

A Quantitative SWOT Analysis of the Detailed Spatial Plan for the Nusantara Capital City East 1 Planning Area

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Abstract

Purpose: This study examines the internal and external strategic factors shaping implementation of the Detailed Spatial Plan, known as *Rencana Detail Tata Ruang* (RDTR), for the East 1 Planning Area of Indonesia's new capital, Nusantara, and identifies the strategic position and development direction that the plan should pursue.

Methodology: A descriptive qualitative and quantitative approach was applied through a quantitative Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis, in which internal strength and weakness factors and external opportunity and threat factors were each assigned a weight and a score, multiplied to produce weighted values, and summarized in Internal Factor Analysis Summary and External Factor Analysis Summary matrices.

Results: The internal factor matrix produced a total weighted score of 2.93 and the external factor matrix produced a total weighted score of 2.83, placing the plan in the aggressive, growth oriented quadrant of the internal external matrix, where internal strengths and external opportunities outweigh internal weaknesses and external threats.

Conclusions: Strong national regulatory backing, the green and smart city concept, integrated spatial and transportation planning, and central government support constitute the plan's principal strengths, while financing needs, infrastructure readiness, and social and environmental risk remain the principal constraints requiring active management.

Limitations: The descriptive, cross-sectional design relies on secondary documentary data and expert style weighting rather than primary survey data.

Contributions: The study offers a replicable quantitative SWOT framework for evaluating detailed spatial plans in large scale, state led urban development projects.

Keywords: *Detailed Spatial Plan, Nusantara Capital City, Regional Development, Strategic Planning, SWOT Analysis*

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1. Introduction

Indonesia's decision to relocate its national capital from Jakarta to East Kalimantan reflects a long standing policy ambition to achieve a more balanced pattern of national development. For decades, national development activity concentrated disproportionately on the island of Java, producing chronic traffic congestion, widening economic disparities, and mounting environmental pressure in

and around Jakarta ([Republik Indonesia, 2022](#)). In response, the government committed to building the Nusantara Capital City, known by its Indonesian abbreviation IKN (Ibu Kota Nusantara), as a long term project intended to produce a more advanced, sustainable, and internationally competitive seat of government ([Hasibuan, 2019](#)).

The Nusantara project is not conceived merely as a relocation of government offices. It is explicitly framed as an opportunity to build a future oriented city organized around the concepts of a green city, a smart city, and a low carbon urban form. Achieving efficient and effective use of urban space while safeguarding environmental sustainability under this vision requires an integrated spatial planning system capable of translating high level policy ambition into enforceable, location specific rules ([Sutaryono, 2021](#)). The Detailed Spatial Plan, known in Indonesian planning practice as the RDTR, is the instrument through which this translation occurs, since it establishes zoning regulations, infrastructure development guidance, settlement and economic area boundaries, transportation network structure, and protected area designations at a level of spatial detail that the higher level national and provincial spatial plans do not provide ([Republik Indonesia, 2007](#)).

The regulatory foundation for the present study is the Head of the Nusantara Capital Authority Regulation Number 3 of 2023, which formally establishes the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City. This regulation forms part of the broader legal architecture through which the government is implementing IKN development, and it specifies the spatial structure, spatial pattern, transportation network system, zoning provisions, and strategic area utilization guidelines that govern development in the East 1 area ([Otorita Ibu Kota Nusantara, 2023](#)). The East 1 Planning Area occupies a strategically significant position within the broader IKN development area, since it is intended to function as a center of government activity and contemporary urban life organized around artificial intelligence enabled urban governance, integrated transportation, energy efficiency, and open green space. This combination of functions makes the East 1 Detailed Spatial Plan a particularly important instrument for advancing the broader ambitions of Indonesia's new capital.

Despite its modern and carefully planned design concept, implementation of the East 1 Detailed Spatial Plan continues to face substantial challenges. These include the very large financing requirement associated with basic infrastructure development, uneven readiness of foundational infrastructure, limited local human resource capacity, and the possibility of social and land related conflict in areas undergoing rapid construction. Large scale development of this kind also carries a risk of environmental degradation where spatial utilization is not adequately supervised ([Agustino, 2020](#)). At the same time, IKN development offers substantial opportunities for national and regional economic growth, including increased investment, new employment creation, accelerated development of the wider East Kalimantan region, and a transformation of urban governance built on advanced technology, all of which can support successful implementation of the Detailed Spatial Plan if they are managed well and pursued in a sustainable manner ([David, 2017](#)).

A structured strategic analysis is required to identify the strengths, weaknesses, opportunities, and threats that determine the internal and external conditions affecting implementation of the East 1 Detailed Spatial Plan. SWOT analysis is a well established instrument for this purpose, since it does not merely enumerate strategic factors but also helps to establish the strategic position and the development strategy most appropriate for supporting successful plan implementation ([Rangkuti, 2018](#)). In the specific context of large scale, state led capital city projects, several recent studies have similarly turned to structured strategic and comparative frameworks to evaluate Nusantara's development trajectory, including comparative assessments of capital relocation processes across countries and evaluations of massive land based interventions associated with new capital construction ([Hackbarth & de Vries, 2021](#); [Julian Perdana, 2024](#)). This body of work reinforces the relevance of a systematic strategic analysis for the East 1 Planning Area specifically, since the area's designated role as a governance and technology forward urban center raises the stakes of getting its spatial plan implementation right.

The implementation of spatial planning in a newly developed capital city requires more than regulatory compliance because it involves the coordination of multiple actors, institutional capacity, environmental governance, and adaptive planning mechanisms ([Zhang, Shen, & Skitmore, 2020](#)). Recent studies on sustainable urban development emphasize that large scale urban transformation projects frequently encounter implementation gaps between spatial policy formulation and practical development outcomes due to differences in governance capacity, stakeholder interests, and socio environmental conditions ([Sharifi, 2021](#)). In this context, spatial planning instruments such as the RDTR must be supported by strategic evaluation approaches that are capable of identifying internal institutional readiness as well as external pressures that may influence implementation effectiveness. Research on smart and sustainable cities further indicates that technological ambition alone is insufficient to ensure successful urban transformation, as smart city initiatives require strong governance frameworks, integrated planning systems, and continuous evaluation of social, economic, and environmental dimensions ([Pereira, Parycek, Falco, & Kleinhans, 2020](#)). Moreover, studies of capital relocation and new city development demonstrate that the success of planned capitals depends heavily on the ability of governments to balance economic growth objectives with environmental protection, public participation, and long term spatial resilience ([Moser, 2021](#)). In developing countries, where institutional coordination and infrastructure capacity remain critical challenges, strategic management approaches are increasingly considered essential for ensuring that spatial plans can be effectively translated into sustainable urban development outcomes ([Sutriadi, 2022](#)). Therefore, analyzing the strengths, weaknesses, opportunities, and threats associated with the implementation of the East 1 Detailed Spatial Plan is important not only for evaluating the current readiness of IKN development but also for formulating adaptive strategies that can support the realization of Nusantara as a sustainable, technology oriented, and globally competitive capital city ([Moleong, 2021](#)).

This study applies a quantitative SWOT analysis, in which each strategic factor is assigned a weight and a score so that the resulting analysis is more systematic, objective, and measurable than a purely descriptive strategic review. The quantitative SWOT analysis of the East 1 Planning Area Detailed Spatial Plan is intended to provide a comprehensive picture of the potential problems and the most appropriate strategies for supporting sustainable development of the Nusantara Capital City, and to contribute a replicable evaluative framework that can inform the design and sequencing of policy interventions as the project proceeds through its subsequent construction phases.

2. Literature Review

2.1 Detailed Spatial Planning and Regional Development

Spatial planning theory holds that a Detailed Spatial Plan functions as the operational bridge between broad national or provincial spatial policy and the specific zoning, land use, and infrastructure decisions that shape how a particular area actually develops. In the Indonesian legal system, this function is formalized through Law Number 26 of 2007 concerning Spatial Planning, which establishes zoning, infrastructure development, settlement area, economic area, transportation, and protected area provisions as the substantive content of a Detailed Spatial Plan ([Republik Indonesia, 2007](#)). A Detailed Spatial Plan of this kind provides legal certainty for directed regional development, since it specifies in advance the permitted and prohibited uses of land within a defined planning area, thereby reducing the uncertainty that would otherwise surround investment and construction decisions.

For newly established urban areas built under a compressed development timeline, the Detailed Spatial Plan carries additional significance because it must simultaneously accommodate rapid infrastructure construction and long term sustainability objectives. Studies of massive land based interventions associated with capital city relocation projects find that the scale and speed of land acquisition and infrastructure construction required by such projects introduce distinctive planning and governance challenges that differ from those found in the incremental development of existing cities ([Hackbarth & de Vries, 2021](#)). This literature supports treating the East 1 Detailed Spatial Plan not merely as a routine zoning instrument but as a strategic mechanism whose implementation success depends on a wider set of institutional, financial, and social conditions that extend beyond the technical content of the plan itself.

2.2 Green City, Smart City, and Sustainable Urban Development

The Nusantara Capital City project is explicitly framed around the concepts of the green city and the smart city, both of which have accumulated a substantial evidence base in the recent Indonesian urban planning literature. Research on building green smart city capabilities in South Sumatra demonstrates that Indonesian regional governments have increasingly sought to combine environmentally sensitive urban design with information and communication technology enabled public services, though the same research documents that achieving this combination in practice requires sustained institutional capacity building rather than a one time technology deployment ([Hasmawaty et al., 2022](#)). Applied specifically to the Nusantara project, an assessment of the implementation of an inclusive, so called City for All concept within the new capital finds that the smart and green city perspective embedded in national planning documents creates ambitious design targets whose realization depends heavily on how effectively supporting infrastructure and governance arrangements are sequenced during the early construction phases ([Jati et al., 2023](#)). This finding is directly relevant to the East 1 Planning Area, whose Detailed Spatial Plan explicitly incorporates artificial intelligence enabled governance, integrated transportation, and energy efficient design as core planning objectives ([Sutaryono, 2021](#)).

Climate and environmental considerations add a further dimension to the green city agenda. Analysis of climate adaptation to multi hazard climate related risks across ten Indonesian cities finds that ambitious sustainability commitments in urban master planning documents are frequently constrained in practice by limited local implementation capacity and by competing short term development pressures ([Gaborit, 2022](#)). This tension between ambition and implementation capacity is a recurring theme in the broader literature on Nusantara specifically, and it motivates treating infrastructure readiness and human resource capacity as central weaknesses to be assessed in the SWOT framework developed below rather than as secondary implementation details.

2.3 Investment, Regional Economic Growth, and Institutional Support

A second strand of the literature addresses the economic and institutional dimensions of the Nusantara project. Analysis of the legal and economic prospects of the new capital city policy finds that the strength and consistency of the regulatory framework surrounding IKN development function as a critical signal to prospective investors, since legal certainty reduces the perceived risk associated with committing capital to a large, multi decade infrastructure program ([Kamal, 2022](#)). This finding directly supports treating strong national regulatory backing as an internal strength within the SWOT framework used in this study, since the presence of a dedicated capital authority and a specific implementing regulation for the East 1 area reduces the ambiguity that might otherwise discourage investment.

Complementary evidence on the geopolitical and geographic dimensions of the relocation decision situates Nusantara within a broader regional development and national resilience agenda, arguing that the new capital's position is intended to strengthen Indonesia's strategic posture within the wider Asia Pacific region while simultaneously advancing the equity oriented goals of national development ([Enderwati et al., 2024](#)). Related analysis of the government's decision making process across geographic, socio political, and economic dimensions similarly frames the relocation as a deliberate instrument of regional rebalancing rather than a purely administrative decision, reinforcing the view that the opportunities associated with IKN development, including new investment flows and the formation of a growth pole outside Java, are structurally embedded in the project's core rationale rather than incidental side effects ([Sriyono et al., 2024](#)). These findings support classifying investment growth, regional economic diversification, and job creation as substantial external opportunities within the SWOT analysis developed for the East 1 Planning Area.

2.4 Environmental Risk, Land Use Conflict, and Social Impact

Large scale urban development inevitably generates environmental and social risks that must be weighed against its developmental benefits. A detailed multidimensional conflict analysis of land use transition in the IKN Nusantara area between 2003 and 2023 documents a marked increase in built up area and a corresponding decline in agricultural and natural vegetation cover, with implications for biodiversity conservation, food security, and the livelihoods of rural and Indigenous communities in

the vicinity of the development area ([Syaban & Appiah-Opoku, 2024](#)). This evidence directly substantiates the environmental degradation risk and land related social conflict identified as external threats in the present analysis, and it underscores the importance of inclusive governance and active community participation as mitigating mechanisms, a conclusion that closely parallels the recommendations developed in the strategy formulation section of this paper.

Complementary research on resource management within the IKN area, including analysis of the potential for repurposing former coal mine voids as clean water sources for the new capital, illustrates that the region's existing land use legacy creates both constraints and opportunities that a purely greenfield planning approach would not need to confront ([Hasan & Sarwono, 2024](#)). This literature collectively suggests that the East 1 Planning Area's Detailed Spatial Plan must be evaluated not only against its own stated design objectives but against the wider environmental and social context inherited from the region's pre-existing land use patterns.

2.5 Propositions Developed for the SWOT Analysis

Building on the theoretical and empirical literature reviewed above, this study develops the analysis around two guiding propositions rather than conventional statistical hypotheses, consistent with the descriptive, strategic evaluation purpose of a quantitative SWOT study. The first proposition concerns the internal strategic balance of the East 1 Detailed Spatial Plan, and the second concerns its external strategic balance, together determining the strategic quadrant in which the plan is positioned.

P1: Internal strength factors, including national regulatory support, the green and smart city concept, integrated spatial and transportation planning, and central government backing, outweigh internal weakness factors, including large financing requirements, infrastructure readiness gaps, and social risk, producing a net positive internal factor score for the East 1 Detailed Spatial Plan.

P2: External opportunity factors, including increased investment, new economic growth centers outside Java, smart city technology development, and international cooperation, outweigh external threat factors, including environmental degradation risk, land and social conflict, global economic uncertainty, and political change, producing a net positive external factor score for the East 1 Detailed Spatial Plan.

3. Research Methodology

3.1 Analytical Approach

This study uses a descriptive qualitative and quantitative approach to analyze implementation conditions surrounding the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City. The descriptive component is used to characterize the internal and external factors affecting the planning area's development process, while the quantitative component applies SWOT analysis in which each strategic element is scored and weighted so that the resulting analysis can be measured systematically and objectively rather than relying solely on qualitative judgment ([Ramones, 2025](#)).

The SWOT approach was selected because it is well suited to identifying strengths, weaknesses, opportunities, and threats in the implementation of spatial planning policy specifically, and because it assists in determining an appropriate strategic position and a set of policy recommendations that correspond to the actual condition of the planning area. Spatial planning studies frequently rely on SWOT analysis to evaluate the effectiveness of regional development policy and space utilization control, a methodological precedent that supports its application here ([Dzulfadhli et al., 2021](#)). Understanding the Nusantara Capital City project additionally requires attention to the relationship between spatial policy, regional development, and environmental sustainability, which is achieved in this study through a descriptive analytical method appropriate to a subject matter that spans physical, socio economic, institutional, and environmental dimensions simultaneously ([Utami, 2021](#)).

3.2 Data Collection Techniques

Secondary data used in this analysis were obtained through literature review and documentation. Several categories of scholarly and official sources, including books, journal articles, statutory

regulations, and policy documents, were collected to inform the analysis of spatial planning, Detailed Spatial Plan implementation, sustainable development, and SWOT methodology ([Sugiyono, 2022](#)).

The Head of the Nusantara Capital Authority Regulation Number 3 of 2023 concerning the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City serves as the primary document used in this analysis ([Otorita Ibu Kota Nusantara, 2023](#)). Supporting data were drawn from Law Number 26 of 2007 concerning Spatial Planning and Law Number 3 of 2022 concerning the State Capital, both of which establish the legal architecture within which the East 1 Detailed Spatial Plan operates ([Republik Indonesia, 2007, 2022](#)). Additional data collection was carried out through review of scholarly journal articles addressing regional development strategy and spatial planning implementation. In spatial planning research, literature review is regarded as an effective technique because it can provide a comprehensive picture of space utilization policy conditions and regional development problems ([Endasmoro & Akliyah, 2023](#)).

3.3 SWOT Analysis Technique

This study applies a quantitative SWOT analysis. SWOT analysis is used to determine the internal and external conditions affecting implementation of the East 1 Planning Area Detailed Spatial Plan. External factors consist of opportunities and threats, while internal factors consist of strengths and weaknesses. SWOT analysis is an appropriate choice because it can provide a detailed strategic picture of spatial planning policy conditions, serving not only to identify strategic factors but also to help determine regional development strategy objectives based on the area's actual situation ([Rangkuti, 2018](#)).

The stages of the SWOT analysis applied in this study comprise several sequential steps. The first step identifies the internal and external factors affecting implementation of the Detailed Spatial Plan. The second step assigns a weight to each strategic factor according to its relative level of importance. The third step assigns a score to each factor according to its actual condition. The fourth step calculates a weighted value by multiplying the weight and the score for each factor. The fifth step determines the strategic position based on the results of the SWOT matrix calculation.

In this analysis, the total weight assigned to internal factors sums to 1.00 and the total weight assigned to external factors likewise sums to 1.00, while scores are assigned on a four point scale. A score of four indicates a very strong or very large factor, a score of three indicates a strong or large factor, a score of two indicates a moderate factor, and a score of one indicates a weak or small factor. Weight indicates the relative level of importance of each strategic factor, while score describes the actual condition of that factor, such that a larger combination of weight and score indicates a greater influence of that factor on implementation of the East 1 Planning Area Detailed Spatial Plan.

This formula expresses the core computational step of the quantitative SWOT method used throughout this study. For each strategic factor identified in the internal and external factor matrices, the assigned weight, which reflects the relative importance of that factor among all factors of the same type, is multiplied by the assigned score, which reflects the factor's actual observed condition on a four point scale. As an illustration, a factor carrying a weight of 0.15 and a score of 4 produces a weighted value of 0.15 multiplied by 4, equal to 0.60. The weighted values obtained for every internal factor are then summed to produce the total IFAS score, and the weighted values obtained for every external factor are summed to produce the total EFAS score, with both totals subsequently used to locate the plan's position on the internal external strategic matrix described in the results section.

The resulting weighted values are then used in constructing the Internal Factor Analysis Summary, commonly abbreviated IFAS, and External Factor Analysis Summary, commonly abbreviated EFAS, tables used to determine the strategic position of the East 1 Planning Area Detailed Spatial Plan implementation ([David, 2017](#)). Because it considers internal and external conditions simultaneously, quantitative SWOT analysis is regarded as helpful in formulating more targeted regional development strategy. This method is frequently used in spatial planning studies to evaluate policy effectiveness and to determine which regional development strategy should be prioritized ([Dzulfadhli et al., 2021](#)).

4. Results and Discussions

4.1 Identification of Internal Factors

Internal factors arise from the implementation process of the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City. Internal factors consist of strengths and weaknesses capable of influencing the success of IKN regional development. Internal factors were identified in order to determine the actual conditions that support or hinder implementation of spatial policy in the East 1 area.

4.2 Strengths

Several factors play an important role in implementation of the East 1 Detailed Spatial Plan. Strong national regulatory support constitutes the first strength, since Law Number 3 of 2022 concerning the State Capital and Head of the Nusantara Capital Authority Regulation Number 3 of 2023 concerning the East 1 Detailed Spatial Plan together give implementation a strong legal foundation. Legal clarity provides legal security for the regulation of space utilization, area development, and investment in the IKN area ([Republik Indonesia, 2022](#)). Strong regulation also demonstrates that the government is genuinely committed to supporting development of a sustainable and well planned new capital, and legal security of this kind is important for attracting investors and ensuring consistent implementation of spatial policy.

The green city and smart city development concept constitutes the second strength. The green city and smart city concepts used in Nusantara's design emphasize sustainable, technology based development. This concept includes the use of environmentally friendly energy, modern waste management, energy efficiency, public transportation, and adequate green space ([Sutaryono, 2021](#)). Because it aligns with contemporary urban development trends in many countries, this development concept becomes a strength in its own right, and the smart city concept can improve public service quality and community quality of life in addition to improving environmental quality, a pattern documented in the South Sumatra green smart city case ([Hasmawaty et al., 2022](#)).

Integration of spatial planning and modern transportation constitutes the third strength. The East 1 Detailed Spatial Plan combines modern transportation systems with government areas, settlement areas, and economic areas. This integration aims to increase community mobility and reduce dependence on private vehicles. A low carbon development concept is also considered in the design of a transportation system consistent with sustainable development principles. Integration of spatial planning and transportation is essential for creating an organized and efficient city, a conclusion consistent with the smart and green city assessment of the wider Nusantara project ([Jati et al., 2023](#)).

Support from the central government and the Nusantara Capital Authority constitutes the fourth strength. The central government fully supports IKN development in terms of regulation, institutions, and development funding. This support demonstrates that IKN development is a national strategic program occupying a top priority in Indonesia's development agenda. Because the Nusantara Capital Authority holds special authority to manage the IKN area, its existence assists coordination of development implementation, and this institutional support accelerates implementation of the Detailed Spatial Plan and control of area development, a pattern that mirrors the regulatory certainty channel identified in the legal and economic literature on the new capital policy ([Kamal, 2022](#)).

The potential for new economic development constitutes the fifth strength. The opportunity to build a new economic growth center outside the island of Java arises thanks to IKN development. In this situation, investment can increase in the fields of infrastructure, trade, services, property, and technology. IKN development can also accelerate equitable national development and reduce economic disparity between regions. This potential can help the economic growth of East Kalimantan and reinforces the regional rebalancing rationale documented in recent geopolitical and geostrategic analyses of the relocation decision ([Endarwati et al., 2024](#); [Sriyono et al., 2024](#)).

4.3 Weaknesses

Despite possessing many strengths, implementation of the East 1 Detailed Spatial Plan also faces several weaknesses. These weaknesses must be considered to ensure that regional development proceeds smoothly. The very large development budget requirement constitutes the first weakness. The IKN area requires substantial funds to be built, particularly for basic infrastructure such as clean water networks, electricity, roads, public transportation, and government facilities. If the state budget is limited or investment declines, the financing requirement becomes a problem. In addition, because of the scale of the financing requirement, development must proceed in stages, and this will require considerable time to fully achieve development objectives.

Dependence on private investment constitutes the second weakness. IKN development still depends on private investors through government and business entity cooperation programs. This condition significantly affects the continuity of development. Acceleration of development in the IKN area can be hampered if investment declines because of global economic conditions or other factors. As a result, the government must increase investor confidence and maintain investment stability.

Basic infrastructure that is not yet fully ready constitutes the third weakness. Several important pieces of infrastructure in the IKN area remain under development even though construction continues. Because of this condition, the Detailed Spatial Plan has not yet been used optimally. In the early stage of regional development, certain infrastructure limitations can also affect development activity and public service delivery.

Limited readiness of local human resources constitutes the fourth weakness. Local human resources remain limited. Human resources proficient in contemporary urban governance technology and public service delivery are required to transform the city into a modern city. However, in order to keep pace with IKN development, the readiness of local human resources still needs to be improved. Improving the quality of human resources is essential so that local communities can participate in and benefit from sustainable development of the IKN area.

The potential for social disparity among surrounding communities constitutes the fifth weakness. Large scale investment and development inflow has the potential to create social disparity if local communities are not optimally involved in the development process. Social inequality can emerge in areas where IKN is being developed because of differences in economic capacity and access to employment opportunities ([Agustino, 2020](#)). This concern is substantiated by evidence documenting rising land use conversion pressure and its effects on rural and Indigenous livelihoods in the wider IKN Nusantara area ([Syaban & Appiah-Opoku, 2024](#)). As a result, an inclusive development policy is required to ensure that surrounding communities experience the benefits of development equitably.

Table 1. Internal Factor Analysis Summary (IFAS)

Internal Factor	Weight	Score	Weighted Value
Strong national regulatory support	0.15	4	0.60
Green city and smart city concept	0.12	4	0.48
Integration of spatial planning and transportation	0.10	3	0.30
Central government and IKN Authority support	0.13	4	0.52
Potential for new economic development	0.10	3	0.30
Subtotal Strengths	0.60	-	2.20
Large development budget requirement	0.10	2	0.20
Dependence on private investment	0.08	2	0.16
Infrastructure not fully ready	0.08	2	0.16
Limited local human resource readiness	0.07	2	0.14
Potential social disparity	0.07	1	0.07
Subtotal Weaknesses	0.40	-	0.73
Total	1.00	-	2.93

Table 1 reports the internal strategic factors identified for the East 1 Planning Area Detailed Spatial Plan, each assigned a weight reflecting its relative importance, a score reflecting its actual condition on a four point scale, and a weighted value obtained by multiplying the weight and score. The five strength factors sum to a subtotal weight of 0.60 and a weighted value of 2.20, while the five weakness factors sum to a subtotal weight of 0.40 and a weighted value of 0.73. The combined total weighted value across both categories is 2.93, indicating that the internal strategic condition of the East 1 Detailed Spatial Plan is comparatively strong, since the strength factors contribute substantially more to the total weighted score than the weakness factors do.

The total value obtained from the IFAS table is 2.93. This result indicates that the internal condition of East 1 Detailed Spatial Plan implementation is fairly strong because strength factors are more dominant than weakness factors. Spatial planning policy in the IKN area is reinforced by national regulation, the smart city development concept, and central government support (David, 2017). This finding provides direct empirical support for Proposition 1, since the internal strength subtotal of 2.20 clearly exceeds the internal weakness subtotal of 0.73. Conversely, in the regional development process, challenges still remain that need attention, such as the large development financing requirement and infrastructure readiness that is not yet fully optimal. As a result, effective development management strategy is required to ensure that development of the Nusantara Capital City proceeds successfully.

4.4 Identification of External Factors

External factors originate from outside implementation of the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City. External factors consist of opportunities and threats capable of influencing the success of IKN area development. Identification of external factors is carried out to determine the strategic environmental conditions that can support or hinder implementation of spatial policy.

4.5 Opportunities

Several factors constitute opportunities in implementation of the East 1 Detailed Spatial Plan. Increased national and international investment constitutes the first opportunity. Because it opens new business opportunities in various fields such as infrastructure, property, technology, energy, and services, IKN development becomes attractive to national and international investors. With the presence of this investment, regional development can be accelerated and regional economic growth can increase. In addition, IKN development as a national strategic project becomes more trusted by investors because there is regulatory certainty and support from the central government, a pattern that echoes the legal certainty argument developed in the law and economic perspectives literature (Kamal, 2022).

The formation of a new economic growth center outside the island of Java constitutes the second opportunity. As an effort to reduce development disparity between Java and other regions in East Kalimantan, IKN development has the potential to create a new economic growth center in the area. In addition, trade activity, services, creative industry, and other supporting sectors can increase as a result of forming this new economic center. According to Agustino (2020), this condition provides a major opportunity to expand economic distribution and increase equity in national development.

Development of smart city technology constitutes the third opportunity. Digital public service systems, smart transportation, energy management, and IT based governance are all opportunities offered by the technology based IKN development concept. Smart city technology can improve public service efficiency and support development of a more modern, efficient, and sustainable urban system (Sutaryono, 2021), consistent with the broader Indonesian evidence on green smart city capability building (Hasmawaty et al., 2022).

The opportunity for increased employment constitutes the fourth opportunity. Construction, transportation, trade, services, technology, and public services are fields in which IKN development opens many employment opportunities for the community. This condition can increase community

income and encourage economic growth in areas adjacent to the development area. Through training and job skill development, IKN development can also improve the quality of human resources. Support for international cooperation constitutes the fifth opportunity. Many countries and international institutions pay attention to IKN development, particularly in the fields of sustainable city development and environmentally friendly technology. Opportunities for investment, technology transfer, and human resource capacity development can emerge as a result of this support. In addition, international cooperation can help in applying the green development and smart city concept in the IKN area.

4.6 Threats

In addition to possessing many opportunities, implementation of the East 1 Detailed Spatial Plan faces many threats. To ensure that regional development continues in accordance with its objectives, several of these threats need attention. Environmental damage risk constitutes the first threat. If space utilization control is not carried out properly, large scale area development can cause environmental damage. Reduced forest area, environmental pollution, and disruption to ecosystems around the development area are among these risks. Sustainable development, the primary vision of IKN, can fail if environmental oversight is not carried out well ([Utami, 2021](#)). This risk is directly substantiated by land cover change evidence documenting a marked increase in built up area and a corresponding decline in agricultural and forest land within the broader IKN Nusantara area between 2003 and 2023 ([Syaban & Appiah-Opoku, 2024](#)).

Land related and social conflict constitutes the second threat. If IKN area development is carried out unfairly and non transparently, there is a possibility of land conflict with local communities. In addition, the inflow of investment and urbanization can also cause social change that can lead to economic inequality and cultural shifts among communities around the development area. Global economic uncertainty constitutes the third threat. The flow of investment and financing for IKN development can be influenced by global economic conditions. Regional development can experience funding constraints if a global economic crisis or slowdown in global investment occurs. Economic instability can affect investor willingness to build IKN.

Political and policy change constitutes the fourth threat. The sustainability of IKN development policy can be influenced by changes in political leadership. If national development priorities change, implementation of the Detailed Spatial Plan and regional development can be hampered. Sustainability of new capital development depends heavily on consistent policy. The potential for development delay constitutes the fifth threat. IKN development requires many complex processes, ranging from inter agency coordination to land acquisition. If not managed well, this complexity can cause development delays. Delay in development can affect the effectiveness of Detailed Spatial Plan implementation and overall regional development targets.

Table 2. External Factor Analysis Summary (EFAS)

External Factor	Weight	Score	Weighted Value
Increased national and international investment	0.15	4	0.60
New economic center outside Java	0.13	4	0.52
Development of smart city technology	0.10	3	0.30
Increased employment opportunity	0.12	3	0.36
Support for international cooperation	0.10	3	0.30
Subtotal Opportunities	0.60	-	2.08
Environmental damage risk	0.10	2	0.20
Land related and social conflict	0.10	2	0.20
Global economic uncertainty	0.08	2	0.16
Political and policy change	0.07	2	0.14
Potential development delay	0.05	1	0.05
Subtotal Threats	0.40	-	0.75

External Factor	Weight	Score	Weighted Value
Total	1.00	-	2.83

Table 2 reports the external strategic factors identified for the East 1 Planning Area Detailed Spatial Plan, following the same weighting and scoring procedure applied to the internal factors in Table 1. The five opportunity factors sum to a subtotal weight of 0.60 and a weighted value of 2.08, while the five threat factors sum to a subtotal weight of 0.40 and a weighted value of 0.75. The combined total weighted value is 2.83, indicating that opportunity factors are more dominant than threat factors in shaping the external strategic environment surrounding implementation of the East 1 Detailed Spatial Plan.

The total value is 2.83 based on the EFAS table results. This shows that opportunity factors are more dominant than threat factors in implementation of the East 1 Detailed Spatial Plan. Successful development of the IKN area can be supported by increased investment, formation of a new economic center, and application of the smart city concept. This finding provides direct empirical support for Proposition 2, since the external opportunity subtotal of 2.08 clearly exceeds the external threat subtotal of 0.75, mirroring the pattern already observed for the internal factors.

However, sustainable development oversight and strengthening of regional development policy governance must continue to be carried out to prevent environmental damage, social conflict, and global economic uncertainty (David, 2017). This qualification is consistent with the caution raised in the climate adaptation literature regarding the gap between ambitious sustainability commitments and actual local implementation capacity across Indonesian cities more broadly (Gaborit, 2022).

4.7 Strategic Position and Discussion

According to the results of the IFAS and EFAS calculations, the East 1 Detailed Spatial Plan is positioned in Quadrant I, the growth oriented or aggressive strategy quadrant, of the internal external strategic matrix. This condition indicates that strengths and opportunities are more dominant than weaknesses and threats. Therefore, to support development opportunities in the IKN area, an aggressive strategy is used, one that leans on the plan's substantial internal strengths to capture the substantial external opportunities documented above, rather than a defensive or retrenchment oriented approach.

This strategic position is broadly consistent with the optimistic framing found in much of the recent literature on Nusantara's development trajectory, which emphasizes the scale of investment opportunity and the strength of institutional backing behind the project (Kamal, 2022) and (Endarwati and Wicaksono, 2024), while also echoing the more cautionary strand of that same literature, which stresses those areas, particularly environmental oversight, infrastructure readiness, and community inclusion, where implementation capacity currently lags the plan's stated ambitions (Gaborit, 2022; Syaban, & Appiah-Opoku, 2024). The aggressive quadrant position identified here should therefore not be read as an indication that implementation risk is negligible, but rather that the balance of strategic factors currently favors an assertive development posture provided that the specific weaknesses and threats identified in sections 4.3 and 4.6 are actively managed rather than left unaddressed.

Four categories of strategy follow from this quadrant position, each combining internal and external factors in a distinct way. The Strengths to Opportunities strategy, which represents the principal strategy given the aggressive quadrant position, focuses on maximizing existing institutional and regulatory advantages to capture development opportunities. This approach involves utilizing regulatory certainty and central government support to attract investment, strengthening the green and smart city concept to encourage sustainable development cooperation at national and international levels, integrating spatial planning with modern transportation systems, and utilizing IKN's strategic role as a new government center to stimulate economic activities in trade, services, and technology sectors. Such strategies are consistent with research emphasizing that sustainable new city

development requires strong institutional frameworks, integrated spatial planning, and governance mechanisms capable of aligning economic growth with environmental sustainability objectives ([Sharifi, 2021](#); [Ahvenniemi, Huovila, Pinto-Seppä, & Airaksinen, 2017](#)).

The Weaknesses to Opportunities strategy is designed to maximize development potential while simultaneously reducing internal limitations. This strategy includes improving local human resource capacity through education, vocational training, and digital skill development, strengthening alternative financing mechanisms to reduce dependence on private investment, accelerating basic infrastructure provision, and ensuring equitable distribution of development benefits. Previous studies indicate that human capital development, financial readiness, and inclusive governance are essential factors in ensuring that large-scale urban transformation projects generate broad socioeconomic benefits rather than increasing regional inequality ([Pereira, Parycek, Falco, & Kleinhans, 2020](#); [Moser, 2021](#)). The Strengths to Threats strategy emphasizes the utilization of existing institutional strengths to mitigate external risks that may hinder implementation of the East 1 Detailed Spatial Plan.

This strategy includes applying strong spatial regulations to minimize environmental degradation, strengthening coordination among the central government, the Nusantara Capital Authority, and local governments to address land and social conflicts, implementing technology-based monitoring systems to improve development supervision, and maintaining policy consistency despite changes in political and economic conditions. This approach aligns with evidence that effective governance coordination and adaptive planning capacity are critical determinants of successful smart city and sustainable urban development initiatives ([Kummitha, & Crutzen, 2020](#); [Bibri, & Krogstie, 2021](#)). Finally, the Weaknesses to Threats strategy focuses on minimizing internal vulnerabilities while reducing potential external pressures. This includes strengthening development monitoring systems to prevent infrastructure delays, implementing phased development based on financial and infrastructure readiness, improving spatial governance to reduce environmental and social risks, and increasing community participation throughout the development process. Recent studies highlight that participatory planning and adaptive governance are necessary to improve the legitimacy, resilience, and long-term sustainability of large-scale urban development projects, particularly in emerging economies where institutional and social challenges remain significant ([Huang, Wu, & Yan, 2022](#); [Sengers, Wieczorek, & Raven, 2024](#)).

In implementation of the East 1 Detailed Spatial Plan, the Strengths to Opportunities strategy is the most effective because internal and external conditions show many development opportunities and are supported by the various strategic strengths possessed by the IKN area, a conclusion that follows directly from the quadrant position established by the combined IFAS and EFAS results reported in sections 4.3 and 4.6.

5. Conclusions

5.1 Conclusion

Based on the results of the Strengths, Weaknesses, Opportunities, and Threats analysis that has been carried out, it is clear that implementation of the Detailed Spatial Plan for the East 1 Planning Area of the Nusantara Capital City possesses a fairly strong strategic condition to support development of Nusantara as Indonesia's new center of government. Its principal advantages stem from strong national regulatory support, the green city and smart city development concept, integration of modern spatial planning, and support from the central government and the Nusantara Capital Authority. In addition, the IKN area has substantial opportunities for greater investment, formation of a new economic growth center, and application of advanced technology in urban governance. Nevertheless, the East 1 Detailed Spatial Plan still faces several challenges, including large development costs, infrastructure readiness that is not yet fully ideal, environmental damage risk, and the possibility of social and land related conflict. Directed and sustainable development management is therefore required to ensure that the entire spatial planning implementation process proceeds in accordance with national development objectives. The results of the IFAS and EFAS analysis show that the strategic position of East 1 Detailed Spatial Plan implementation lies in the aggressive quadrant, indicating that strengths and opportunities are more important than weaknesses and threats, and that the most

effective approach is to use all available strengths to maximize development opportunities in the area, an approach that includes increasing investment, accelerating infrastructure development, improving the quality of human resources, and strengthening environmental oversight and development governance. Overall, the East 1 Planning Area Detailed Spatial Plan has substantial potential to help build a modern, sustainable, and globally competitive new capital if it is implemented consistently and in an integrated manner.

5.2 Research Limitations

This study is subject to several limitations that should be considered when interpreting its findings. The analysis relies entirely on secondary documentary data drawn from regulations, policy documents, and published literature rather than on primary field data collected directly from residents, investors, or implementing agencies in the East 1 area, which limits the extent to which the weights and scores assigned to each strategic factor can be validated against the perceptions of the parties most directly affected by implementation. The quantitative SWOT method itself depends on expert style judgment in assigning weights and scores to each strategic factor, and different analysts working from the same underlying evidence base could reasonably assign somewhat different values, introducing an element of subjectivity that a purely quantitative presentation of the results can understate. The study further examines a single planning area within the much larger Nusantara Capital City project at a single point in time, so the findings cannot speak to how the strategic position identified here might shift as construction proceeds through its later phases or as national political priorities evolve.

5.3 Directions and Future Study

Future research is encouraged to extend the present analysis in several directions. Subsequent studies could incorporate primary survey or interview data collected from local residents, investors, and implementing officials in the East 1 area to validate and refine the weights and scores used in the SWOT matrices presented here. Future research could also apply the same quantitative SWOT framework to other planning areas within the wider Nusantara Capital City project, allowing a comparative assessment of which areas face the most favorable and the most challenging strategic conditions and thereby supporting more targeted sequencing of development investment across the city as a whole. Longitudinal research that repeats this SWOT analysis at successive stages of IKN construction would further allow researchers and policy makers to track whether the aggressive quadrant position identified in this study is maintained, strengthened, or eroded as the project moves from its early infrastructure phase toward full operational status. Finally, future studies could usefully integrate the quantitative SWOT approach used here with spatial and environmental monitoring data, such as land cover change analysis, to ground the assessment of environmental threats in direct physical measurement rather than in documentary review alone.

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