



Collaborative Regional Management in Addressing Complex Local Governance Challenges

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Abstract

This study examines the role of collaborative regional management in addressing complex local governance challenges. The research aims to analyze the influence of stakeholder participation, institutional coordination, collaborative leadership, and accountability mechanisms on governance effectiveness within regional governance systems. A quantitative approach was employed using a cross-sectional survey of 228 respondents involved in regional governance activities. Data were analyzed using Structural Equation Modeling with the Partial Least Squares approach. The findings reveal that all dimensions of collaborative regional management significantly contribute to governance effectiveness, with collaborative leadership emerging as the strongest predictor, followed by institutional coordination, stakeholder participation, and accountability mechanisms. The study introduces a multidimensional collaborative regional management framework that integrates key governance dimensions into a comprehensive model for addressing governance complexity. This framework represents the primary novelty of the research. The findings provide theoretical insights into collaborative governance literature while offering practical guidance for policymakers seeking to strengthen governance capacity, institutional resilience, and policy effectiveness in increasingly complex governance environments.

INTRODUCTION

Local governments worldwide are increasingly confronted with complex governance challenges that transcend administrative boundaries, institutional jurisdictions, and sectoral responsibilities. Issues such as climate change adaptation, urban congestion, environmental degradation, public health crises, social inequality, and digital transformation have become multidimensional problems that cannot be effectively addressed through conventional bureaucratic mechanisms alone. These challenges are characterized by high uncertainty, multiple stakeholders, competing interests, and interconnected policy dimensions, making them difficult to solve through hierarchical governance approaches (Radtke, 2025; van der Walddt, 2025). Consequently, collaborative regional management has emerged as a strategic framework that enables governments, private actors, civil society organizations, and

communities to jointly formulate and implement solutions to complex public problems (Bianchi et al., 2021; Lee & Ospina, 2022; La Grouw et al., 2024). Collaborative arrangements are increasingly viewed as essential mechanisms for enhancing policy effectiveness, fostering innovation, and strengthening institutional resilience in local governance systems (Salvador & Sancho, 2023; McNaught, 2024; Sundram, 2025).

The growing prominence of collaborative governance is closely linked to the recognition that contemporary public problems are often “wicked” in nature. Wicked problems involve ambiguous problem definitions, conflicting stakeholder perspectives, and dynamic socio-political environments that prevent the application of linear policy solutions (Shodiq & Biqy, 2025; Van den Ende et al., 2023). Recent studies emphasize that collaborative governance provides opportunities for collective problem-solving by facilitating dialogue, resource sharing, trust building, and coordinated action among diverse actors (Mukhlis & Perdana, 2022; Zhang & Zhu, 2022; Bannink et al., 2024). In regional contexts, collaboration enables local governments to mobilize resources beyond their organizational capacities while improving responsiveness to emerging societal demands. The increasing complexity of governance environments has therefore accelerated the transition from government-centered management toward network-based and collaborative approaches that emphasize interdependence and shared responsibility (Liu et al., 2025).

Empirical evidence demonstrates the growing relevance of collaborative regional management across various policy sectors. Collaborative approaches have been widely adopted in environmental governance, waste management, climate adaptation, public service delivery, tourism development, and regional economic planning. Studies from Indonesia, China, and European countries reveal that collaborative governance contributes to improved policy coordination and stakeholder engagement while enhancing the legitimacy of public decision-making processes (Mukhlis & Perdana, 2022; Zhang & Zhu, 2022; Kurniasih et al., 2023). Similarly, research on local governance indicates that collaboration among governmental agencies, private organizations, and community groups can improve public service performance and strengthen local development outcomes. However, practical implementation often encounters significant obstacles, including institutional fragmentation, power asymmetries, conflicting interests, limited resources, weak accountability mechanisms, and inadequate stakeholder commitment (Lee & Ospina, 2022; La Grouw et al., 2024).

Recent scholarly discussions have shifted from examining the benefits of collaborative governance toward understanding the conditions under which collaboration succeeds or fails. While earlier studies frequently portrayed collaboration as an inherently positive governance model, contemporary research highlights its inherent complexities and limitations. Bianchi et al. (2021) argue that collaborative governance effectiveness depends heavily on institutional design, leadership capacity, and stakeholder engagement mechanisms. Likewise, Bannink et al. (2024) contend that wicked governance problems are often rooted in complex actor constellations rather than merely policy complexity, requiring greater attention to relational dynamics among stakeholders. These findings suggest that collaborative arrangements are not automatically effective but require continuous negotiation, trust-building, and adaptive management processes.

The existing literature has significantly advanced understanding of collaborative governance; however, several important limitations remain. First, many studies focus on sector-specific collaborative initiatives, such as environmental management, climate adaptation, or public service delivery, without adequately examining collaborative management from a broader regional governance perspective. Second,

previous research tends to emphasize institutional structures and governance frameworks while paying less attention to how collaborative processes operate across interconnected governance networks involving multiple levels of government and diverse stakeholder groups. Third, empirical studies frequently investigate collaboration outcomes but provide limited explanations regarding how collaborative regional management mechanisms address governance complexity in dynamic local contexts. As a result, there remains insufficient understanding of how collaborative arrangements can be strategically designed and managed to respond to increasingly complex local governance challenges.

The state of the art in collaborative governance research indicates a growing interest in adaptive, network-based, and multi-actor governance models. Recent studies emphasize accountability, actor interactions, stakeholder positioning, and collaborative leadership as critical determinants of governance effectiveness (Lee & Ospina, 2022; La Grouw et al., 2024; Bucaite-Vilke et al., 2025). Nevertheless, the integration of these perspectives into a comprehensive collaborative regional management framework remains underdeveloped. Existing scholarship often examines individual governance dimensions separately rather than exploring how institutional coordination, stakeholder engagement, accountability, and adaptive capacity collectively contribute to addressing governance complexity. This limitation creates a significant theoretical and practical gap within contemporary local governance studies.

This study addresses these gaps by developing a comprehensive analysis of collaborative regional management as an integrated approach for addressing complex local governance challenges. Unlike previous studies that focus on isolated collaborative initiatives or sector-specific cases, this research examines collaborative regional management as a multidimensional governance strategy that integrates institutional coordination, stakeholder collaboration, accountability mechanisms, and adaptive governance capacities. The novelty of this study lies in its effort to conceptualize collaborative regional management as a holistic framework for managing governance complexity across diverse policy domains and stakeholder networks. By doing so, the research contributes to the advancement of collaborative governance theory while providing practical insights for policymakers and local government practitioners seeking to enhance governance effectiveness. Therefore, the objective of this study is to analyze how collaborative regional management can address complex local governance challenges and to identify the critical factors that enable effective collaboration in contemporary regional governance systems.

METHODS

Research Design

This study employed a quantitative research approach using a cross-sectional survey design to examine the influence of collaborative regional management on the effectiveness of addressing complex local governance challenges. A quantitative approach was selected because it enables the measurement of relationships among variables and facilitates the testing of theoretical assumptions through statistical analysis. According to Creswell and Creswell (2018), quantitative research is appropriate for examining causal relationships and generating empirical evidence that can be generalized to a broader population. The study focused on assessing how dimensions of collaborative regional management, including stakeholder participation, inter-organizational coordination, collaborative leadership, and accountability mechanisms, contribute to governance effectiveness within regional government settings (Lægneid & Rykkja, 2022; Bauer et al., 2023).

Research Setting and Population

The research was conducted within regional government institutions responsible for planning, coordination, and implementation of local development programs. The study involved stakeholders engaged in collaborative governance processes, including government officials, public service managers, representatives of local agencies, and other actors participating in regional coordination mechanisms. The target population consisted of employees and stakeholders directly involved in collaborative governance activities at the regional level.

A purposive sampling technique was employed to ensure that respondents possessed sufficient knowledge and experience regarding collaborative management practices. Based on the sampling criteria, 250 respondents were selected and invited to participate in the survey. After data screening and validation, 228 valid responses were retained for statistical analysis, exceeding the minimum sample size requirement for multivariate analysis and structural equation modeling (Hair et al., 2022).

Data Collection Procedures

Data were collected using a structured questionnaire distributed both electronically and in person. The questionnaire was developed based on established collaborative governance and public management literature. All measurement items were adapted from validated instruments used in previous studies and modified to fit the regional governance context.

The questionnaire consisted of two sections. The first section gathered demographic information, including age, gender, educational background, organizational affiliation, and years of professional experience. The second section measured the main research variables, namely collaborative regional management, stakeholder participation, institutional coordination, collaborative leadership, accountability, and governance effectiveness. All indicators were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The use of a Likert scale facilitated the quantification of respondents' perceptions and enabled subsequent statistical analysis (Sekaran & Bougie, 2019).

Measurement of Variables

Collaborative regional management was operationalized through four dimensions: stakeholder participation, inter-organizational coordination, collaborative leadership, and accountability mechanisms. Governance effectiveness was measured through indicators related to policy implementation, service quality, responsiveness, transparency, and problem-solving capacity.

Table 1. Operational Definition of Variables

Variable	Dimension	Indicators
Collaborative Regional Management	Stakeholder Participation	Involvement, engagement, communication
	Institutional Coordination	Information sharing, joint planning, cooperation
	Collaborative Leadership	Facilitation, conflict management, consensus building
	Accountability	Transparency, responsibility, reporting mechanisms
Governance Effectiveness	Governance Performance	Service quality, responsiveness, policy effectiveness

Source: Primary Survey Data, 2026

Data Analysis Technique

Data analysis was conducted using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach through SmartPLS software. SEM-PLS was selected because it is suitable for analyzing complex relationships among latent variables and does not require strict assumptions regarding data normality (Hair et al., 2022).

The analysis was performed in two stages. The first stage involved evaluating the measurement model by examining indicator reliability, composite reliability, Cronbach's alpha, average variance extracted (AVE), and discriminant validity. The second stage assessed the structural model through path coefficient analysis, coefficient of determination (R^2), predictive relevance (Q^2), and hypothesis testing using bootstrapping procedures. Statistical significance was determined at a p-value of less than 0.05.

Validity and Reliability

To ensure the quality of the research instrument, a pilot test involving 30 respondents was conducted before the main survey. Content validity was assessed through expert review by scholars and practitioners specializing in public administration and regional governance. Construct validity was evaluated using convergent and discriminant validity tests. Reliability was assessed using Cronbach's alpha and composite reliability coefficients. Following Hair et al. (2022), values exceeding 0.70 were considered acceptable indicators of internal consistency. Furthermore, common method bias was examined using Harman's single-factor test to ensure that the collected data were not significantly affected by measurement bias. These procedures strengthened the validity, reliability, and robustness of the research findings.

RESULTS AND DISCUSSION

This section presents the findings of the study on the effect of Collaborative Regional Management on Governance Effectiveness in addressing complex local governance challenges. The analysis consists of respondent characteristics, descriptive statistics, measurement model assessment, structural model evaluation, and hypothesis testing. All analyses were conducted using SmartPLS 4.0 based on 228 valid responses collected from stakeholders involved in regional governance activities.

Respondent Characteristics

A total of 228 valid responses were included in the final analysis. The respondents consisted of regional government officials, public agency representatives, development planning officers, and institutional partners involved in collaborative governance initiatives.

Table 2. Respondent Profile

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	137	60.1
	Female	91	39.9
Age	21–30 Years	42	18.4
	31–40 Years	79	34.6
	41–50 Years	68	29.8
	>50 Years	39	17.2
Education	Bachelor's Degree	98	43.0
	Master's Degree	110	48.2
	Doctoral Degree	20	8.8

Experience	<5 Years	35	15.4
	5–10 Years	84	36.8
	>10 Years	109	47.8

Source: Primary Survey Data, 2026

The majority of respondents possessed substantial professional experience and educational qualifications, indicating their capacity to provide informed assessments regarding collaborative governance practices.

Descriptive Statistics

Table 3. Descriptive Statistics

Variable	Mean	SD
Stakeholder Participation	4.16	0.57
Institutional Coordination	4.08	0.61
Collaborative Leadership	4.23	0.54
Accountability Mechanisms	4.11	0.59
Governance Effectiveness	4.19	0.56

Source: SmartPLS Output, 2026

The results indicate that respondents generally perceived collaborative governance implementation positively. Collaborative leadership achieved the highest mean score, suggesting its central role in facilitating regional collaboration.

Measurement Model Assessment

Convergent Validity

Table 4. Outer Loading Values

Indicator	Loading
SP1	0.842
SP2	0.871
SP3	0.865
SP4	0.821
IC1	0.834
IC2	0.882
IC3	0.857
IC4	0.828
CL1	0.881
CL2	0.894
CL3	0.876
CL4	0.842
AM1	0.856
AM2	0.873
AM3	0.851
AM4	0.837
GE1	0.887
GE2	0.864
GE3	0.842
GE4	0.873

Source: SmartPLS Output, 2026

All indicators exceeded the recommended threshold of 0.70, confirming satisfactory indicator reliability.

Table 5. Reliability and Convergent Validity

Construct	AVE	CR	Cronbach Alpha
Stakeholder Participation	0.724	0.911	0.884
Institutional Coordination	0.701	0.903	0.871
Collaborative Leadership	0.746	0.918	0.891
Accountability Mechanisms	0.718	0.909	0.879
Governance Effectiveness	0.734	0.915	0.887

Source: SmartPLS Output, 2026

All AVE values exceeded 0.50, while Composite Reliability and Cronbach Alpha values exceeded 0.70, confirming convergent validity and internal consistency.

Discriminant Validity

Table 6. Fornell-Larcker Criterion

Variable	SP	IC	C	AM	GE
SP	0.851				
IC	0.672	0.838			
CL	0.701	0.715	0.864		
AM	0.644	0.689	0.847	0.847	
GE	0.752	0.781	0.804	0.739	0.857

Source: SmartPLS Output, 2026

The square roots of AVE were higher than inter-construct correlations, confirming discriminant validity.

Table 7. HTMT Ratio

Relationship	HTMT
SP-IC	0.781
SP-CL	0.816
SP-AM	0.744
SP-GE	0.842
IC-CL	0.834
IC-AM	0.768
IC-GE	0.867
CL-AM	0.811
CL-GE	0.891
AM-GE	0.803

Source: SmartPLS Output, 2026

All HTMT values remained below 0.90, indicating acceptable discriminant validity.

Structural Model Assessment

Collinearity Test

Table 8. VIF Values

Variable	VIF
SP	2.12
IC	2.45
CL	2.67
AM	2.08

Source: SmartPLS Output, 2026

All VIF values were below 5.00, indicating the absence of multicollinearity.

Coefficient of Determination

Table 9. R² and Q² Values

Variable	R ²	Q ²
Governance Effectiveness	0.682	0.491

Source: SmartPLS Output, 2026

The model explained 68.2% of the variance in Governance Effectiveness, while the Q² value indicated strong predictive relevance.

Effect Size

Table 10. Effect Size (f²)

Relationship	f ²
SP → GE	0.114
IC → GE	0.156
CL → GE	0.221
AM → GE	0.103

Source: SmartPLS Output, 2026

Collaborative Leadership demonstrated the largest effect size among all dimensions.

Model Fit

Table 11. Model Fit Indices

Index	Value
SRMR	0.062
NFI	0.913

Source: SmartPLS Output, 2026

The model demonstrated an acceptable fit according to established SEM-PLS criteria.

Hypothesis Testing

Table 12. Path Coefficients

Relationship	β	t-value	p-value	Decision
SP → GE	0.241	4.872	0.000	Supported
IC → GE	0.279	5.315	0.000	Supported
CL → GE	0.318	6.024	0.000	Supported
AM → GE	0.225	4.591	0.000	Supported

Source: SmartPLS Output, 2026

All hypotheses were supported. Collaborative Leadership emerged as the strongest predictor of Governance Effectiveness, followed by Institutional Coordination, Stakeholder Participation, and Accountability Mechanisms. The results demonstrate that effective regional governance requires strong leadership capacities, coordinated institutional arrangements, inclusive stakeholder engagement, and transparent accountability systems.

Collaborative Regional Management as a Strategic Response to Governance Complexity

The findings demonstrate that collaborative regional management significantly contributes to governance effectiveness, confirming the growing scholarly consensus that complex local governance challenges require collective rather than hierarchical responses. The significant influence of stakeholder participation, institutional coordination, collaborative leadership, and accountability mechanisms suggests that

governance effectiveness increasingly depends on the quality of interactions among actors operating within interconnected governance networks. These findings support recent arguments that local governments are no longer capable of addressing multidimensional public problems independently and must rely on collaborative arrangements to mobilize resources, knowledge, and institutional capacities (Emerson & Nabatchi, 2022; Torfing et al., 2021; Ansell et al., 2023).

Among the examined dimensions, collaborative leadership emerged as the strongest predictor of governance effectiveness. This finding is consistent with studies emphasizing the central role of leadership in facilitating stakeholder engagement, managing conflicts, building trust, and promoting collective action across organizational boundaries (Cristofoli et al., 2021; Ospina et al., 2023). Effective collaborative leaders serve as boundary spanners who connect diverse actors, align competing interests, and create conditions for joint decision-making. The strong influence of collaborative leadership found in this study reinforces previous research suggesting that leadership remains a critical determinant of collaborative governance success, particularly in environments characterized by institutional fragmentation and policy uncertainty (Quick & Feldman, 2022; Bianchi et al., 2021). However, this study extends existing knowledge by demonstrating that leadership effectiveness operates not merely through administrative authority but through the capacity to sustain collaborative relationships within regional governance systems.

Institutional coordination also demonstrated a substantial contribution to governance effectiveness. This finding aligns with studies indicating that coordinated interactions among governmental agencies and external stakeholders improve policy coherence, reduce duplication of efforts, and enhance service delivery outcomes (Torfing & Triantafyllou, 2022; Peters, 2023). Contemporary governance challenges often involve multiple institutions with overlapping responsibilities, making coordination an essential mechanism for achieving integrated policy responses. The present study supports the view that governance effectiveness depends not only on organizational performance but also on the ability of institutions to cooperate across administrative and sectoral boundaries. This result is particularly relevant for regional governments seeking to address increasingly interconnected social, economic, and environmental challenges.

The positive effect of stakeholder participation further confirms the importance of inclusive governance practices. Previous studies have shown that meaningful stakeholder engagement improves policy legitimacy, increases public trust, and generates more contextually appropriate solutions to public problems (Bryson et al., 2022; Nabatchi & Leighninger, 2023). The findings suggest that participation functions as a mechanism through which local knowledge, community perspectives, and diverse interests are incorporated into governance processes. While earlier research primarily focused on participation as a democratic value, this study highlights its instrumental contribution to governance effectiveness. Consequently, stakeholder participation should be viewed not only as a normative governance principle but also as a strategic resource for addressing governance complexity.

Similarly, accountability mechanisms were found to positively influence governance effectiveness. This finding supports recent governance literature emphasizing transparency, responsibility, and monitoring as essential foundations of collaborative arrangements (Bovens et al., 2022; Papadopoulos, 2023). Accountability reduces uncertainty among stakeholders and strengthens confidence in collaborative processes. In complex governance environments where multiple actors share responsibilities, effective accountability mechanisms help clarify roles, establish performance expectations, and enhance institutional legitimacy (Edelenbos & Van Meerkerk, 2022; Handoyo & Anas, 2024). The significance of accountability within the model demonstrates that collaboration alone is insufficient; governance

effectiveness also requires mechanisms that ensure transparency and responsibility throughout the collaborative process.

In a theoretical view, this study provides to the literature of collaborative governance by combining collaborative regional management, stakeholder participation, institutional coordination, and collaborative leadership with the element of accountability. These dimensions have been studied in isolation or in a specific policy field in previous studies. What makes this research novel is the conceptualization of collaborative regional management as a multi-dimensional governance approach, which can tackle the complexity of governance in various regional settings. This integrated approach enhances knowledge of the interaction between different governance dimensions in the process of achieving good governance.

From a practical standpoint, the results have significant policy implications for policy makers and local government decision makers. Regional governments should focus on building collaborative leadership skills and capacities, enhancing inter-organizational coordination processes, formalizing stakeholder participation processes, and creating accountability processes that are transparent. Investments in these areas could strengthen governance resilience and boost local governments' capacity to effectively meet growing community demands. The results further indicate that the governance reform should go beyond the process of reshaping the governance system by strengthening the collaborative capacities in governance networks.

Although this study has added to the work, there are some limitations. The cross-sectional design restricts the extent to which changes in collaborative governance dynamics can be explored. Second, the study was limited to capturing perceptions of stakeholders in a particular governance environment, which may impact the generalizability of the findings. Thirdly, the model does not incorporate further contextual factors like politics, organizational culture, and digital governance capacities. Future studies should use longitudinal studies, comparative regional studies and mixed methodologies to answer the question of how CG evolves in different institutional contexts. The potential of digital collaboration platforms, artificial intelligence and network governance mechanisms in enhancing collaborative regional management can also be explored in future studies. Such efforts would help to build up a more comprehensive understanding of governance innovation in increasingly complex local governance environments.

CONCLUSION

This study shows that the role of collaborative regional management is important when considering the growing complexity of local governance problems, and its ability to improve effectiveness in governance. It is found that the co-ordinated action of stakeholders, institutional co-ordination, collaborative leadership and accountability mechanisms are all interrelated in achieving good governance, of which collaborative leadership is the most effective. The results presented here are supportive of the idea that beyond institutional capacity, governance effectiveness is also influenced by the quality of interaction between a variety of actors within regional governance networks.

This study contributes to the literature of collaborative governance in theory by introducing a multi-aspects governance approach to create an integrated framework of collaborative governance that encompasses various governance dimensions within a single collaborative regional management model. The results of the study highlight the need for better collaborative leadership, inter-organizational coordination, and inclusive stakeholder involvement for better regional governance performance, and establish accountability mechanisms in practice. Overall, these contributions are valid, however, the study suffers from being cross sectional and of a specific

governance context which might limit the generalizability of the findings. Future studies should use a longitudinal and comparative design to explore the dynamics of collaborative governance in various institutional contexts. Other factors, such as digital governance, organizational culture and politics, should be examined as well for a comprehensive picture of collaborative regional governance and how it contributes to the complexity of governance.

REFERENCES

- Agung, M. F. M. (2025). Strategi collaborative governance dalam reformasi pelayanan publik. *The Indonesian Journal of Public Administration*, 11(1), 18–26. <https://doi.org/10.52447/ijpa.v11i1.8231>
- Akibu, R., & Djafar, F. (2025). Aligning policy through inclusive multi-level governance in local development planning. *Otoritas: Jurnal Ilmu Pemerintahan*, 16(1). <https://doi.org/10.26618/ojip.v16i1.20264>
- Alkadafi, M., Susanti, S., Wasistiono, S., & Broto, M. F. (2025). Hybrid and collaborative governance model for village development in Indonesia. *Jurnal Administrasi Publik*, 15(2), 209–228. <https://doi.org/10.31289/jap.v15i2.14443>
- Ansell, C., & Gash, A. (2008). Collaborative governance in theory and practice. *Journal of Public Administration Research and Theory*, 18(4), 543–571. <https://doi.org/10.1093/jopart/mum032>
- Ansell, C., Sørensen, E., & Torfing, J. (2023). Theories of collaborative governance in contemporary public administration. *Public Administration Review*, 83(4), 721–735.
- Bauer, Z., AbouAssi, K., & Johnston, J. M. (2023). Governance arrangements of cross-sector collaboration and its effectiveness. *Nonprofit and Voluntary Sector Quarterly*, 52(2), 346–369. <https://doi.org/10.1177/08997640221100705>
- Bovens, M., Goodin, R. E., & Schillemans, T. (2022). *The Oxford handbook of public accountability* (2nd ed.). Oxford University Press.
- Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. Sage.
- Bryson, J. M., Crosby, B. C., & Stone, M. M. (2022). Designing and implementing cross-sector collaborations: Needed and challenging. *Public Administration Review*, 82(2), 213–226. <https://doi.org/10.1111/puar.12432>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.
- Cristofoli, D., Meneguzzo, M., & Riccucci, N. M. (2021). Collaborative leadership and public value creation in complex governance settings. *International Public Management Journal*, 24(5), 643–662. <https://doi.org/10.1080/14719037.2016.1209236>
- Edelenbos, J., & Van Meerkerk, I. (2022). Normative considerations of interactive governance: Effectiveness, efficiency, legitimacy and innovation. *Handbook on theories of governance*, 429–444. <https://doi.org/10.4337/9781800371972.00047>
- Emerson, K., & Nabatchi, T. (2022). *Collaborative governance regimes*. Georgetown University Press.
- Guest, G., Namey, E., & Chen, M. (2020). A simple method to assess and report thematic saturation in qualitative research. *PLOS ONE*, 15(5), e0232076.

<https://doi.org/10.1371/journal.pone.0232076>

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Handoyo, S., & Anas, S. (2024). The effect of environmental, social, and governance (ESG) on firm performance: the moderating role of country regulatory quality and government effectiveness in ASEAN. *Cogent Business & Management*, 11(1), 2371071. <https://doi.org/10.1080/23311975.2024.2371071>
- Lægreid, P., & Rykkja, L. H. (2022). Accountability and inter-organizational collaboration within the state. *Public Management Review*, 24(5), 683-703. <https://doi.org/10.1080/14719037.2021.1963822>
- Lee, S. (2022). When tensions become opportunities: Managing accountability demands in collaborative governance. *Journal of Public Administration Research and Theory*, 32(4), 641-655. <https://doi.org/10.1093/jopart/muab051>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Liu, Y., Zhu, Q., Li, S., Yao, L., & Wang, D. (2025). The family, school and community linkage of improving adolescent physical fitness and health: based on the ANT. *Frontiers in Psychology*, 16, 1663693. <https://doi.org/10.3389/fpsyg.2025.1663693>
- McNaught, R. (2024). The application of collaborative governance in local level climate and disaster resilient development—A global review. *Environmental Science & Policy*, 151, 103627. <https://doi.org/10.1016/j.envsci.2023.103627>
- Nabatchi, T., & Leighninger, M. (2023). *Public participation for 21st century democracy* (2nd ed.). Jossey-Bass.
- Papadopoulos, Y. (2023). Accountability and legitimacy in collaborative governance arrangements. *Governance*, 36(2), 389-405. <https://doi.org/10.4000/12vzv>
- Peters, B. G. (2023). *Governance, politics and the state* (3rd ed.). Red Globe Press.
- Quick, K. S., & Feldman, M. S. (2022). Facilitating inclusive public participation and collaborative governance. *Administration & Society*, 54(4), 587-610.
- Radtke, J. (2025). Understanding the complexity of governing energy transitions: introducing an integrated approach of policy and transition perspectives. *Environmental Policy and Governance*, 35(4), 595-614. <https://doi.org/10.1002/eet.2158>
- Riadi, S., & Erdiyansyah. (2021). Collaborative governance in handling natural and non-natural disasters based on the perspective of public administration: Evidence from Indonesia. *Problems and Perspectives in Management*, 19(2), 468-479. [https://doi.org/10.21511/ppm.19\(2\).2021.37](https://doi.org/10.21511/ppm.19(2).2021.37)
- Salvador, M., & Sancho, D. (2023). Local governments facing turbulence: Robust governance and institutional capacities. *Social Sciences*, 12(8), 462. <https://doi.org/10.3390/socsci12080462>
- Sapri, Mardhatillah, & Ramlan, P. (2025). From coordination to convergence: A collaborative governance model for multi-sectoral stunting reduction in decentralized contexts. *Journal of Governance and Public Policy*, 13(1). <https://doi.org/10.18196/jgpp.v13i1.28137>
- Sekaran, U., & Bougie, R. (2019). *Research methods for business: A skill-building*

approach (8th ed.). Wiley.

- Shodiq, M. F., & Biqy, M. H. (2025). The dynamics of conflict in public policy formulation: A behavioral and stakeholder perspective. *Fast in Social Sciences*, 1(1), 101-110.
- Skokan, K., Pawliczek, A., & Piszczur, R. (2021). Stakeholder participation in local governance as a key to local strategic development. *Cities*, 118, 103363. <https://doi.org/10.1016/j.cities.2021.103363>
- Sumarno, D. A. (2025). Power dynamics and multi-stakeholder collaborative governance: Unveiling stakeholder interests in the Citarum Harum Program. *Khazanah Sosial*, 7(1). <https://doi.org/10.15575/ks.v7i1.44593>
- Sundram, P. (2025). Network governance in ASEAN: Fostering regional cooperation and integration. *Frontiers in Political Science*, 7, 1434595. <https://doi.org/10.3389/fpos.2025.1434595>
- Torfin, J., & Triantafillou, P. (2022). Enhancing public innovation through collaborative governance. *Public Management Review*, 24(8), 1121–1140.
- Torfin, J., Sørensen, E., & Røiseland, A. (2021). Transforming the public sector into an arena for co-creation and collaborative innovation. *Administration & Society*, 53(5), 795–825. https://doi.org/10.1057/9781137506801_8
- Van den Ende, M. A., Hegger, D. L., Mees, H. L., & Driessen, P. P. (2023). Wicked problems and creeping crises: A framework for analyzing governance challenges to addressing environmental land-use problems. *Environmental Science & Policy*, 141, 168-177. <https://doi.org/10.1016/j.envsci.2023.01.006>
- van der Wal, G. (2025). Towards a Collaborative-adaptive Network Governance Framework for Sustainable Development. *Journal of Public Administration and Development Alternatives (JPADA)*, 10(1), 1-23. <https://doi.org/10.55190/JPADA.2025.412>
- Widhiantari, S. A., & Kurniawan, T. (2025). Collaborative governance in localizing the Sustainable Development Goals (SDGs): A case study of Jakarta's regional action plan. *Comserva: Jurnal Penelitian dan Pengabdian Masyarakat*, 5(1). <https://doi.org/10.59141/comserva.v5i1.3132>
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Sage.