

THE ROLE OF COLLABORATIVE GOVERNANCE IN SUBANG'S SMART CITY DEVELOPMENT

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ABSTRACT

The rapid advancement of digital transformation in the public sector has encouraged local governments in Indonesia to adopt more collaborative, adaptive, and technology-driven governance models. Subang Regency, which is experiencing significant regional transformation due to the development of Patimban Seaport and its integration into the Rebana Metropolitan area, faces increasing pressure to modernize public service delivery through smart city initiatives. This study aims to analyze the role of collaborative governance in advancing smart city development in Subang Regency. This research employs a qualitative approach with a case study design. Data were collected through in-depth interviews, observations, and document analysis involving key stakeholders, including government agencies, private sector actors, academics, and community groups. The data were analyzed using collaborative governance theory, focusing on initial conditions, institutional design, facilitative leadership, and collaborative processes. The findings indicate that smart city development in Subang Regency remains at a transitional stage and has not yet achieved effective cross-sector integration. Several challenges hinder implementation, including sectoral ego among government agencies, uneven digital competencies among civil servants, limited data interoperability, and insufficient involvement of non-government actors. These constraints weaken shared motivation and reduce the capacity for joint action among stakeholders. The analysis further reveals that collaborative governance elements have not been optimally developed, resulting in fragmented coordination and limited synergy across sectors. Despite these challenges, the study identifies opportunities to strengthen collaborative governance through the establishment of more inclusive institutional platforms, leadership development, improvement of digital literacy, and strategic partnerships with private and academic stakeholders for governance.

Keyword: Collaborative governance, smart city development, digital transformation, local government, Subang Regency

ABSTRAK

Perkembangan pesat transformasi digital di sektor publik telah mendorong pemerintah daerah di Indonesia untuk mengadopsi model tata kelola yang lebih kolaboratif, adaptif, dan berbasis teknologi. Kabupaten Subang, yang tengah mengalami transformasi wilayah secara signifikan akibat pengembangan Pelabuhan Patimban serta integrasinya dalam kawasan Metropolitan Rebana, menghadapi tuntutan untuk memodernisasi sistem pelayanan publik melalui inisiatif smart city. Penelitian ini bertujuan untuk mengkaji peran collaborative governance dalam mendorong pengembangan smart city di Kabupaten Subang. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus. Data dikumpulkan melalui wawancara mendalam, observasi lapangan, dan analisis dokumen yang melibatkan perangkat daerah, sektor swasta, akademisi, dan kelompok masyarakat. Analisis data dilakukan dengan menggunakan kerangka teori collaborative governance yang menekankan kondisi awal, desain

institusional, kepemimpinan fasilitatif, dan proses kolaboratif antaraktor. Hasil penelitian menunjukkan pengembangan smart city di Kabupaten Subang masih berada pada tahap transisi dan belum mencapai tingkat integrasi lintas sektor yang memadai untuk mendukung implementasi yang efektif dan berkelanjutan. Berbagai kendala utama teridentifikasi, antara lain ego sektoral antarinstansi pemerintah, kapasitas digital aparatur yang belum merata, keterbatasan interoperabilitas data, serta minimnya keterlibatan aktor non-pemerintah dalam proses perencanaan dan pelaksanaan. Kondisi tersebut berdampak pada lemahnya motivasi bersama serta rendahnya kapasitas para pemangku kepentingan untuk bertindak secara kolektif. Penelitian ini menemukan adanya peluang untuk memperkuat collaborative governance melalui penguatan platform kelembagaan, pengembangan kepemimpinan fasilitatif, peningkatan literasi digital aparatur, serta pengembangan kemitraan strategis dengan sektor swasta dan akademisi. Penelitian ini diharapkan dapat memberikan kontribusi teoretis dan rekomendasi praktis bagi penguatan implementasi smart city di Kabupaten Subang.

Kata kunci: Collaborative Governance, Smart City, Transformasi Digital, Pemerintahan Daerah, Kabupaten Subang

INTRODUCTION

The development of digital transformation in the public sector has encouraged local governments in Indonesia to adopt governance systems that are more open, adaptive, and technology-based. The central government has issued several regulations reinforcing the importance of digital transformation in public service delivery, including Presidential Regulation No. 95 of 2018 on Electronic-Based Government Systems (SPBE), Presidential Regulation No. 39 of 2019 on One Data Indonesia, and the national program Gerakan Menuju 100 Smart City initiated by the Ministry of Communication and Informatics. These regulations emphasize that local governments must strengthen data integration, build standardized service architectures, and promote cross-sector collaboration to improve the quality of public services. Within this framework, the smart city concept is understood not merely as the application of information technology but as a development strategy that integrates six key pillars: smart governance, smart economy, smart environment, smart living, smart mobility, and smart people. An ideal smart city requires local governments to develop data-driven policies, deliver efficient and measurable public services, establish integrated information systems across agencies, and ensure community participation in planning and monitoring development programs. Thus, the success of a smart city depends not only on technological infrastructure but also on organizational capacity, cross-actor coordination, bureaucratic cultural change, and a supportive collaborative ecosystem.

Subang Regency is one of the regions with a high level of urgency in developing a smart city. Subang is currently experiencing significant transformation driven by the development of Patimban Seaport and its integration into the Rebana Metropolitan Area, which has accelerated industrialization and urbanization. This situation creates a strong need for more modern, responsive, and technology-based governance to address increasing population mobility, the growing complexity of public services, and the dynamics of regional economic development. The Subang local government has begun to develop several digital initiatives, such as information systems for population administration services, regional planning platforms, public service applications, and strengthened network infrastructure. However, the implementation of smart city initiatives in Subang remains in a developing stage and has not yet achieved the necessary level of cross-sector integration.

Several issues emerge in relation to smart city development in Subang. Internally, bureaucratic challenges such as sectoral ego among government agencies, limited data integration, and low system interoperability hinder the effectiveness of SPBE and smart city implementation. The digital competency of civil servants also varies significantly, leading to unequal capabilities among agencies in managing digital transformation.

The involvement of non-government actors including industry players, technology providers, academics, and local communities remains suboptimal, even though their participation is crucial for building a regional innovation ecosystem. These conditions illustrate a gap between the need for digital transformation and the government's organizational capacity to manage it comprehensively. Collaborative governance becomes a highly relevant approach to examine. Smart city development inherently involves multiple actors with diverse interests, capacities, and resources. Local governments cannot work alone to build an effective digital system but require cooperation with the private sector, academia, civil society, digital communities, and industry stakeholders. Collaborative governance emphasizes the importance of equal participation, deliberative processes, and continuous coordination among stakeholders to achieve complex public goals. Therefore, understanding the role of collaborative governance in smart city development is crucial for Subang, which is currently undergoing rapid transformation.

This study aims to analyze the role of collaborative governance in the development of the smart city in Subang Regency, including the actors involved, the mechanisms of collaboration, the challenges encountered, and opportunities to strengthen digital governance. This research is expected to contribute theoretically to public administration studies, particularly regarding collaboration and organizational design in the digital era, and to provide practical recommendations for the Subang local government in accelerating the implementation of an inclusive, integrated, and sustainable smart city.

RESEARCH METHOD

This study employs a qualitative approach with an instrumental case study design (Stake, 1995) to gain an in-depth understanding of how collaborative governance plays a role in the development of the smart city in Subang Regency. The qualitative method is considered relevant because smart city implementation involves complex interactions among multiple actors and is influenced by social dynamics, institutional capacity, and governance structures. This approach enables the researcher to explore stakeholder experiences, perceptions, and interaction patterns to provide a deeper understanding of collaborative processes in local digital governance.

Informants were selected using purposive sampling with the following criteria: (1) having direct involvement in smart city programs or SPBE implementation, (2) possessing institutional authority in digital public services, and/or (3) actively participating as non-government stakeholders in regional digital innovation. The selected informants consisted of officials from local government agencies, such as the Department of Communication and Informatics (Diskominfo), the Regional Development Planning Agency (Bappeda), and the Department of Population and Civil Registration (Disdukcapil), as well as representatives from private sector partners, academic experts in digital governance, and members of digital community groups. Prior to interviews, all informants were provided with an informed consent form explaining the purpose of the study, voluntary participation, confidentiality, and consent for anonymized quotations in publication to ensure compliance with ethical research principles.

Data were collected using semi-structured interviews to allow flexible probing according to the flow of conversation, supported by observations of digital public service activities and coordination meetings, and document analysis involving the smart city master plan, SPBE documents, regulations, and official reports related to digital transformation in Subang Regency. The researcher served as the main research instrument responsible for data acquisition, interpretation, and validation.



The collected data were analyzed using the interactive model of Miles, Huberman & Saldaña (2014), which includes data reduction, data display, and conclusion drawing. The interview recordings were transcribed verbatim and then coded through three stages: open coding to identify initial categories, axial coding to establish relationships among themes, and selective coding to formulate the core findings. This analysis procedure allowed the researcher to continuously refine emerging interpretations throughout the data collection process.

The credibility was strengthened through source and method triangulation, comparing data obtained from interviews, observations, and documents. Limited member checking was conducted by confirming key findings to selected informants, and an audit trail was maintained to support dependability and confirmability. The research was conducted in Subang Regency over several months, adjusted to stakeholder availability and the timeline of smart city-related activities.

RESULTS

The findings of this study indicate that smart city development in Subang Regency has involved various actors across multiple sectors; however, the level of collaboration established is still at a developing stage and has not yet reached a mature collaborative phase as described in the collaborative governance model. These findings can be explained through four main aspects adapted from Ansell and Gash's theoretical framework: starting conditions, institutional design, facilitative leadership, and the collaborative process. These aspects are interconnected and collectively influence the effectiveness of collaboration in the implementation of the smart city.

Regarding the starting conditions, the study reveals that each local government agency (OPD) in Subang has different levels of digital understanding and readiness. Several OPDs develop their own digital applications independently without strong coordination with the Department of Communication and Informatics, resulting in system fragmentation. Differences in digital human resource capacity, limited infrastructure, and sectoral ego due to overlapping authorities become major barriers that weaken trust among actors. This aligns with the statement from a Diskominfo staff member who emphasized that digital implementation has not yet been carried out in an integrated manner: *"Ada yang jalannya sudah jauh, ada yang masih belajar. Kita belum bisa menyamakan langkah karena kesiapan tiap OPD berbeda."* The unequal digital capabilities of civil servants in managing applications and data further widen system fragmentation. This condition is worsened by the tendency of OPDs to work independently without strong technical coordination. As expressed by another informant from a public service agency: *"Aplikasi kami sudah ada, tapi belum tersambung dengan dinas lain. Masih fokus beresin urusan internal dulu."*

These findings demonstrate that disparities in digital capacity, infrastructure constraints, and sectoral ego serve as primary obstacles in building cross-actor trust and equal positioning. Therefore, collaboration remains coordinative rather than fully collaborative, which should ideally involve resource integration, shared vision, and willingness to exchange information. Such conditions reflect the theoretical view that disparities in capacity and historical relationships among actors significantly influence early stages of collaboration. In the Subang context, these disparities lead to collaboration that is more administrative and less transformative.

The second aspect concerns institutional design. Although the Subang Regency Government has developed supporting regulations such as the SPBE documents and smart city master plan, their implementation has not yet become a unified reference across OPDs. Coordination forums tend to be formalistic and incidental, rather than structured deliberative spaces as suggested in the collaborative governance model. As stated by a Bappeda official: *"Kalau rapat, fokusnya biasanya pada progres program, belum sampai membahas solusi lintas sektor."*



This indicates that deliberative spaces to build mutual understanding and innovation among actors have not yet been systematically developed. Furthermore, there is no permanent collaborative platform that brings together the private sector, academics, and digital communities in planning and evaluation processes. External involvement remains project-oriented and does not significantly shape long-term governance design. Academics are mostly engaged in technical training or workshops instead of contributing to research-based policy development. This situation shows that Subang's institutional design has not yet sufficiently supported inclusive and equal principled engagement, which is a key characteristic of collaborative governance. As a result, digital initiatives develop at different rhythms across OPDs, limiting the effectiveness of public service integration.

The third aspect refers to facilitative leadership. The findings show that smart city initiatives are still highly dependent on certain individuals within Diskominfo and Bappeda who possess better awareness of the urgency of digital transformation. However, limited authority restricts their ability to unify priorities across agencies. One Diskominfo informant stated: *"Kami sudah coba dorong integrasi, tetapi kalau pimpinan OPD-nya belum melihat ini sebagai prioritas, sulit untuk bergerak bersama."* Leadership within OPDs remains focused on administrative compliance rather than organizational transformation, trust-building, and mediation of sectoral interests. The absence of leaders acting as facilitators of collaborative interaction results in low dialogic engagement and slow alignment of strategies and shared goals. These findings reinforce the argument that Subang requires more transformative and inclusive leadership capable of shifting bureaucratic behavior toward continuous collaborative governance.

The fourth aspect is the collaborative process, which includes face-to-face dialogue, trust formation, commitment, and the development of shared understanding. Field observations indicate that coordination remains administrative and report-based rather than functioning as a learning space to negotiate cross-sector digital strategies. As an ASN within a public service agency stated: *"Setiap rapat hanya update progres. Jarang ada diskusi soal kenapa belum terhubung atau apa solusi bersama yang bisa dilakukan."* This condition hinders the emergence of collective ownership of smart city initiatives. Although digital applications have been developed, the lack of intensive collaborative dialogue results in innovations that stand alone rather than operating as an integrated system. A representative from a private technology partner further explained: *"Kadang kami ingin ikut kasih masukan, tapi format rapatnya tidak memberi ruang untuk itu. Jadi kami hanya dengar saja."* This situation shows that external actor involvement is often ad-hoc, preventing optimized contributions to innovation ecosystem development.

Overall, the fragmented collaborative process reflects that Subang's digital ecosystem is still evolving. Effective collaboration should be built through structured, continuous, and reciprocal communication; yet in Subang, such conditions have not been prioritized. As a result, joint action toward shared digital transformation goals cannot yet be fully realized. Based on the findings, the major challenge in Subang's smart city development lies in the weak shared motivation among actors. Limited use of data in decision-making, lack of system interoperability, and absence of long-term strategic partnerships indicate constrained collaborative capacity.

The significant opportunities for improvement, such as the presence of digitally adaptive young civil servants, strong interest from private and academic partners, and active digital communities. By optimizing these opportunities—through enhanced coordination mechanisms, strengthened data integration, and institutionalized collaborative leadership, Subang has the potential to transition toward an integrated, inclusive, and sustainable smart city.

CONCLUSION

The development of the smart city in Subang Regency is still at a transitional stage, where initiatives have been carried out by multiple actors but remain fragmented and lack strong collaborative mechanisms. The findings show that digital transformation efforts have not yet resulted in an integrated ecosystem due to disparities in digital capacity among local government agencies, limited institutional arrangements for cross-sector involvement, and the absence of facilitative leadership capable of unifying priorities and mediating sectoral interests. Collaborative interactions continue to focus on administrative coordination rather than collective problem-solving, which hinders shared understanding and trust-building among actors.

Despite these challenges, the research identifies substantial opportunities to accelerate smart city governance in Subang. The presence of motivated young civil servants, increasing interest from private sector and academic partners, and the growing role of digital communities can serve as enablers to strengthen collaborative capacity. To optimize these opportunities, local governments must enhance structured multi-actor platforms, improve data interoperability, expand digital literacy programs, and institutionalize partnership models that promote co-creation and joint decision-making. Strengthening collaborative governance is therefore essential for Subang to transition from fragmented digital initiatives toward a more integrated, inclusive, and sustainable smart city implementation.

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