approaches. The organizational requirements for digital transformation create five fundamental paradoxes which include control versus autonomy and efficiency versus flexibility and accountability versus experimentation and standardization versus customization and short-term versus long-term results. The framework links audit intensity and budgeting constraints and cultural elements to three response patterns which include separation and cycling and integration. The patterns produced in Figure 3 determine how efficiency and adaptability and compliance and citizen value will turn out.

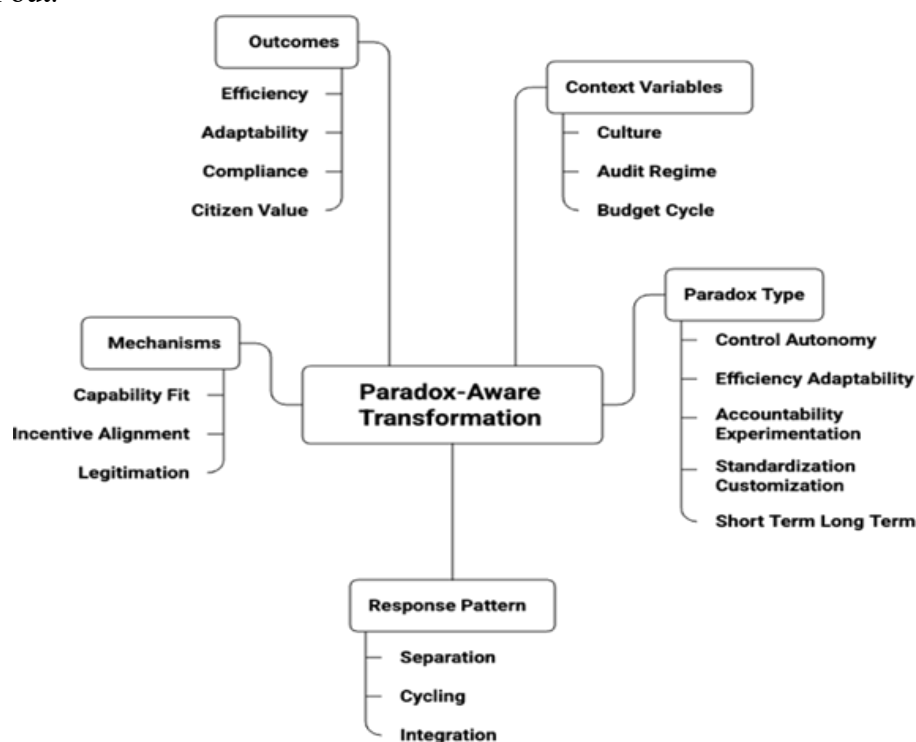


Figure 3. Mechanism map for paradox-aware transformation

Source: Developed by the author based on the analysis of response patterns in Indonesian digital government transformation

Research on digital integration shows that performance results from the connections between informatization and digitalization and data-driven intelligence which produce designs that focus on coordination instead of supporting one organizational mode (Zheng & Chen, 2025). The research on platform decentralization provides tools to study and measure how different organizational logics function within ecosystems (van Vulpen & Jansen, 2025). The diagnostic criteria in Table 2 help organizations identify their orientation and measure paradox intensity and integration stages.

Table 2. Key Indicators for Assessing Paradox Intensity Across Organizational Levels

Organizational Level	Control vs. Autonomy	Efficiency vs. Adaptability	Accountability vs. Experimentation	Standardization vs. Customization	Short term vs. Long term
Individual	Decision-making latitude; approval requirements; experimentation freedom	Procedure adherence vs. solution-finding; workflow flexibility	Fear of mistakes; blame culture; learning orientation	Procedure flexibility; tool customization options	Task completion vs. skill development; learning time availability
Unit/ Team	Budget authority; self-organization capacity; cross-functional collaboration	Throughput vs. responsiveness metrics; resource reallocation capacity	Pilot permissions; failure attribution; protected innovation space	System mandates; workflow preservation; tool integration flexibility	Quarterly deliverables vs. capability building; quick wins vs. foundations
Ministry	Digital strategy authority; technology choice autonomy; vendor independence	Optimization vs. adaptive capacity focus; mandate responsiveness	Tolerance for failure; experimentation capacity; innovation rewards	SPBE compliance vs. domain requirements; platform customization limits	Political cycle pressures; transformation investment; multi-year planning capacity
Interministerial*	Multiple oversight bodies (Menpan RB, GovTech, Komdigi); conflicting directives; unclear authority delineation	Competing efficiency metrics across coordinators; temporal misalignment; platform vs. ministry needs	Distributed accountability; attribution ambiguity; collaborative innovation constraints	National standards vs. sector expertise; domain-specific vs. generic requirements	Coordinator timeline conflicts; performance horizon misalignment; long-term maturity vs. quick integration

*Interministerial level represents this paper's key theoretical contribution to paradox theory

Source: Developed by the author based on the analysis of Indonesian digital government coordination mechanisms and organizational behavior patterns

1. Control versus Autonomy

The paradox between national digital policy implementation through centralized authority and fast innovation requirements for specialized teams and local organizations exists in this situation.

Mechanistic Pole (Control): The Indonesian power-distance culture (Hofstede, 2001) supports centralized control through restructuring efforts. The extensive digital infrastructure needs centralized control to maintain security and achieve compliance and fiscal discipline.

Organic Pole (Autonomy): The success of agile teams and innovation ecosystems depends on decentralization and failure tolerance to stay responsive.

Komdigi Manifestation: The organization faces challenges because its teams need flexibility to work independently from central regulatory requirements. The approval process extends for so long that it prevents the organization from responding quickly. The cultural value of *hormat* prevents lower-level staff members from taking independent decisions.

MenpanRB serves as the central authority for e-government policy coordination and SPBE assessment across all ministries while setting digital architecture and data governance and system integration standards (Presidential Regulation 95/2018). The state-owned enterprise GovTech INA Digital operates under MenpanRB supervision to build integrated platforms but maintains substantial freedom to execute its implementation plans. The Directorate Generals of Komdigi oversee digital infrastructure management and technical standard development.

The development of digital services by ministries leads to unclear boundaries between their responsibilities because MenpanRB sets policy guidelines and GovTech establishes platform standards and Komdigi defines infrastructure requirements and coordinating ministries add their own policy elements. The organizations share authority but each maintains some level of control while ministries need freedom to handle their particular sector requirements. The distributed control system creates an ironic situation where multiple approval steps limit ministry autonomy while splitting actual authority because no organization provides complete leadership direction. Senior officials from different ministries spend their time in coordination meetings fighting for decision authority instead of working together to solve problems because they experience digital governance jurisdictional conflicts.

2. Efficiency versus Adaptability

The system needs to decide between maintaining current process efficiency and developing flexibility for upcoming innovation needs.

Mechanistic Pole (Efficiency): The bureaucratic focus on standardized operations through mechanistic systems produces short-term performance gains but creates long-term rigidity in operations (Mergel, 2019).

Organic Pole (Adaptability): Digital transformation needs organizations to learn continuously while exploring new possibilities which demands resource flexibility that most organizations view as inefficient.

Komdigi Manifestation: The need to provide immediate services creates opposition to investments that build flexible systems for the future. Organizations that focus too heavily on short-term performance metrics lose their ability to adapt to changing circumstances.

The Inter-Ministerial Level: The efficiency-adaptability conflict between these two poles becomes more pronounced when different coordinating bodies within the multi-ministerial system focus on different aspects.

The SPBE evaluation framework of MenpanRB rewards efficiency through its assessment of standardization achievements and national platform integration and process optimization metrics. The evaluation process for SPBE requires systems to demonstrate interoperability and data integration capabilities and national standard compliance which serve as efficiency performance indicators (Presidential Regulation 39/2019). The integrated platform of GovTech delivers efficiency through its shared service capabilities and reusable components.

The implementing ministries need to adapt their systems because policy requirements change at a fast pace. The implementation of new priority programs through presidential directives demands quick system modifications which standardized efficient systems cannot perform. The standardized modules of GovTech fail to support ministry-specific workflow requirements which limits their adaptability. The policy cycle of coordinating ministries operates with long-term efficiency goals yet implementing ministries must respond to immediate adaptability demands from political leaders and public citizens.

3. Accountability versus Experimentation

The need for public sector accountability creates challenges for innovation because it requires experimental approaches.

Mechanistic Pole (Accountability): The requirement for high accountability levels together with strict audit controls creates an environment where innovation becomes difficult to implement.

Organic Pole (Experimentation): Organizations need to establish controlled testing environments which allow them to take calculated risks for innovation purposes. **Komdigi Manifestation:** The requirement for detailed justification of innovation units restricts their ability to explore new possibilities. The organizational learning process suffers because employees cannot openly discuss their mistakes due to the cultural practice of *jaga muka* (face-saving).

The Inter-Ministerial Level: The accountability-experimentation conflict reaches its peak when multiple ministries work together because they struggle to determine who should be responsible for outcomes.

Digital initiatives that span multiple ministries and coordinating bodies create challenges when trying to determine who should be held responsible for their outcomes. The development of experimental platform features by GovTech requires oversight from MenpanRB for policy compliance and Komdigi handles the underlying infrastructure while implementing ministries serve as actual users. The implementation of experimental features which disrupt ministry operations creates a situation where multiple organizations share responsibility for the outcome.

The distributed accountability system creates a paradox that reduces experimentation because no single entity controls both experimental authority and result accountability (Klievink, Bharosa, and Tan, 2016). The success of multi-agency initiatives creates confusion about responsibility which weakens performance-based accountability systems. Multiple organizations take credit for successful inter-ministerial innovations which reduces individual ministry motivation to support risky collaborative experiments.

4. Standardization versus Customization

This paradox requires balancing national-level standardization with local adaptation. Mechanistic Pole (Standardization): National standards ensure equity, interoperability, and system-wide integration.

Organic Pole (Customization): Indonesia's diverse geography and governance complexity preclude universal solutions, requiring contextual adaptations.

Komdigi Manifestation: Success depends on implementing modular standards offering a consistent foundation while permitting local customization. Failure to balance these needs produces underutilized systems.

The Inter-Ministerial Level: This standardization-customization tension becomes particularly acute across ministerial boundaries where national standards must accommodate diverse domain expertise and ministerial identities.

The paradox requires organizations to establish national standards which must then be adapted to local requirements.

Mechanistic Pole (Standardization): National standards enable both equal treatment of all users and system-wide integration and operational compatibility.

Organic Pole (Customization): Organizations need to adapt their solutions to specific contexts because Indonesia's complex governance system and varied geographical areas make universal solutions impractical.

Komdigi Manifestation: The success of implementation depends on creating modular standards which provide a unified base while enabling customized solutions for local needs. The lack of proper balance between these requirements leads to system underuse. The Inter-Ministerial Level: The standardization-customization conflict reaches its peak when different ministerial groups need to implement national standards that fit their unique domain expertise and organizational characteristics.

The SPBE framework of MenpanRB requires organizations to follow standardized architectural designs and data formats and security protocols and integration methods for achieving government-wide digital consistency. The evaluation process of SPBE uses specific metrics to assess how well organizations follow established standards which determine their digital maturity level. The extensive domain knowledge that ministries have developed throughout many years makes it difficult to implement standardized solutions. The three specialized ministries of health and agriculture and maritime affairs maintain their own unique technical terminology and classification systems and data relationships which standard national frameworks cannot effectively support.

The process of connecting specialized domain concepts to standard schemas results in reduced semantic accuracy. The business model of GovTech requires standardization for platform scalability but ministries need customized solutions for their specific sector requirements. The inter-ministerial conflict demonstrates fundamental questions about organizational self-definition and professional freedom (Schein, 2010). The standardization process serves to achieve government-wide consistency and citizen service excellence but it faces resistance from ministries who want to protect their institutional identity and domain expertise.

5. Short-Term versus Long-Term

The paradox exists because it requires both urgent short-term results and extended periods for capacity development.

The Mechanistic Pole supports short-term achievements because political systems and budget cycles need fast results that produce visible but possibly superficial outcomes.

Organic Pole (Long-Term): Authentic transformation needs organizations to dedicate resources for building capabilities and cultural development which produce slow yet lasting results.

Komdigi Manifestation: The need for immediate results within short periods threatens to undermine essential capacity development efforts. The implementation of dual performance metrics and professional development rewards helps organizations handle this conflicting requirement.

The Inter-Ministerial Level: The short-term versus long-term paradox affects inter-ministerial relationships because different coordinating bodies work with different timeframes.

MenpanRB supports extended capability development through its SPBE maturity framework which evaluates governance structures and policy frameworks and institutional capacities that need multiple years to mature. The evaluation system of SPBE provides rewards to organizations which dedicate resources to data governance documentation and architectural roadmaps and staff competency development. The implementing agency GovTech INA Digital faces immediate demands to achieve fast platform adoption and user growth through short-term performance indicators that track monthly user numbers and transaction activity. The Coordinating Ministry for Economic Affairs focuses on digital projects which support current economic policy requirements through fast deployment of digital payment systems and online licensing systems for business facilitation.

The different time-based expectations from various organizations create conflicting directions for implementing ministries to follow between building essential governance systems and achieving platform integration targets and delivering immediate services for coordinating ministry objectives. The different time-based approaches between coordinating bodies create obstacles for developing consistent organizational capabilities.

Cultural Mediation of Paradox

The cultural elements of Indonesia determine how people experience and handle paradoxical situations. Table 3 outlines cultural mediation of paradoxes.

Table 3. Cultural Mediation of Paradox

Cultural Feature	Paradox Intensified	Paradox Managed/Mitigated
High Power Distance	Amplifies control in control-autonomy paradox	N/A
Jaga Muka	Increases risk aversion in accountability-experimentation	N/A
Gotong Royong	N/A	Facilitates informal coordination in standardization-customization paradox

<i>Musyawarah</i>	N/A	N/A
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Source: Developed by the author based on Hofstede (2001), cultural analysis of Indonesian work practices, and observed paradox management patterns in Komdigi case

The research findings show that the mechanistic-organic dichotomy functions through cultural frameworks instead of existing independently. The digital transformation initiative of Komdigi needs to incorporate organic cultural elements to achieve genuine change instead of creating a hierarchical system that only appears mechanized.

Illustrative Application: Komdigi Restructuring

1. Stage 1: Paradigmatic Mapping

Komdigi uses mechanistic elements to establish functional separation and specialized work and efficient operations and independent regulatory oversight. The Secretariat General and Inspectorate General operate as centralized governance units. The organization maintains its mechanistic structure through human resource directorate stability which shows no development of transformative capabilities. The organization uses ecosystem language and programs which include cross-functional teams and regulatory sandboxes and innovation laboratories and multi-stakeholder platforms to promote learning and adaptation. The transition process between mechanistic and organic roles for staff members led to role confusion and professional identity issues. The physical changes made to the organization failed to improve teamwork between departments because the existing performance-based systems maintained their mechanistic approach.

Propositions from Restructuring Analysis

The reorganization at Komdigi shows how different organizational elements create conflicts between structural elements and linguistic elements and institutional elements and functional elements. The reallocation of staff members between departments fails to produce positive results because it does not lead to fundamental changes in organizational approaches. The organization faces challenges in achieving organic teamwork because its incentive systems maintain mechanistic principles during organizational changes. The organization faces skill shortages because it has not developed its human resources. The temporary benefits of mechanistic spatial arrangements between units will disappear when proper integration methods are not implemented. The solution to existing paradoxes depends on the specific cultural environment of an organization. Western-developed organizational theories need adjustments when implemented in hierarchical collectivist organizational environments. The management of organizational paradoxes through local cultural practices such as gotong royong and respect for authority structures produces better results than Westernization efforts.

2. Stage 2: Identifying Paradoxes

The organization faces multiple paradoxes because its regulatory division faces conflicting duties with its sandbox division and its procurement system remains inflexible and its performance metrics are risk-averse and its standards do not match local needs and short-term political demands limit organizational development.

3. Stage 3: Analyzing Response Patterns

The physical separation between regulatory and innovation bodies creates barriers that prevent them from working together and limits their ability to generate new ideas. The research

confirms that physical separation between units leads to increased fragmentation which makes it harder to expand operations.

4. Stage 4: Contextualizing Culture

The Indonesian culture with its strong power distance requires organizations to handle control versus autonomy conflicts while their hierarchical structure limits experimental activities. The collectivist nature of the organization supports teamwork but it might reduce personal responsibility among members. The organization needs to transform experimental approaches into collective learning activities because its members show strong uncertainty avoidance which affects their willingness to take risks.

5. Stage 5: Designing Strategic Interventions

The framework preserves mechanistic elements for maintaining compliance and uniformity while creating organic boundaries to support experimental activities. The implementation process uses liaison positions and employee exchanges and collaborative planning and performance assessment systems with multiple evaluation criteria. Leaders who understand paradoxes foster employees to think flexibly while being sensitive to context and culturally aware while keeping a clear direction to track and control emerging conflicts. The organization conducts experiments through methods that respect cultural traditions by using face-saving techniques and obtaining approval from superiors and conducting collaborative discussions through *musyawarah*. The organization starts with controlled small-scale initiatives which prove their value before receiving full autonomy. The organization makes structural changes by providing equal compensation to departments and performance assessments that value learning and efficiency and dual career paths for specialists and generalists and human resource development programs that focus on skill development instead of standardized training.

Paradox-Aware Leadership in Government Digital Transformation

Leadership functions as a vital element for handling the conflicting elements which affect government digital transformation initiatives. The research framework demonstrates that public organizations maintain ongoing paradoxical elements. Leaders need to develop paradox-aware thinking abilities which enable them to handle opposing demands simultaneously instead of seeking absolute solutions (Smith and Lewis, 2011). The approach differs from conventional leadership approaches which focus on making straightforward linear choices. Leaders who understand paradoxes show adaptable thinking abilities by switching between structured systems and free-form systems based on specific situations (Schad, Lewis, Raisch, and Smith, 2016).

Leadership teams at these organizations maintain strict performance standards for critical operations yet they give their staff freedom to test new approaches in different departments. Leaders who want to handle conflicting forces need to develop their ability to handle unclear situations and unpredictable outcomes (Miron-Spektor et al., 2018). Paradox-aware leaders foster continuous dialogue about tensions instead of seeking quick answers (Putnam et al., 2016).

In Indonesia, leaders need to understand cultural aspects because its organizations function based on hierarchical structures and collective values (Hofstede et al., 2010; Schein,

2010). The cultural practice of hormat creates organizational rigidity because it stops junior staff members from challenging authority when they need to. Leaders who want to succeed need to establish secure environments which let staff members express their opinions respectfully through practices like musyawarah (Edmondson, 2019).

Research findings demonstrate that leaders who understand paradoxes use three main approaches to link mechanistic and organic systems which results in better integration (Gibson and Birkinshaw, 2004; van der Voet et al., 2016). Leaders who expose paradoxes create legitimacy for team challenges which reduces tension while enabling innovative work within established accountability frameworks (Raisch and Birkinshaw, 2008). The essential role of paradox-aware leadership remains underresearched in public-sector digital transformation studies (Mergel et al., 2019).

Future research should focus on understanding how leaders develop paradox abilities and what effects result from paradox-based leadership approaches. The development of paradox-aware leadership stands as a vital requirement for handling built-in contradictions within government digital transformation initiatives. These leaders actively manage contradictions to achieve both innovation and accountability in their work.

Policy and Organizational Design Implications

The public sector faces complex challenges because of the multiple paradoxes that exist during digital transformation initiatives. The coexistence of mechanistic and organic demands requires organizations to develop policies which support these tensions instead of blocking them. The following section contains policy recommendations which direct both policymakers and administrators who work in Indonesian-style hierarchical collectivist systems.

1. Flexible Procurement and Budgeting

Government procurement systems together with budgeting processes focus on achieving predictable results and maintaining control while delivering short-term efficiency. The rigid structure of mechanistic systems creates opposition to the organic needs for testing new approaches and adaptive resource management. Public resource protection should be combined with innovative procurement systems that support innovation development. The implementation of short-term contracts and modular procurement systems and controlled testing environments through sandbox programs allows organizations to conduct risk-controlled pilot projects (Bason, 2017; Arner et al., 2017). Budgeting systems should implement multi-year frameworks which reward developmental achievements and learning the need for immediate quantifiable results (Moynihan, 2008)

2. Human Resources and Talent Strategies

The civil service system of most countries uses performance-based evaluation methods which discourage staff members from taking risks or experimenting with new approaches. Organizations should establish dual career paths which recognize both specialized technical skills and leadership abilities for innovation. Training programs which teach staff members to handle paradoxical situations and cultural differences will help them lead their teams effectively. The implementation of cross-functional teams and employee rotations helps organizations eliminate departmental barriers which enable organic teamwork (OECD, 2017).

3. Regulatory Adjustments

Regulatory bodies need to establish a balance between maintaining accountability standards and supporting innovative practices. The implementation of risk-based flexible regulatory systems enables organizations to obtain progressive approval levels with specific control measures. The implementation of regulatory sandboxes in fintech and other sectors enables innovation under controlled conditions. The implementation of these systems requires organizations to establish clear entry procedures and governance structures and learning systems (Arner et al., 2017).

4. Organizational Design Enhancements

Organizations that implement paradox management structures maintain their mechanistic compliance units while fostering organic innovation in peripheral areas. The organization uses liaison positions and employee rotation programs to link these different operational areas. The combination of dual reporting lines with matrix structures enables teams to detect and handle paradoxical situations. Performance systems which evaluate both operational efficiency and exploratory activities help organizations develop paradox management capabilities throughout their cultural framework (Birkinshaw and Gibson, 2004; Raisch and Birkinshaw, 2008).

5. Cross-Cultural and Comparative Perspectives

The research investigates Indonesia but its results demonstrate value for other organizations with hierarchical structures and collectivist cultures that undergo digital transformation challenges. Research studies that compare different organizational cultures and governance systems would help determine how these elements affect the methods used to handle paradoxes. The public sector requires different approaches than the private sector because it must maintain legitimacy and transparency while ensuring citizen accountability (Hofstede, Hofstede, and Minkov, 2010).

CONCLUSIONS

The research highlights the ongoing conflict between mechanistic and organic organizational systems in the management of government digital transformation, presenting five key organizational paradoxes: control vs. autonomy, efficiency vs. flexibility, accountability vs. experimentation, standardization vs. customization, and short-term vs. long-term goals. These paradoxes span multiple organizational levels, from individuals to ministries, and their resolution depends on capable leadership and cultural context. The study demonstrates how paradoxes escalate across boundaries, with tensions becoming more complex at inter-ministerial levels due to differing structures and goals. The research links these paradoxes to the mechanistic and organic paradigms, enriching organizational paradox theory, particularly through the lens of non-Western cultural perspectives, such as Indonesia's hierarchy and collectivism. The practical implications provide a framework for public-sector leaders to balance conflicting demands, emphasizing modular standards, flexible performance measures, and the importance of managing paradoxes for sustained change. However, the study is limited by its focus on bureaucratic settings and Indonesian cultural norms, which may not be directly applicable to other contexts. Future research should focus on developing tools to measure organizational orientations, paradox tension, and their manifestations across various

levels and cultures, employing mixed-methods approaches and cross-national comparisons to deepen understanding of paradox management and its impact on organizational performance.

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