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Multi-level governance readiness and regional policy capacity in supporting Indonesia's new capital development

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Introduction: The establishment of Nusantara Capital City (IKN) as Indonesia's new capital requires effective multi-level governance in which supporting provinces play a decisive role in ensuring administrative, infrastructural, and economic alignment with national priorities. This study examines the governance readiness and regional policy capacity of West Sulawesi Province, Indonesia, as a supporting region for IKN development.

Methods: A qualitative descriptive–analytical case study was conducted using semi-structured interviews with regional officials, sectoral agencies, legislators, academics, and civil society, complemented by policy documents and statistics. Interview data were coded and analyzed using NVivo 12 Plus with crosstab analysis, while InfraNodus network analysis mapped keyword co-occurrence to capture cross-level governance interactions beyond internal regional conditions.

Results: The findings reveal uneven governance readiness across five dimensions. Environmental sustainability and social infrastructure emerge as the strongest areas, reflecting alignment with national sustainability agendas and expanding public services. Human resource indicators show moderate readiness, particularly in workforce participation and training. In contrast, institutional capacity, higher education availability, and intergovernmental fiscal transfers represent the most critical weaknesses, indicating persistent gaps in administrative robustness, knowledge infrastructure, and vertical fiscal coordination.

Discussion: The study demonstrates that regional readiness for IKN is shaped not only by internal capacity but also by power asymmetries, regulatory dependence, and coordination frictions within multi-level governance. These findings contribute to governance and policy capacity scholarship by highlighting the centrality of cross-level relations in nationally driven megaprojects.

KEYWORDS

environmental sustainability, fiscal capacity, governance readiness, human capital, infrastructure readiness, multi-level governance, policy capacity, regional development

1 Introduction

The relocation of Indonesia's national capital from Jakarta to Nusantara Capital City (IKN) represents a fundamental shift in the country's long-term development trajectory and represents one of the most ambitious state-building efforts in recent decades (Anirwan et al., 2024; Syaban and Appiah-Opoku, 2023). Envisioned as a sustainable and technologically advanced administrative center, Nusantara embodies Indonesia's aspiration to create a future-oriented governance model that aligns with global urban development standards while embedding the nation's cultural diversity. As mandated by Law No. 3 of 2022, the development of the new capital requires coordinated support not only from Kalimantan as the host region but also from strategically positioned supporting provinces, including West Sulawesi Province, which functions as a critical logistical corridor, labor-supplying region, and economic hinterland within the eastern Indonesian development system (Buana et al., 2023). The strategic location of West Sulawesi along inter-island transport routes and its role in mobilizing workforce, commodities, and supporting infrastructure underscore the importance of subnational regions beyond the immediate project area in sustaining the long-term viability, resilience, and governance effectiveness of Nusantara.

Central to the success of Indonesia's new capital is the ability of multiple governance layers—national ministries, the IKN Authority, provincial governments, regency administrations, and private-sector actors—to coordinate effectively within a multi-level governance (MLG) architecture that links central mandates with subnational implementation capacities (Mutiarin and Lawelai, 2023). Such coordination the vertical alignment of policy priorities, harmonization of institutional responsibilities, strengthening administrative capacity, and ensuring sufficient resource mobilization across national, provincial, and local levels of government. Subnational units functioning as supporting regions must therefore enhance their governance readiness by improving infrastructure systems, developing skilled labor, mobilizing economic potential, ensuring environmental sustainability (Lawelai and Nurmandi, 2024; Rachmawati et al., 2024), and strengthening fiscal capacity. These interrelated dimensions reflect not only internal regional preparedness but also the capacity to engage effectively with central government institutions and the IKN Authority, enabling them to contribute meaningfully to the national development agenda while navigating institutional coordination challenges and power asymmetries inherent in large-scale governance transformation.

The governance challenges associated with supporting the new capital extend beyond physical development and touch on issues of institutional coherence, policy responsiveness, and cross-sectoral collaboration. Emerging governance demands include smart city integration, data-driven public service delivery, and interoperable digital systems, alongside sustainable mobility (Lawelai, 2023; Muttaqin and Pusvita, 2023), renewable energy adoption, ecological protection, and digital governance (Aprianti et al., 2023; Heryana et al., 2023). While these smart governance agendas are largely designed and regulated at the central level, their implementation depends heavily on subnational administrative capacity and intergovernmental coordination, creating points of friction between national directives and regional operational readiness. Subnational regions must therefore adapt their governance systems to these evolving requirements by

strengthening policy capacity, administrative capability, and both horizontal coordination across sectors and vertical coordination with central ministries and the IKN Authority. These transformations demand not only technical adjustments but also strategic institutional learning, regulatory adaptation, and long-term planning, particularly for regions expected to supply labor, resources, and supporting infrastructure for Nusantara, where misalignment across governance levels can directly constrain effective policy execution.

Despite growing academic interest in Indonesia's new capital, existing research remains heavily concentrated on Kalimantan's immediate buffer zones, logistical corridors, urban spatial planning, land suitability, ecological design, and smart mobility systems (Arfiansyah et al., 2024; Setyanto et al., 2023; Sulasno and Sucahyo, 2023). While these studies offer valuable insights into spatial and infrastructural dimensions of the new capital, they largely overlook the strategic roles of non-adjacent supporting provinces that contribute indirectly yet substantially to Nusantara's governance, economic resilience, and labor supply. This buffer-zone bias constrains comparative understanding of how governance readiness and policy capacity vary across Indonesia's multi-tier territorial system, particularly in regions that are institutionally connected to IKN but geographically distant. Furthermore, empirical investigations remain limited regarding how these peripheral supporting regions mobilize institutional arrangements, fiscal resources, and economic capabilities to align with centrally defined development priorities, or how they manage power asymmetries and coordination constraints inherent in intergovernmental relations. As a result, the broader dynamics of multi-level governance supporting Nusantara remain only partially understood.

These gaps underscore the need for a systematic and multi-dimensional examination of governance readiness that includes infrastructure conditions, human resource quality, economic performance, environmental stewardship, and fiscal capability. Together, these five dimensions constitute the core components of regional policy capacity, shaping a subnational region's ability to contribute effectively to MLG arrangements central to the realization of Nusantara. Moreover, analyzing these dimensions in an integrated manner enables a clearer identification of power asymmetries, coordination frictions, and institutional constraints that influence center–region dynamics in nationally driven development projects. This analytical approach moves beyond sectoral assessments by capturing how structural dependencies and governance interactions condition regional readiness, while also allowing for the identification of strategic entry points through which subnational governments can strengthen institutional capacity, improve policy alignment, and position themselves as active contributors to Indonesia's future administrative landscape.

This study focuses on addressing the following five research questions, derived directly from the five core dimensions analyzed in the results section:

- RQ1: How prepared is the supporting region's infrastructure system to meet the demands of Indonesia's new capital development?
- RQ2: To what extent does the region's human resource capacity enable effective participation in multi-level governance arrangements?
- RQ3: How does the region's economic potential contribute to its readiness to support national strategic development?

- RQ4: *How well does the region integrate environmental sustainability into its governance readiness for the new capital?*
- RQ5: *How adequate is the region's fiscal capacity in supporting its role within the multi-level governance of Nusantara's development?*

By answering these questions, the study contributes to the broader field of comparative governance by illuminating the dynamics of center–region relations, the allocation of responsibilities across governance levels, and the structural asymmetries that shape intergovernmental coordination within Indonesia's multi-level governance system. These studies extend multi-level governance and policy capacity scholarship by demonstrating how subnational readiness is conditioned not only by internal resources but also by vertical coordination and institutional dependency on central authorities, particularly in nationally driven megaprojects such as Nusantara. The analysis also aligns with Sustainable Development Goal (SDG) 16, which emphasizes the strengthening of effective, accountable, and inclusive institutions at all levels. From a policy perspective, this research provides evidence-based insights for national and subnational policymakers to design targeted capacity-building strategies, improve cross-level coordination, and enhance the functional role of supporting provinces, thereby enabling subnational regions to more effectively support one of the most significant national development initiatives in Indonesia's contemporary history.

2 Literature review

2.1 Governance and institutional capacity

Governance is broadly defined as the structures, processes, and norms through which authority is exercised, decisions are made, and stakeholders are engaged in public affairs (Islam et al., 2018; Jiménez et al., 2020). In the context of Indonesia's new capital development, governance becomes a multidimensional mechanism that determines how effectively central and subnational governments coordinate responsibilities. Institutional capacity forms a key component of governance, referring to a government's ability to design coherent policies, manage public resources, regulate development, and collaborate with societal and market actors stakeholders (Cid and Lerner, 2023; Gullmark and Clausen, 2023; Moloney and Fünfgeld, 2015). Local governments with strong institutional capacity are better positioned to support large-scale development such as IKN, where responsiveness, adaptability, and administrative competence are essential.

The clarity of institutional duties and the distribution of authority among governmental tiers play decisive roles in shaping governance performance. Local governments must possess the legitimacy and decision-making authority to influence land-use policy, zoning regulations, infrastructure planning, and public service delivery (Ewing et al., 2024; Fuseini and Kemp, 2015). Clearly defined mandates reduce administrative fragmentation, strengthen coordination, and enhance policy implementation capacity. Policy readiness is further reinforced by regulatory coherence and the presence of guidance instruments that reduce bureaucratic (Gorelick, 2018; Men et al., 2025). As IKN requires alignment across multiple jurisdictions, institutional clarity becomes a fundamental prerequisite for effective multi-level governance.

Leadership quality within local institutions further determines the degree to which governance systems can mobilize resources, promote cross-sectoral collaboration, and build legitimacy among stakeholders. Leaders who emphasize transparency, accountability, inclusivity, and public engagement are more likely to foster conducive environments for successful development (De Weger et al., 2018; Latupeirissa et al., 2024). Skilled civil servants also contribute significantly to institutional performance. Thus, investment in training, capacity-building, and managerial development enhances the capability of local government personnel to navigate the administrative complexities associated with supporting the new capital. Human talent—not just systems—forms the foundation of long-term institutional strength.

2.2 Comparative governance theory

Comparative governance theory provides a conceptual basis for examining how governance systems operate across different territorial and institutional contexts. The theory focuses on actor constellations, coordination mechanisms, and power asymmetries that influence how national and subnational governments collaborate (Bache and Flinders, 2005; Peters and Pierre, 2016). Within Indonesia's IKN development, comparative governance highlights how the central government, IKN Authority, provincial governments, and regency administrations share or compete over responsibilities related to infrastructure, fiscal arrangements, and administrative support.

A central tenet of the theory is that governance effectiveness depends on the quality of both vertical coordination (across levels of government) and horizontal coordination (across sectors and regions) (Treib et al., 2007). For IKN, the ability of supporting regions to align policies with national directives is crucial. At the same time, coordination among subnational actors determines the cohesiveness of regional contributions.

Power asymmetry is also central in comparative governance. Subnational units often depend on national agencies for budget transfers, regulatory approvals, and policy directives (Pierre and Peters, 2005). Such asymmetric relations can limit regional autonomy and hinder readiness unless strong institutional capacity compensates for unequal resources. In the context of supporting IKN, comparative governance theory helps explain variations in regional preparedness, institutional alignment, and the potential for conflict or cooperation among administrative levels.

2.3 Financial resources and economic viability

The financial readiness of local governments strongly influences their capacity to support capital city development. Public finance literature emphasizes that revenue generation, budget management, and expenditure control determine whether local governments can invest in infrastructure, services, and development programs (Cordery and Hay, 2024). A sustainable fiscal model is essential because capital development requires long-term financial commitments and the ability to adapt to fluctuating economic conditions.

Local governments typically draw revenues from taxes, charges, transfers from higher-level governments, and public–private partnerships. Diversifying revenue sources contributes to financial

resilience and reduces dependency on centralized transfers (Al Naimi, 2022; Rao et al., 2023). Effective budgeting ensures that funds are allocated transparently and efficiently, allowing local governments to meet both routine service obligations and strategic development targets.

Economic viability enhances fiscal capacity. Local governments that facilitate economic growth through investment-friendly policies, support local enterprises, and infrastructure development improve their long-term financial stability (Adams et al., 2019; Yousuf et al., 2016). Strategic planning is essential to identify sectors with high potential for growth. Policies promoting innovation and entrepreneurship foster local competitiveness and improve residents' quality of life (Sperling and Arler, 2020).

2.4 Community engagement and social readiness

Community engagement serves as a vital foundation for local government readiness, ensuring that development initiatives gain public legitimacy and reflect local aspirations. Meaningful engagement enables residents to contribute ideas, express concerns, and shape development priorities, thus strengthening democratic governance and policy acceptance (Abas et al., 2023). When communities feel included, they are more likely to support large-scale changes such as those associated with IKN.

Prior studies highlight that inclusive engagement is essential to ensuring that marginalized populations participate meaningfully in policy processes (Horst et al., 2017; Manoharan and Ingrams, 2018). Participation mechanisms—such as public forums, consultations, and participatory planning—foster collaboration and help local governments design policies that resonate culturally and socially (Balfour et al., 2018; Stukas et al., 2016). Social readiness also includes understanding local values, traditions, and socio-cultural contexts. Development plans that acknowledge cultural identity, social cohesion, and community well-being are more likely to succeed (Wang et al., 2023). Enhancing public spaces, providing social services, and promoting cultural activities all contribute to stronger societal support for development projects.

2.5 Conceptual framework

The conceptual framework developed in this study integrates multiple theoretical pillars that collectively explain how subnational governments mobilize administrative, economic, environmental, and fiscal resources to support Indonesia's new capital development. As illustrated in Figure 1, the framework draws on comparative governance theory, which emphasizes actor constellations, coordination patterns, and power asymmetries across administrative levels (Ongaro, 2018; Peters and Pierre, 2016). This is complemented by institutional capacity theory, which highlights the ability of organizations to coordinate, communicate, and cooperate across individual, organizational, and environmental dimensions (García-Vegas, 2024; van de Meene et al., 2009; van Well and Kallhauge, 2013).

Human capital theory further informs the framework by explaining how education, skills, and knowledge assets contribute to governance performance and innovation (Brown et al., 2020;

Kirkpatrick et al., 2017; Lajili, 2015; Radu et al., 2022). Meanwhile, public finance theory underscores the importance of fiscal structures, revenue generation, budget allocation, and intergovernmental financial relations in shaping governance capacity (Adedeji, 2023; Lewis, 2023). Finally, sustainable development principles provide the ecological and social dimensions required for long-term governance effectiveness by emphasizing the need to balance economic growth, social equity, and environmental protection (Bianchi and Richiedei, 2023; Teixeira Dias et al., 2023). Together, these theories form an integrated analytical lens for assessing regional readiness within Indonesia's multi-level governance structure.

Within this integrated theoretical model, the framework positions five core variables—infrastructure readiness, human resources, economic potential, environmental sustainability, and fiscal capacity—as the central determinants of regional governance readiness to support IKN. Infrastructure readiness reflects the physical and organizational systems needed to sustain development processes (Barabash et al., 2023; Gyergyay et al., 2019; Heinemann and Hatfield, 2017), while human resources represent the knowledge, skills, and competencies required for effective policy execution (Malik and Kaur, 2020; Mensah and Mi, 2018). Economic potential captures the ability of regions to stimulate growth and contribute to national development (Adams et al., 2019; Yousuf et al., 2016), whereas environmental sustainability ensures adherence to ecological and long-term governance principles (Noja et al., 2019; Wang et al., 2016). Fiscal capacity encompasses the strength of financial management systems, including budgeting, revenue diversification, and intergovernmental fiscal coordination (Chakunda et al., 2021; Groenendijk, 2023). The interaction among these five variables forms an interconnected system of policy capacity, demonstrating how subnational units can strategically align their institutional functions and resource bases to fulfill supporting roles in Indonesia's evolving governance landscape.

3 Materials and methods

3.1 Research design

This study adopts a descriptive-analytical design with a subnational case-study approach, allowing an in-depth assessment of governance readiness and regional policy capacity in the context of Indonesia's new capital development by selecting West Sulawesi Province as a strategically relevant case due to its geopolitical position as a supporting region, its emerging economic capacity, and its logistical linkage to the IKN development corridor. A qualitative strategy was selected because it enables researchers to explore complex interactions among institutional, economic, infrastructural, and social factors that shape regional preparedness (Yanda et al., 2024), particularly in provinces functioning as functional hinterlands rather than core development zones. This approach also facilitates mapping existing challenges and identifying opportunities by interpreting policy documents, stakeholder perspectives, and contextual realities (Wang, 2024), including regional connectivity, economic support functions, and intergovernmental coordination roles related to IKN. This study examines relationships among variables to understand how public policies, institutional dynamics, and societal responses influence subnational contributions within multi-level governance arrangements, with specific attention to regions that support national

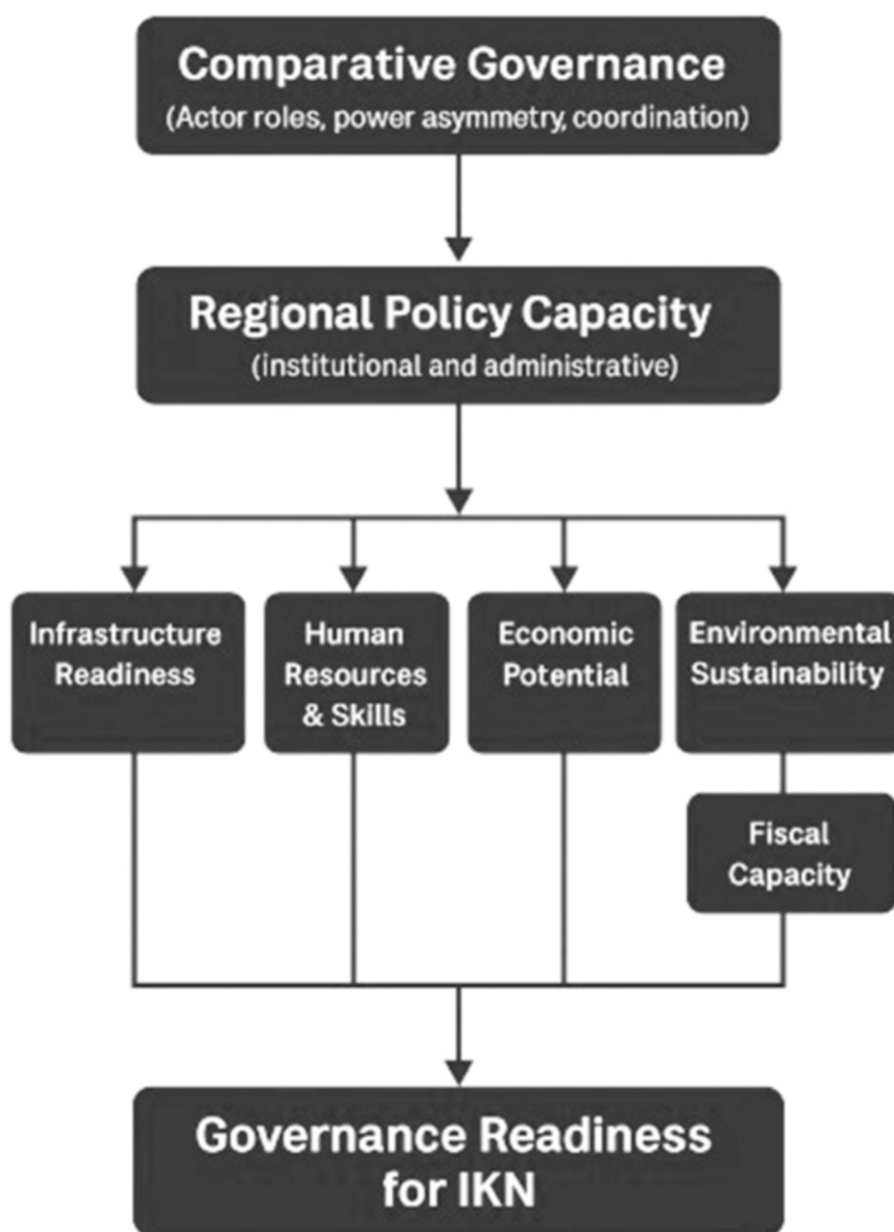


FIGURE 1
Conceptual framework. Source: results of data processing by researchers (2025).

megaprojects through logistical, economic, and administrative interdependencies.

3.2 Data sources

To ensure comprehensive analysis, this study draws on both primary and secondary data as summarized in Tables 1, 2, with primary data obtained through interviews 14 informants consisting of regional government officials, sectoral stakeholders, legislative representatives, academics, and civil society actors, to capture perspectives on governance capacity, institutional arrangements, and development readiness, while secondary data are derived from strategic policy documents, development plans, and national–regional

TABLE 1 Data sources.

Type of data	Description
Primary data	Interviews with regional government officials, sectoral stakeholders, and community representatives
Secondary data	RPJMD, RPJMN, investment policy documents, IKN development plans, statistical reports, and other official documents

Source: results of data processing by researchers (2025).

regulatory frameworks relevant to the new capital project as detailed in Table 1, with informant categories and interview distribution explicitly presented in Table 2.

TABLE 2 Informant category.

No.	Informant category	Total
1	Provincial development planning agency (Bappeda)	2
2	Infrastructure agency (OPD)	4
3	Regional parliament (DPRD)	3
4	Regional academic	3
5	Civil society representative	2
Total informant		14

Source: results of data processing by researchers (2025).

3.3 Data collection procedures

The study employed purposive sampling to identify key informants with direct involvement in governance processes and regional development planning, with interviews conducted during the period between July and August 2024 and an average duration of 45–60 min per interview. Interview data were complemented by systematic extraction of policy documents, regulations, and statistical datasets to ensure analytical consistency, and all interviewees provided written and verbal informed consent prior to participation. Literature reviews supported contextual grounding and theoretical integration, while document analysis enabled cross-validation of interview insights. Together, these procedures enhanced the reliability of interpretations and supported a nuanced evaluation of policy capacity within the multi-level governance structure, and ethical approval was not required because the study involved non-sensitive topics, voluntary participation, anonymized responses, and no collection of personal or confidential data beyond professional roles.

3.4 Analytic strategy

Data analysis followed a structured three-stage process—interview data, coding process, and crosstab analysis—as illustrated in Figure 2. Data analysis process consisting of interview data, coding data, network analysis, and crosstab analysis. First, interview data were collected to capture empirical narratives on governance practices, fiscal relations, regulatory dependence, and coordination dynamics between regional governments, the central government, and the IKN Authority. Second, the interview transcripts were systematically coded to identify themes and subthemes related to governance performance, infrastructure readiness, human resources, economic potential, environmental sustainability, and fiscal capacity.

Third, network analysis using InfraNodus was applied to map keyword co-occurrence and semantic relationships across the coded data, enabling the identification of relational patterns that link central policy narratives, provincial coordination roles, and local implementation contexts. This step explicitly reveals how fiscal dependency, regulatory alignment, and coordination frictions are embedded across governance levels, moving the analysis beyond an assessment of internal regional conditions. Finally, crosstab analysis using NVivo 12 Plus was employed to quantify and visualize the distribution of coded references across indicators and governance dimensions, allowing systematic comparison of emphasis, gaps, and structural imbalances. The combination of InfraNodus and NVivo 12

Plus was deliberately adopted to integrate relational network insights with structured comparative analysis, thereby strengthening the interpretation of multi-level governance dynamics involving fiscal relations, regulatory dependence, and coordination challenges with the central government and the IKN Authority.

3.5 Trustworthiness and limitations

Research credibility was enhanced through methodological triangulation, integrating interview insights, policy documents, and statistical sources to validate findings from multiple perspectives. Dependability was strengthened through consistent coding procedures and documentation of analytical steps. However, the study remains limited by the predominance of descriptive qualitative data, which may restrict broader generalization. In addition, regional dynamics evolve rapidly, meaning that certain institutional or economic indicators may shift over time. Despite these limitations, the methodological approach provides a robust foundation for assessing governance readiness and policy capacity within Indonesia's evolving multi-level governance landscape.

4 Results

This section presents empirical findings by situating regional governance readiness within the conceptual framework outlined in Figure 1, which emphasizes comparative governance and regional policy capacity as the core analytical lenses. The results synthesize qualitative interview evidence to demonstrate how infrastructure readiness, human resources, economic potential, environmental sustainability, and fiscal capacity interact under conditions of asymmetric multi-level governance. By mapping these interactions presented in Figure 3 and Table 3, the findings reveal how institutional coordination, resource dependence, and capacity constraints collectively shape the region's ability to support the development of Indonesia's new capital.

Figure 3 demonstrates that the principal points of tension between subnational governments and the central government/IKN Authority are clearly articulated across five governance readiness dimensions. In the infrastructure dimension, the co-occurrence of *infrastructure*, *agency*, and *readiness* highlights persistent limitations in synchronizing centrally driven projects with regional planning, particularly regarding technical standards, sequencing, and network integration. In the human resources dimension, the linkage between *capacity*, *human*, and *training* reveals a structural mismatch between locally oriented training programs and nationally required institutional competencies that demand higher specialization. In the economic dimension, the dominance of *economic* connected to *remain* and *regional* reflects continued reliance on internal regional markets, with limited cross-regional integration into the broader economic ecosystem supporting IKN. In the environmental dimension, the association among *environmental*, *sustainability*, and *policy* indicates strong compliance with the national sustainability narrative, yet this compliance remains largely normative rather than grounded in strengthened institutional capacity. Finally, in the fiscal dimension, the weak linkage among *fiscal*, *transfer*, and *support* underscores limited vertical fiscal transfers as a central structural source of center–region tension.

TABLE 3 Topic groups qualitative interview analysis.

Cluster and category	Influence	Total nodes	Keywords
1. Economic sustainability	38%	33	Remain, environmental, economic, limited, sustainability, insufficient, weak, program, underdeveloped, capital, priority, long, uneven, constrain, ecological, dominate, primary, growth, sector, consistently, building, awareness, lack, political, remains, scaling, significant, investment, sanitation, protection, implement, activity, goal.
2. Infrastructure access	28%	28	Infrastructure, agency, public, improve, basic, service, logistic, OPD, Bappeda, adequate, road, water, labor, readiness, supply, local, parliament, clean, network, DPRD, regional, access, lag, connectivity, interregional, social, achieve, region.
3. Strategic support	14%	20	Support, capacity, Ikn, strategic, operational, human, function, scale, resource, expansion, district, related, workforce, sufficient, demand, complexity, persist, large, population, generally.
4. Fiscal planning	10%	22	Fiscal, regional, planning, central, budget, development, increasingly, dependence, transfer, improvement, document, alignment, reflecting, academic, policy, limiting, stable, restrict, space, flexibility, embedded, provincial.
5. Competency integration	5%	14	National, system, fully, competency, supporting, training, integration, exist, require, requirement, initiative, synchronize, standard, chain.
6. Civil governance	3%	14	Representative, governance, community, level, strong, civil, required, multus, coordination, continuous, servant, society, negotiation, intergovernmental.
7. Technical specialization	2%	8	Routine, advanced, lacking, productive, technical, specialization, operation, personnel.
8. Economic potential	1%	7	Potential, base, fishery, demonstrate, economy, latent, agriculture.

Source: author-generated through Paranyushkin (2019).

element of regional governance readiness in supporting the development of Indonesia’s new capital.

4.1 Infrastructure readiness

Infrastructure readiness functions as a core element of regional policy capacity within a multi-level governance setting, particularly when subnational units are expected to contribute to Indonesia’s new capital development. Situated within a comparative and multi-level governance perspective, which emphasizes the interaction between centrally mandated projects and subnational implementation capacity (Manshin and Moiseeva, 2022), the analysis evaluates four domains: basic, social, economic, and environmental infrastructure. The relative importance of these domains is illustrated in Figure 4, which visualizes the coding percentages derived from the NVivo crosstab process. Figure 3 explicitly captures the points of interaction and tension between regional infrastructure readiness and central government/ IKN Authority project synchronization, serving as an empirical basis for assessing alignment with national strategic objectives.

The empirical patterns show that environmental infrastructure occupies the highest proportion of coding references (28.90 percent), highlighting the prominence of sustainability-oriented policies such as waste management, sanitation enhancement, and natural resource protection. This emphasis reflects not only local initiatives but also strong alignment with national environmental narratives and sustainability standards promoted by the central government and the IKN Authority. Prior research has consistently underscored that environmental stewardship is crucial for future-oriented regional planning, especially in areas experiencing significant transformations driven by national projects (Malekpour et al., 2015; Milek, 2022). Consequently, the strength of environmental infrastructure suggests

a relatively low level of intergovernmental tension, as regional actions closely follow centrally defined sustainability priorities.

Social infrastructure ranks second with 27.75 percent, indicating active efforts to enhance education, health, and housing service quality. These improvements are vital for preparing local populations to adapt to the demographic and socioeconomic shifts expected to accompany the new capital’s development. Stronger social services also support human capital formation, which is essential for workforce mobility and institutional resilience within the broader governance system. These finding indicates that social infrastructure development remains largely regionally driven, generating coordination challenges when centrally defined service standards, funding schemes, and implementation schedules are not fully synchronized with regional planning processes.

Basic infrastructure, contributing 26.01 percent, reflects a moderate level of readiness, with progress made in road networks, electricity distribution, clean water access, and sanitation. Despite this progress, qualitative evidence indicates that several components remain below national service standards, posing challenges for inter-regional logistical coordination required by the new capital’s development. These gaps constitutes a clear point of tension between the central government’s accelerated infrastructure agenda and the limited fiscal, technical, and administrative capacity of subnational governments to meet national benchmarks simultaneously. Improving basic infrastructure thus becomes pivotal for strengthening vertical coordination between central infrastructure programs and regional implementation frameworks.

Economic infrastructure exhibits the lowest coding proportion (17.34 percent), pointing to persistent weaknesses in irrigation networks, trade facilities, and other systems that underpin productive economic activity. This underperformance carries significant implications for regional policy capacity, given that robust economic

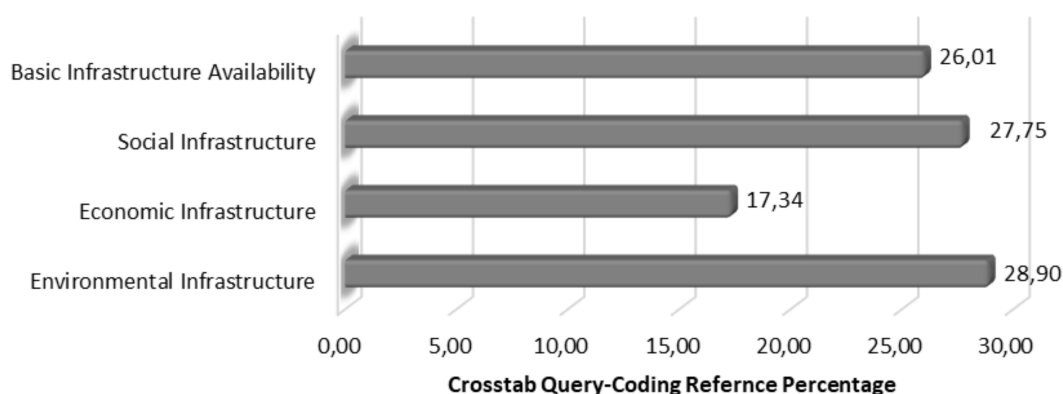


FIGURE 4

Crosstab analysis of regional infrastructure development indicators. Source: results of data processing by researchers (2025).

infrastructure is essential for supply chain stability, market access, and long-term integration with the new capital's economic ecosystem. As reflected in Figure 4, limited economic infrastructure intensifies center–region dependency and constrains the region's ability to synchronize with nationally planned economic and logistical functions of IKN. The imbalance across infrastructure categories demonstrates uneven governance readiness, with environmental and social domains advancing more rapidly than economic and basic sectors. Addressing these disparities requires strengthened planning mechanisms, enhanced fiscal coordination, and improved intergovernmental collaboration to achieve comprehensive governance alignment within the multi-level governance framework.

4.2 Human resource and labor capacity

Human resources constitute a critical dimension of regional policy capacity within a multi-level governance framework, especially when subnational jurisdictions are expected to support the development of Indonesia's new capital. Consistent with human capital and comparative governance perspectives, which underscores skills and education as long-term investments while highlighting vertical coordination constraints (Galiakberova, 2019; Iwang et al., 2023; Ogundari and Awokuse, 2018), this study examines four indicators: number of skilled workers, participation in training and education programs, availability of higher education institutions, and labor force participation rate. The distribution of coding references across these indicators is presented in Figure 5 reveals a structural mismatch between locally driven training initiatives and nationally required institutional competencies, identifying human resources as a key site of center–region tension in supporting IKN.

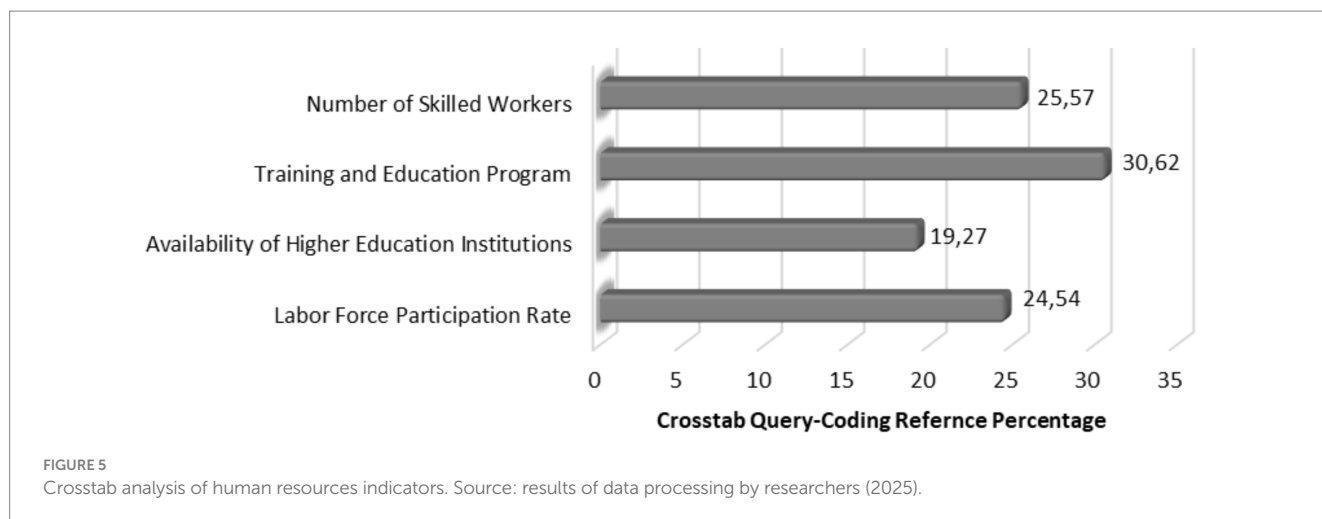
The crosstab results reveal that training and education programs dominate the coding distribution with 30.62 percent, indicating the centrality of continuous skills development within locally driven workforce strategies. This strong emphasis reflects predominantly regional institutional efforts to enhance employability through targeted technical and vocational programs designed to respond to locally perceived labor needs linked to IKN. Such programs partially support adaptive governance processes by enabling subnational actors to strengthen their human resource base, but

remain insufficient to meet nationally required institutional and administrative competencies. The prominence of training initiatives suggests a governance orientation that prioritizes human capital development, while simultaneously revealing coordination gaps between regional capacity-building efforts and national institutional demands.

The second-highest proportion, 25.57 percent, pertains to the number of skilled workers, indicating a relatively sizeable workforce with sector-specific competencies built through formal and non-formal education pathways. This composition demonstrates that the region possesses a foundation of labor capacity capable of contributing to regional economic and administrative functions required for supporting the new capital. Similarly, the labor force participation rate, coded at 24.54 percent, reinforces this readiness by illustrating strong willingness among working-age populations to engage in productive activities. A high participation rate also indicates coordination capacity in connecting labor demand and supply, an essential component of multi-level governance coordination.

In contrast, the availability of higher education institutions shows the lowest coding percentage at 19.27 percent, reflecting persistent challenges in building nationally aligned advanced educational capacity. Limited institutional coverage constrains the development of specialized skills, research capabilities, and institutional expertise—areas crucial for supporting complex governance demands associated with cross-level collaboration and national strategic projects. This gap highlights a structural weakness in long-term human resource development and exposes subnational actors to continued dependency on external educational centers. Within a multi-level governance context, insufficient higher education infrastructure reduces the ability of regional institutions to independently generate nationally required high-skilled labor and weakens overall policy capacity.

Collectively, these findings align with Human Capital Theory by demonstrating that skill formation, training intensity, and labor market engagement significantly shape regional readiness within asymmetrical multi-level governance arrangements. As illustrated in Figure 5, the strong performance in training and moderate levels of skilled labor suggest a workforce capable of contributing to the administrative and economic demands of the new capital, yet primarily within locally defined capacity-building framework. However, gaps in higher education availability underline the need for



more centrally coordinated strategic investments to produce advanced competencies and institutional and administrative resilience. Strengthening educational infrastructure and expanding competency-based training will therefore be essential for enhancing regional policy capacity, reducing vertical intergovernmental asymmetries, and ensuring that subnational actors can effectively participate in multi-level governance processes under the coordination requirements of the central government and the IKN Authority.

4.3 Economic potential

Economic potential represents a crucial component of regional policy capacity within a multi-level governance framework, particularly when subnational regions are expected to contribute to the economic foundation of Indonesia's new capital. Situated within an economic growth and multi-level governance perspective, which posits that growth is driven by capital accumulation, technological progress, and labor productivity (Ogundari and Awokuse, 2018), this study evaluates four indicators: Gross Domestic Product (GDP), Gross National Product (GNP), productivity, and employment–unemployment rates. The distribution of coding references across these indicators is presented in Figure 6, derived from NVivo crosstab analysis, which illustrates the interaction between regionally generated economic performance and nationally expected interregional economic integration.

Figure 6 show that GDP holds the largest share of coded references at 29.78 percent, indicating that overall economic output forms the most substantial element of regional economic readiness. This emphasis reflects the continued expansion of key productive sectors such as agriculture, fisheries, and services, which collectively contribute to the region's capacity to support logistical and developmental demands related to the new capital. The findings indicate that economic output remains largely inward-looking, reinforcing dependence on internal markets rather than integration into cross-regional value chains coordinated at the national and IKN levels, enabling subnational actors to participate more effectively in national-scale development initiatives. These conditions reinforce the region's relevance within the broader multi-level governance system.

Productivity constitutes the second-highest proportion at 26.24 percent, underscoring the importance of efficient resource use and competitiveness within regional economic systems. Higher productivity indicates more effective mobilization of labor and capital, strengthening regional resilience and positioning subnational jurisdictions to contribute to the supply chain and service demands associated with new capital development. The emphasis on productivity also highlights internal governance capacity, as efficiency gains are closely linked with institutional planning, targeted investment, and policy coherence. The findings show that productivity gains are predominantly confined to local economic circuits, limiting their scalability and contribution to nationally structured economic corridors supporting IKN. This pattern reflects a coordination gap between regional efficiency improvements and national economic integration agendas.

Employment and unemployment rates, coded at 23.85 percent, illustrate the dynamics of labor absorption and labor availability within the regional economy. Employment gains demonstrate ongoing efforts to expand job opportunities, while reduced unemployment reflects success in integrating workers into productive sectors. The findings show that labor absorption is concentrated in locally oriented sectors, constraining the region's role in supplying labor for interregional and IKN-centered economic activities designed at the national level. The balance between employment creation and workforce participation indicates that economic actors at the subnational level are progressively strengthening their ability to support the new capital's human resource requirements.

In contrast, GNP shows the lowest proportion at 20.13 percent, indicating that income generated from interregional and external economic activities remains limited. While a strong domestic economic base is evident, the relatively low external income contribution suggests persistent constraints for expanding interregional and international economic linkages. This limitation highlights constraints in cross-regional economic integration, investment attraction, and export-oriented activity. From a multi-level governance perspective, increasing GNP would enhance the region's fiscal flexibility and decrease dependence on internally oriented markets, thereby improving its capacity to sustain long-term engagement in the new capital's economic ecosystem. Strengthening these external economic ties remains a critical coordination priority

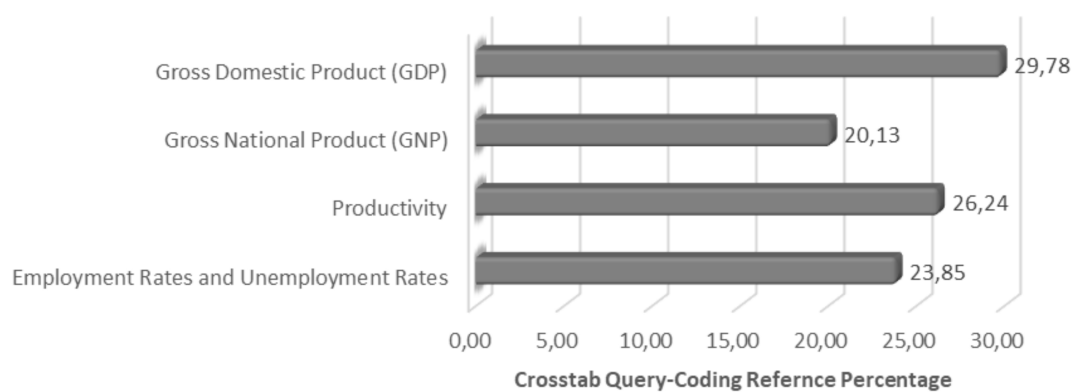


FIGURE 6

Crosstab analysis of economic growth indicators. Source: results of data processing by researchers (2025).

between regional governments and the central government/IKN Authority for future development.

4.4 Human resources and availability of skilled labor

Environmental sustainability forms a critical pillar of regional policy capacity within multi-level governance, particularly for subnational jurisdictions expected to support Indonesia's new capital. Anchored in sustainable development theory, which emphasizes meeting present needs without compromising future generations' ability to meet theirs (Adams et al., 2019; Yousuf et al., 2016), this analysis incorporates four indicators: economic growth, social inclusion, environmental protection, and institutional capacity. The distribution of coded references for these indicators is presented in Figure 7, illustrating the relative prioritization of sustainability dimensions and providing insights into how regional governance structures comply with and respond to environmental considerations into broader nationally defined development strategies.

The results reveal that environmental protection dominates the coding distribution at 34.84 percent, underscoring the strong emphasis on managing natural resources, improving waste systems, and strengthening ecological safeguards. This prominence aligns with centrally articulated national sustainability narratives, positioning the new capital as a model of sustainability, requiring supporting regions to demonstrate compliance with ecological resilience standards set by the central government and the IKN Authority. The substantial focus on environmental protection suggests the presence of institutional awareness regarding long-term resource stewardship. It also indicates that subnational actors are beginning to align their developmental agendas with national sustainability mandates, which is crucial for ensuring ecological balance within the multi-level governance framework surrounding new capital development.

Economic growth follows with 29.96 percent, reflecting contributions from productive sectors such as agriculture, fisheries, and services that continue to strengthen regional economic stability. This economic base is essential for sustaining public investment capacity and enabling subnational actors to participate more effectively in national strategic projects. Meanwhile, social inclusion, at 25.72

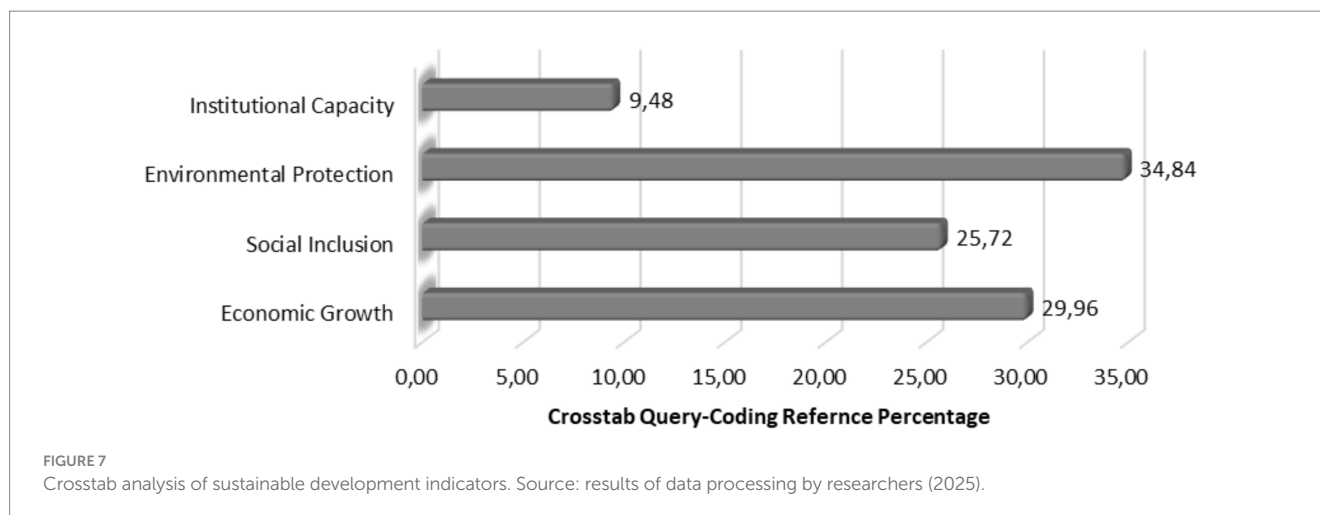
percent, highlights efforts to provide equitable access to education, health services, and community support programs. These efforts are integral to reducing development disparities and ensuring that population groups benefit from broader sustainability initiatives formulated at the national level and tied to the new capital's development trajectory.

Despite these strengths, institutional capacity records the lowest proportion at 9.48 percent, revealing persistent governance challenges that limit long-term sustainability performance. Weaknesses in planning, coordination, and regulatory enforcement hinder efforts to translate national sustainability commitments into concrete outcomes. This gap also reflects structural limitations in administrative capability, which affects regional readiness to engage cohesively in multi-level governance arrangements. Without stronger institutions, sustainability achievements in other dimensions—such as environmental stewardship and social inclusion—risk stagnation, particularly as demands for vertical coordination with the central government and the IKN Authority intensify alongside the development of the new capital.

The findings illustrate that environmental sustainability is emerging as a regional priority, yet institutional capacity gaps constrain the full realization of sustainability goals. Sustainable development theory stresses the importance of balancing economic performance, social inclusion, and ecological protection, all of which require robust institutional foundations. To effectively support the new capital's development, subnational regions must strengthen administrative capability, enhance strategic planning, and improve regulatory coherence in alignment with national sustainability frameworks. Addressing these institutional weaknesses is essential for achieving long-term sustainability, reducing governance asymmetries, and enabling more effective integration within Indonesia's multi-level governance framework, as summarized in Figure 7.

4.5 Fiscal capacity

Fiscal capacity represents an essential dimension of regional policy capability within a multi-level governance context, especially when subnational actors are expected to contribute to Indonesia's new capital development. Drawing on public finance theory—which



emphasizes how governments mobilize revenue and allocate resources to meet public needs (Chakunda et al., 2021; Groenendijk, 2023)—this study examines four indicators: sources of local revenue, investment capability, central government support, and the ability to attract investors. The distribution of coded references for these indicators is illustrated in Figure 8, providing insight into how fiscal structures mediate interaction and generate tension between regional governments and the central government/IKN Authority in fulfilling national development responsibilities.

The results reveal that investment capability holds the largest coding proportion at 29.12 percent, indicating that regional governments exhibit considerable ability to fund capital expenditures, particularly infrastructure-related projects relevant to the new capital. This strong investment orientation reflects internal fiscal prioritization and suggests that subnational authorities possess sufficient discretion to allocate resources toward strategic initiatives. The prominence of this indicator also signals a level of governance maturity in managing public funds, which is critical for sustaining long-term regional participation in multi-level development frameworks despite limited vertical fiscal transfers.

Sources of local revenue, contributing 25.84 percent, and investor attraction capability, at 25.68 percent, show relatively balanced contributions. This balance indicates that regional governments are increasingly diversifying income streams through local taxation, service charges, and private-sector partnerships. The ability to attract investors also reflects regional competitiveness, signaling that the business climate can draw capital inflows that complement public funding. Both indicators highlight active fiscal strategies aimed at reducing dependency on central transfers while increasing financial autonomy a response to constrained fiscal support from the central government—an important feature of effective multi-level governance. These dynamics strengthen overall policy capacity and enhance regional resilience.

By contrast, central government support registers the lowest proportion at 19.36 percent, revealing a notable gap in vertical fiscal alignment. While subnational regions are expected to contribute to national strategic projects, the relatively modest central allocations may limit their operational capacity and create asymmetries in governance responsibilities. Public finance theory underscores the importance of intergovernmental fiscal transfers for addressing

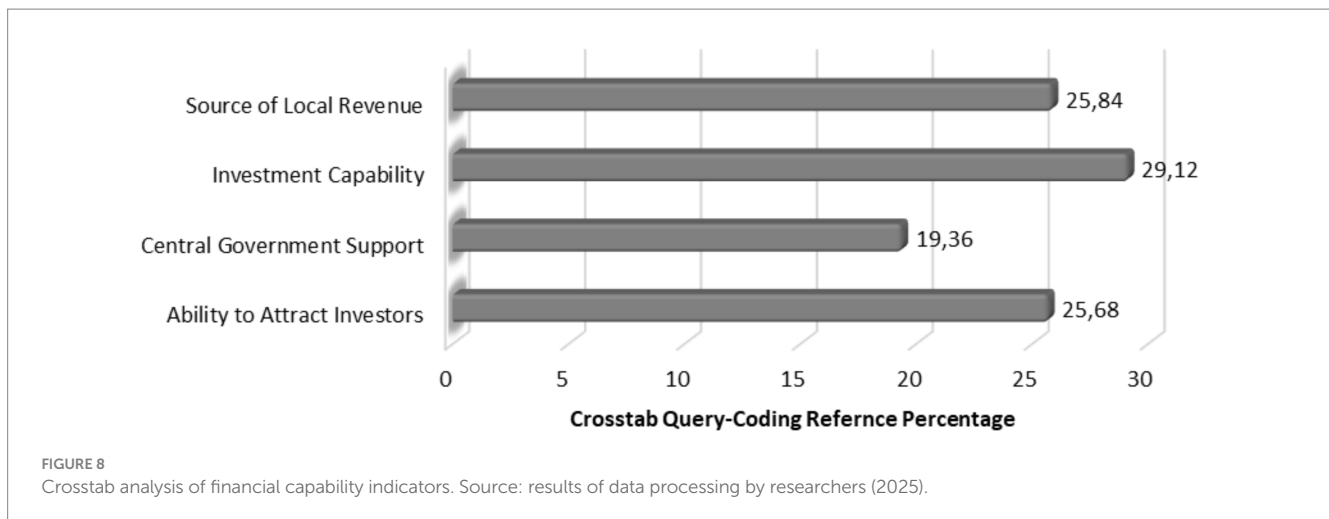
regional disparities and enabling cohesive national development. The limited central support thus highlights weak vertical fiscal transfers as a core point of tension between regional governments and the central government/IKN Authority, suggesting that stronger fiscal coordination is needed to ensure balanced roles and responsibilities within Indonesia's evolving multi-level governance landscape.

Taken together, the results demonstrate a complex fiscal landscape in which strong regional investment capability and diversified revenue sources coexist with weaker central support. While these strengths illustrate promising financial autonomy, the limited vertical fiscal transfers highlight vulnerabilities that may hinder long-term engagement in the new capital's development. Public finance theory reaffirms that sustainable development requires synergy between regional capacity, private investment, and central funding. Strengthening fiscal coordination, expanding investment incentives, and improving regional financial management frameworks would enhance policy capacity and reduce governance asymmetries arising from vertical fiscal dependency, as summarized in Figure 8. These measures are essential for enabling subnational actors to effectively contribute to Indonesia's national development agenda.

5 Discussion and implications

5.1 Discussion

The findings reveal that governance readiness across the five assessed dimensions is uneven, indicating structural imbalances within the multi-level governance (MLG) framework characterized by vertical coordination challenges surrounding IKN development. The data show that environmental protection and social infrastructure receive disproportionate emphasis relative to economic and institutional domains, reflecting similar patterns observed in previous sustainability-oriented research, where ecological programs tend to advance more rapidly than institutional strengthening efforts (Malekpour et al., 2015; Mišek, 2022). This imbalance also corresponds with the literature on power asymmetry, that often emerge in unitary systems, where subnational governments operate with constrained autonomy and limited fiscal leverage (Pierre and Peters, 2005). Such asymmetries help explain why institutional capacity—one of the most critical drivers of long-term



governance effectiveness—remains the weakest dimension despite growing strategic demands placed on supporting regions.

These patterns also highlight important relational dynamics between regional capabilities and the expectations of the central government and the IKN Authority. The weak institutional and fiscal dimensions observed in the results suggest that subnational units have not yet reached the level of administrative robustness required for full integration into the governance structure envisioned for IKN, reflecting a form of vertical coordination failure between policy design at the center and implementation capacity at the regional level. This supports prior arguments that multi-level governance requires synchronized policy mandates, clear role delineation, and strong coordination mechanisms to avoid fragmented decision-making (Mutiarin and Lawelai, 2023; Treib et al., 2007). The contrast between strong labor participation and weaker institutional readiness also aligns with human capital literature, which emphasizes that skills development alone is insufficient unless organizational systems can translate workforce potential into effective governance outputs (Lajili, 2015; Brown et al., 2020). Thus, the mismatch between human capability and institutional capability emerges as one of the most critical findings of this study, demonstrating that strong human resources do not automatically translate into institutional readiness under conditions of asymmetric governance.

The results further contribute to comparative governance scholarship by demonstrating how readiness gaps manifest differently across infrastructure, economic capacity, environmental sustainability, and fiscal systems. Previous studies tend to focus on Kalimantan's adjacent buffer areas (Arfiansyah et al., 2024; Setyanto et al., 2023; Sulasno and Suchyo, 2023), but this study shows that non-adjacent supporting regions face distinct challenges shaped by geographic distance, limited vertical fiscal transfers as an expression of fiscal power asymmetry, and structural dependency on central mandates. The lower level of central government support found in this study also resonates with public finance theory, which emphasizes the importance of equitable redistribution for coherent national development (Bauhr and Charron, 2018; Petrova, 2021). Collectively, these findings demonstrate that governance readiness for IKN cannot be interpreted solely in terms of technical capacity but must be understood as a reflection of multi-level institutional interdependencies and the systemic constraints that accompany them.

The findings confirm that fiscal weaknesses reflect unequal central-regional relations, where limited vertical fiscal transfers

constrain subnational autonomy and reproduce structural dependency, a pattern widely observed in decentralized and hybrid systems (Leiceaga and Peñas, 2016; Zhang, 2006). At the same time, the evidence shows that strong human resources do not automatically translate into institutional readiness, as coordination failures, regulatory rigidity, and weak governance mechanisms inhibit the effective conversion of skills into organizational capacity. This dynamic closely parallels ASEAN experiences—particularly in Vietnam and other developing Southeast Asian contexts—where capable labor pools coexist with weak institutions, slow policy implementation, and persistent power asymmetries across governance levels (Garschagen and Marks, 2019; Te et al., 2018).

5.2 Implications

The findings of this study contribute to the broader field of comparative governance by demonstrating how multi-level governance readiness is shaped by interdependence between infrastructure systems, human capital, economic structures, environmental commitments, and fiscal arrangements. The uneven performance across governance dimensions, particularly the gap between strong environmental stewardship and weak institutional capacity, supports theoretical arguments that governance effectiveness in unitary states is constrained by vertical power asymmetry and coordination failures across government levels (Pierre and Peters, 2005; Treib et al., 2007). This study extends these insights by presenting empirical evidence of how such asymmetries shape readiness for large-scale, nationally driven projects such as IKN, thereby reinforcing the importance of institutional clarity, coordination quality, and aligned policy mandates (Mutiarin and Lawelai, 2023). The findings also enrich human capital and public finance theories by showing that skilled labor and investment capability cannot compensate for institutional or fiscal weaknesses without systemic governance strengthening (Bauhr and Charron, 2018; Petrova, 2021). This study contributes to a readiness-based analytical lens that can be applied to evaluate governance performance in emerging economies.

From a policy and implementation standpoint, the results highlight several strategic priorities that must be addressed for subnational regions to effectively support Indonesia's new capital. The strong emphasis on environmental protection and workforce

engagement indicates promising areas of readiness; however, persistent institutional and fiscal gaps, especially weak vertical fiscal transfers require targeted interventions. Strengthening institutional capacity—through leadership development, clearer mandates, data-driven planning, and cross-sectoral governance mechanisms—is essential to improving alignment with the IKN Authority and central ministries (Ewing et al., 2024; Fuseini and Kemp, 2015). Practical improvements should also focus on expanding higher education infrastructure, enhancing technical and vocational training, correcting vertical coordination failures through more predictable intergovernmental fiscal support, and improving investment attractiveness to reduce dependency on central transfers (Al Naimi, 2022; Rao et al., 2023). These reforms will not only enhance regional resilience but also ensure that subnational governments can contribute more reliably to the long-term sustainability, logistical support, and administrative demands of Nusantara.

6 Conclusion

This study assessed governance readiness and regional policy capacity across five core dimensions—infrastructure readiness, human resources, economic potential, environmental sustainability, and fiscal capacity—to determine the extent to which a supporting subnational region can contribute to Indonesia's new capital development. The findings demonstrate uneven readiness, with strengths concentrated in environmental sustainability and labour participation, while institutional capacity and weak intergovernmental fiscal coordination remain the most significant constraints. These patterns confirm the presence of the power asymmetry and vertical coordination challenges typical of multi-level governance in unitary systems, aligning with prior scholarship on actor constellations, institutional alignment, and cross-level interdependencies. Collectively, the results indicate that governance readiness cannot be assessed solely through technical metrics but must be understood as an interplay of institutional, economic, environmental, and fiscal systems within an asymmetrical multi-level governance structure.

The study offers two principal implications. Theoretically, it contributes empirical evidence to comparative governance debates by showing how variations in institutional strength and fiscal autonomy shape subnational readiness to support nationally driven strategic projects, thereby extending multi-level governance and policy capacity frameworks to the context of state-led capital relocation. Practically, the findings highlight the need for context-specific policy pathways, including strengthened intergovernmental fiscal coordination mechanisms, the positioning of provinces as functional hinterlands for IKN, and the integration of regional higher education systems with nationally defined development agendas, to ensure full alignment with the governance expectations embedded in IKN's long-term design. These implications underscore the importance of balanced capacity-building across the five readiness dimensions, as no single domain is sufficient to enable meaningful participation in the new capital's governance architecture under Indonesia's decentralized governance system.

Although this study provides comprehensive insights, it is not without limitations. The analysis is based primarily on qualitative

and descriptive data, which may not fully capture dynamic temporal changes or the evolving nature of central–regional relations. Future research would benefit from incorporating longitudinal datasets, multi-regional comparisons, and deeper analysis of coordination processes between the central government, the IKN Authority, and subnational administrations. Expanding the methodological approach to include quantitative modelling and institutional ethnography would also help refine understanding of governance readiness in complex multi-level systems, particularly in the context of Indonesia's ongoing decentralization and large-scale national development initiatives.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required from the participants or the participants' legal guardians/next of kin in accordance with the national legislation and institutional requirements because this study did not involve experiments on humans or animals, did not collect personal or sensitive data, and relied solely on interviews with adult participants in their professional capacity. All participants were informed about the purpose of the study and voluntarily provided consent to participate. No identifying personal information was recorded or reported, and all data were handled in accordance with standard ethical guidelines for social science research.

Author contributions

AU: Writing – original draft, Formal analysis, Project administration, Methodology, Investigation, Conceptualization, Writing – review & editing. AS: Data curation, Writing – review & editing, Methodology, Formal analysis. CF: Validation, Writing – review & editing, Data curation, Investigation. AK: Data curation, Validation, Writing – review & editing, Resources. MR: Formal analysis, Writing – review & editing, Visualization, Software. Burhanuddin: Writing – review & editing, Supervision. HL: Writing – review & editing, Methodology, Visualization, Conceptualization.

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Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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