

Sustaining Cooperatives through Governance, Resilience, and Innovation: A Systematic Literature Review and Future Research Agenda

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Abstract

Cooperatives are increasingly recognized as strategic institutions for inclusive and sustainable development, particularly in emerging economies where many community-based actors face limited access to finance, markets, technology, and institutional support. Yet, cooperative sustainability research remains fragmented across sectors, theories, methods, and outcomes. This systematic literature review synthesizes how governance, resilience, and innovation shape cooperative sustainability and future research directions. Drawing on Scopus-indexed literature from 2020 to 2026, this review followed a PRISMA-informed process. From 842 initial records, 475 reports were assessed after time-period filtering, and 82 studies were included. Thematic and framework-based synthesis organized the evidence into four themes: governance and institutional capacity, resilience and adaptive capacity, innovation and sustainable business models, and sustainability outcomes. The findings show that cooperative sustainability is not an automatic result of member ownership. It emerges from the alignment of participatory governance, institutional legitimacy, social capital, risk management, financial capacity, innovation readiness, and stakeholder coordination. Governance builds accountability, trust, participation, and clarity. Resilience helps cooperatives absorb shocks and protect livelihoods amid market, climate, disease, and financial uncertainty. Innovation supports transformation through digital capability, circular economy, certification, Islamic social finance, sustainable supply chains, and business model redesign. The review also identifies tensions related to elite capture, weak accountability, facilitation dependency, gender exclusion, digital inequality, and inconsistent measurement. This review reframes cooperative sustainability as a multidimensional strategic process, not merely organizational survival. It proposes an integrated governance–resilience–innovation perspective and calls for longitudinal, comparative, multi-level, and mixed-method research to explain when, how, and under what conditions cooperatives create sustainable value.

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1. INTRODUCTION

Cooperatives have increasingly been recognized as strategic institutions for inclusive and sustainable development, particularly in emerging economies where smallholders, microentrepreneurs, rural communities, and informal workers often face limited access to finance, markets, technology, infrastructure, and institutional support.

Unlike investor-owned firms, cooperatives are built on member ownership, democratic participation, collective benefit, and social purpose. This organizational character enables cooperatives to operate not only as business entities but also as intermediary institutions that connect communities with markets, public policy, sustainability standards, knowledge networks, and value-chain opportunities. In this context, cooperative sustainability has become an important scholarly issue because cooperatives are expected to remain economically viable while also supporting social inclusion, environmental responsibility, institutional resilience, and community development.

Previous literature has examined cooperative sustainability from several disciplinary perspectives. Agricultural economics and rural development studies show that cooperatives may improve income, market access, certification adoption, technology diffusion, and productivity through collective bargaining, training, input provision, and value-chain coordination (He & Chen, 2024; Liu et al., 2022; Sellare et al., 2020; Toiba et al., 2024; Twumasi et al., 2021). Financial and local development studies highlight the role of credit cooperatives and cooperative-based financial institutions in supporting underserved communities, reducing inequality, and improving technical efficiency (Arestis & Phelps, 2023; Mnisi & Alhassan, 2021). Environmental and circular economy studies further show that cooperatives can contribute to conservation tillage, waste management, resource recovery, public procurement, and sustainable supply-chain practices (Baek & Radziwon, 2023; Ferronato et al., 2020; J. C. Liao, 2022; Silva et al., 2020; Zahrah et al., 2024; Zhuo et al., 2023). These studies indicate that cooperatives are increasingly viewed as development intermediaries capable of linking organizational sustainability with broader social and ecological outcomes.

The state of the art also shows that cooperative sustainability is no longer understood merely as organizational survival. It is increasingly conceptualized as a multidimensional construct that combines economic, social, and environmental performance with cooperative-specific dimensions such as governance, identity, member participation, social capital, institutional legitimacy, and stakeholder embeddedness (Kusmiati et al., 2023; Wulandhari et al., 2022). Cooperative theory explains this distinctiveness through member ownership, democratic control, mutual benefit, collective action, and the dual pursuit of economic and social objectives. Stakeholder theory extends this view by positioning cooperatives within wider networks of members, government agencies, firms, buyers, nongovernmental organizations, and community actors (Baek & Radziwon, 2023; Silva et al., 2020). Institutional theory further explains how laws, norms, certification systems, facilitation programs, and public policies shape cooperative behavior and sustainability pathways, while also showing how weak institutional design may produce dependency, elite capture, or governance failure (Li et al., 2025; Rosairo & Esham, 2021). Social capital theory highlights the role of trust, reciprocity, solidarity, and networks in sustaining collective action and resilience (Wulandhari et al., 2022; Yuhertiana et al., 2022). Meanwhile, the resource-based view and dynamic capabilities theory explain how cooperatives mobilize collective resources, digital capability, traceability systems, training, and adaptive routines to respond to market shocks, technological change, climate pressures, and sustainability transitions (Anwar et al., 2023; Deng et al., 2025; Wahyuningtyas et al., 2023).

Historically, cooperative research has moved from a narrow concern with member welfare, poverty reduction, and rural development toward a broader concern with sustainability-oriented strategy, resilience, innovation, and transition intermediation. Earlier studies mainly assessed whether cooperative membership improved household income, bargaining power, credit access, productivity, and livelihoods (Toiba et al., 2024; Twumasi et al., 2021). Over time, sustainability standards and buyer requirements shifted attention

toward certification, traceability, premium distribution, and governance quality in value chains (Bemelmans et al., 2025; Sellare et al., 2020). External shocks, including COVID-19, animal disease outbreaks, climate stress, and supply-chain disruption, further moved the field toward resilience and adaptive capacity (Firman et al., 2024; Prakash, 2022; Yuhertiana et al., 2022). More recent studies extend the discussion to circular economy practices, digital transformation, Islamic social finance, platform-based coordination, and sustainable business model innovation (Amend et al., 2024; Ascarya et al., 2023; Ferronato et al., 2020; Sintani et al., 2024; Sukmana et al., 2024). This evolution shows that cooperative sustainability has become a multi-scalar and multi-theoretical field, but its knowledge base remains dispersed.

Despite these advances, important gaps remain. First, the literature has not fully integrated the distinction between sustainability of cooperatives and sustainability through cooperatives. The former refers to the cooperative's internal capacity to remain viable, democratic, resilient, and legitimate, while the latter refers to its broader role in generating inclusive value, environmental stewardship, technology diffusion, and community empowerment. Second, findings on cooperative outcomes remain inconsistent. Cooperative membership can improve income, productivity, welfare, certification adoption, and resilience under certain conditions (He & Chen, 2024; Toiba et al., 2024; Twumasi et al., 2021), but the effects may be heterogeneous, limited, or negative when governance is weak, intermediaries dominate decision-making, incentives are poorly designed, or institutional support is inadequate (Chaudhary et al., 2022; Li et al., 2025; Ngo et al., 2025; Rosairo & Esham, 2021). Third, research on governance, resilience, and innovation often develops in separate streams. Governance studies emphasize participation, accountability, board quality, and institutional legitimacy; resilience studies focus on social capital, financial buffers, risk-sharing, and crisis response; while innovation studies examine digital capability, technology adoption, certification, circular economy, and business model renewal. These streams provide valuable insights but do not yet offer an integrated explanation of how cooperatives become sustainable over time.

The scientific novelty of this article lies in its integrative governance–resilience–innovation perspective. Rather than reviewing cooperative sustainability as separate issues of performance, membership, finance, technology adoption, or environmental practice, this study synthesizes the literature by positioning governance as the foundation for participation, accountability, trust, and institutional legitimacy; resilience as the capacity to absorb shocks, manage risks, and protect member livelihoods; and innovation as the mechanism through which cooperatives renew business models, adopt digital tools, strengthen supply chains, and create sustainable value. This perspective reframes cooperative sustainability as a dynamic strategic process rather than a static organizational condition or an automatic consequence of cooperative principles.

The research problem addressed in this article is how cooperatives create sustainable value under conditions of institutional complexity, market uncertainty, technological change, and socio-environmental pressure. More specifically, the article asks how cooperative sustainability is conceptualized and measured, how governance and institutional capacity shape cooperative outcomes, how cooperatives build resilience and adaptive capacity, how innovation supports sustainable business models, and what future research directions can strengthen theory, methodology, and practice. Therefore, this study aims to systematically synthesize recent Scopus-indexed literature on cooperative sustainability through the integrated lenses of governance, resilience, and innovation. The article proceeds as follows. Section 2 explains the systematic review method. Section 3 presents the thematic findings. Section 4 discusses the integrated framework and implications. Section 5 concludes the article.

2. METHOD

2.1 Search Strategy

This study used a systematic literature review to synthesize recent research on cooperative sustainability, focusing on governance, resilience, innovation, and sustainability outcomes. The review followed a PRISMA-informed flow to make the search, screening, eligibility assessment, and inclusion process transparent and replicable.

Scopus was selected as the main database because it provides broad coverage of peer-reviewed literature across management, agricultural economics, environmental studies, development studies, public policy, and social enterprise. The search was conducted in the TITLE-ABS-KEY field using three keyword groups: cooperative-related terms, sustainability-related terms, and contextual terms. The final Boolean search combined “cooperative*” OR “co-operative*” with sustainab*, resilience, and “adaptive capacity”, and was limited to developing-country, emerging-economy, Indonesia, or ASEAN contexts. The review included English-language journal articles published from 2020 to 2026, a period in which cooperative studies increasingly addressed resilience, digital transformation, circular economy, and sustainability transitions (Wahyuningtyas et al., 2023; Yuhertiana et al., 2022; Zahrah et al., 2024).

2.2 Eligibility Criteria

Studies were included when they examined cooperatives or cooperative-like organizations, including farmer cooperatives, producer organizations, credit cooperatives, dairy cooperatives, Islamic cooperatives, community-based cooperatives, cooperative banks, Baitul Maal wat Tamwil, or social enterprises with cooperative characteristics. Eligible studies also had to address at least one sustainability-related dimension, such as governance, resilience, innovation, sustainability performance, environmental outcomes, social inclusion, digital transformation, or community development.

Peer-reviewed journal articles were prioritized to maintain academic quality and comparability. Quantitative, qualitative, mixed-method, conceptual, and review studies were retained when they contributed directly to the understanding of cooperative sustainability. Studies were excluded when “cooperative” referred only to general cooperation, cooperative learning, technical cooperation, or intergovernmental cooperation without organizational relevance. Papers were also removed when sustainability was only marginally mentioned, cooperatives were peripheral to the analysis, or the documents fell outside the language, document-type, and publication-period criteria.

2.3 Screening and Selection

The initial Scopus search identified 842 records. No duplicate records were found, and no records were removed by automation tools. In the first screening step, 367 records published before 2020 were excluded, leaving 475 reports for retrieval and eligibility assessment. All 475 reports were available at the abstract or metadata level.

The records were then filtered by document type and language. Limiting the corpus to journal articles resulted in 318 records, and applying the English-language criterion resulted in 311 records. A further 229 records were excluded because they were outside the scope of the review, mainly because they did not centrally address cooperative sustainability or treated cooperatives only as a peripheral context. The final corpus consisted of 82 studies. The research flow is presented in Figure 1, which summarizes the identification, screening, eligibility assessment, and inclusion stages.

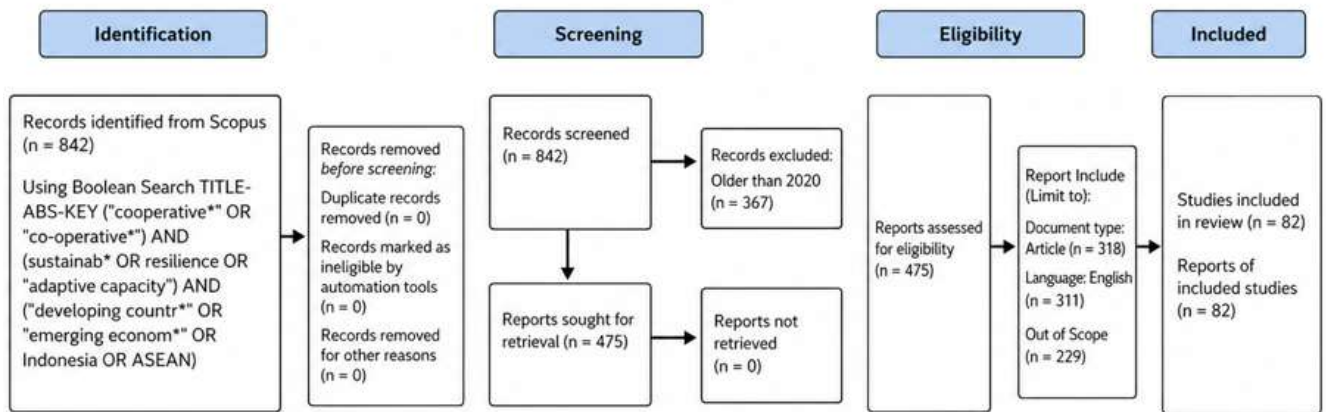


Figure 1. PRISMA flow diagram of the study selection process.

2.4 Quality Assessment and Data Extraction

Because the included studies used diverse designs, quality assessment was based on general appraisal criteria rather than a single risk-of-bias tool. Each study was assessed for relevance, clarity of objective, methodological transparency, analytical rigor, theoretical grounding, and contribution to the review questions. Quantitative studies were examined for sampling, measurement, model specification, and treatment of selection bias or endogeneity, while qualitative studies were assessed for contextual richness, data transparency, and analytical depth (He & Chen, 2024; Sellare et al., 2020; Toiba et al., 2024; Twumasi et al., 2021).

Data were extracted using a structured matrix covering author, year, context, cooperative type, objective, theoretical lens, method, data source, key constructs, findings, limitations, and future research directions. The extracted evidence was organized into four thematic groups: governance and institutional capacity; resilience and adaptive capacity; innovation and sustainable business models; and sustainability outcomes. The synthesis combined deductive coding based on these themes with inductive coding to capture recurring patterns such as member participation, external facilitation, elite capture, risk-sharing, digital readiness, circular economy, financial inclusion, certification, and multidimensional performance.

3. RESULTS AND DISCUSSION (12 PT)

This section presents the scientific findings obtained from the synthesis of 82 studies. The evidence was grouped into four domains: governance and institutional capacity, resilience and adaptive capacity, innovation and sustainable business models, and sustainability outcomes. The main finding is that cooperative sustainability is not produced by cooperative ownership alone. It emerges when member-centered governance, resilience capability, and innovation capacity work together within supportive institutional and market environments. This finding answers the central problem of the study by explaining how cooperatives create sustainable value under uncertainty.

3.1 Governance and institutional capacity as the foundation of cooperative sustainability

The first finding shows that governance is the foundation of cooperative sustainability. The studies in Table 1 indicate that member participation, board quality, leadership, accountability, trust, institutional role clarity, and stakeholder coordination shape cooperative performance and long-term viability (Kurniawan & Wardati, 2023; Kusmiati et al., 2023; Mufarokhah et al., 2025). This occurs because cooperatives depend

on collective ownership and member trust. When decision-making is transparent and members are meaningfully involved, cooperatives are more able to mobilize resources, maintain legitimacy, coordinate collective action, and negotiate with external actors.

This pattern appears across sectors. Collaborative procurement governance supports social value creation (Mufarokhah et al., 2025), while palm oil and seaweed studies show that sustainability requires stronger farmer cooperatives, transparent markets, institutional restructuring, and multi-stakeholder coordination (Nuryadi, 2023; Simatupang et al., 2026). In Islamic boarding school cooperatives, leadership, entrepreneurship, and religious values support business sustainability (Ariatin et al., 2024; Sulaiman & Ahmadi, 2020). These findings are consistent with cooperative theory and stakeholder theory because cooperative sustainability requires both internal democratic capacity and external relational capacity.

At the same time, governance can also become a source of failure. Studies on intermediary-led cooperatives, patriarchal coffee governance, externally facilitated farmer companies, and top-down cooperative policy show that weak accountability may create elite capture, dependency, unequal benefit sharing, and loss of member control (Hajad et al., 2025; Li et al., 2025; Mauludin et al., 2025; Rosairo & Esham, 2021). This explains why cooperative form does not automatically guarantee inclusion. Governance indicators such as participation, voting mechanisms, patronage refund transparency, gender inclusion, and board accountability should therefore be treated as explanatory variables, not merely descriptive features.

3.2 Resilience and adaptive capacity under uncertainty

The second finding shows that resilience enables cooperatives to absorb shocks and protect member livelihoods. Table 2 shows that resilience is discussed in relation to pandemics, animal disease outbreaks, climate stress, replanting risks, livelihood vulnerability, supply-chain disruption, and financial uncertainty. Social capital is one of the most consistent explanations. Wulandhari et al. (2022) show that social capital supports transparency, collaboration, flexibility, and individual resilience, while Yuhertiana et al. (2022) show that solidarity and government support helped cooperatives survive during COVID-19. This happens because trust and reciprocity reduce coordination costs during crisis and allow members to act collectively when formal systems are weak.

Financial and operational capacity also shape resilience. Risk transparency, risk identification, and risk culture improve the financial sustainability of savings and credit cooperatives (Kesanta et al., 2025), while capital structure, credit risk, social performance, and financial performance jointly affect small-scale cooperative sustainability (Setiadjatnika et al., 2020). Firman et al. (2024) report that dairy cooperative milk production declined by 19.45% from the COVID-19 period to the Foot-and-Mouth Disease period, showing that resilience must be assessed under repeated shocks. Other studies confirm that resilience depends on savings, assets, technical capacity, biosecurity, cooperative support, and market access (Amin et al., 2026; Hidayati et al., 2025; Mulyasari et al., 2025; Prakash, 2022).

The evidence distinguishes cooperatives that merely survive from those that adapt and transform. Survival often relies on solidarity or temporary external assistance. Transformation requires institutionalized social capital, internal revenue, risk governance, diversified finance, bundled services, and adaptive learning (Arestis & Phelps, 2023; Echarte et al., 2026; Mnisi & Alhassan, 2021). This finding refines dynamic capabilities theory by showing that cooperatives need not only absorptive and adaptive capacity, but also transformative capacity to redesign operations and convert crisis response into long-term value creation.

3.3 Innovation, digital transformation, and sustainable business model renewal

The third finding shows that innovation enables cooperatives to renew value creation. Table 3 indicates that innovation includes digital capability, digital marketing, circular economy, certification, Islamic social finance, sustainable supply chains, technology adoption, business model redesign, and operational optimization. Wahyuningtyas et al. (2023) show that digital orientation and government support affect digital innovation, while digital capability, orientation, and support affect competitiveness. However, digital innovation itself does not automatically improve competitiveness. This challenges the assumption that technology adoption directly creates performance. Digital transformation contributes to sustainability only when supported by capability, governance, member readiness, and market relevance.

A similar pattern appears in circular economy and sustainable supply-chain studies. Cooperatives can facilitate industrial symbiosis through coffee-waste valorization (Laili et al., 2024), reduce food waste through cooperative business models (Teixeira et al., 2025), and support circular rice supply chains when investment, logistics, partnerships, literacy, and policy incentives are available (Utama et al., 2026). These findings explain why innovation outcomes vary. Cooperatives with stronger governance and financing capacity can translate innovation into environmental and economic value, while weaker cooperatives may adopt innovation superficially without achieving transformation.

Islamic finance and social innovation broaden the meaning of innovation. Cash waqf, Baitul Maal wat Tamwil, and livestock financing models can support sustainable economic empowerment (Ascarya et al., 2023; Sukmana et al., 2024), while knowledge transfer and stakeholder empowerment may shift communities from dependency-driven innovation toward autonomous social innovation (Civera et al., 2026). Thus, cooperative innovation is not only technological; it may also be financial, social, religious, institutional, and ecological.

3.4 Sustainability outcomes and performance patterns

The fourth finding concerns how cooperative sustainability is measured. Table 4 shows that outcomes include economic performance, technical efficiency, income, financial sustainability, social value, empowerment, environmental benefits, supply-chain maturity, digital competitiveness, circular economy outcomes, and community development. This confirms that cooperative sustainability is multidimensional. Cooperative membership improves household income, net returns, and fresh milk profits but may reduce processed milk profits (Toiba et al., 2024). Agricultural cooperatives increase production revenue through capital, intermediate inputs, and technology investment (He & Chen, 2024). Cooperative membership also supports certification adoption and farm performance (Dong & Liang, 2023), but its effect on technical efficiency may differ between organic and conventional farming systems (Ngo et al., 2025).

These mixed findings are not contradictions; they show that cooperative outcomes are context-dependent. Positive effects occur when governance quality, service provision, market access, financing, and technology fit are aligned. Negative or limited effects occur when the cooperative model does not match the production system, member capability, or market structure. Environmental evidence follows the same logic. Cooperative-led conservation tillage may improve soil organic carbon and reduce carbon footprints (Liao et al., 2022), while other contexts show weaker or more complex environmental results when incentives and technical capacity are inadequate (Chaudhary et al., 2022).

Outcome studies also show that social and environmental performance should not be separated from financial performance. Financial and social performance jointly explain cooperative sustainability (Setiadjatnika et al., 2020), while social innovation may affect financial performance indirectly through social and environmental performance (Basri et al., 2025). This suggests that cooperative sustainability often works through mediated

pathways. Benefits may first appear as stronger trust, participation, member capability, social value, or environmental improvement before becoming visible as financial performance.

3.5 Integrated scientific interpretation and framework

Taken together, the results support the hypothesis that cooperative sustainability is strengthened when governance, resilience, and innovation are aligned. Governance legitimizes and coordinates collective action; resilience protects cooperatives and members under stress; and innovation enables renewal and long-term value creation. This explains why some cooperatives merely survive while others transform. Cooperatives that rely only on solidarity or external support may endure short-term shocks but remain vulnerable. Cooperatives that institutionalize participation, build financial buffers, provide bundled services, adopt appropriate innovations, and maintain transparent stakeholder relationships are more likely to generate sustainable economic, social, and environmental outcomes.

This integrated interpretation is summarized in Figure 2. The framework positions the enabling context, including policy support, certification systems, buyer relations, financial architecture, digital infrastructure, and socio-cultural norms, as the external condition shaping cooperative sustainability. Within this context, governance and institutional capacity provide the foundation for member participation, accountability, leadership, transparency, and stakeholder coordination. These governance conditions strengthen resilience and adaptive capacity through social capital, risk management, financial buffers, crisis response, and adaptive learning. Resilience then supports innovation and business model renewal by creating the stability needed for digital capability, circular economy practices, certification and traceability, Islamic social finance, and supply-chain innovation. Together, these mechanisms produce multidimensional sustainability outcomes, including economic viability, member welfare, social inclusion, environmental performance, institutional legitimacy, and long-term community value.

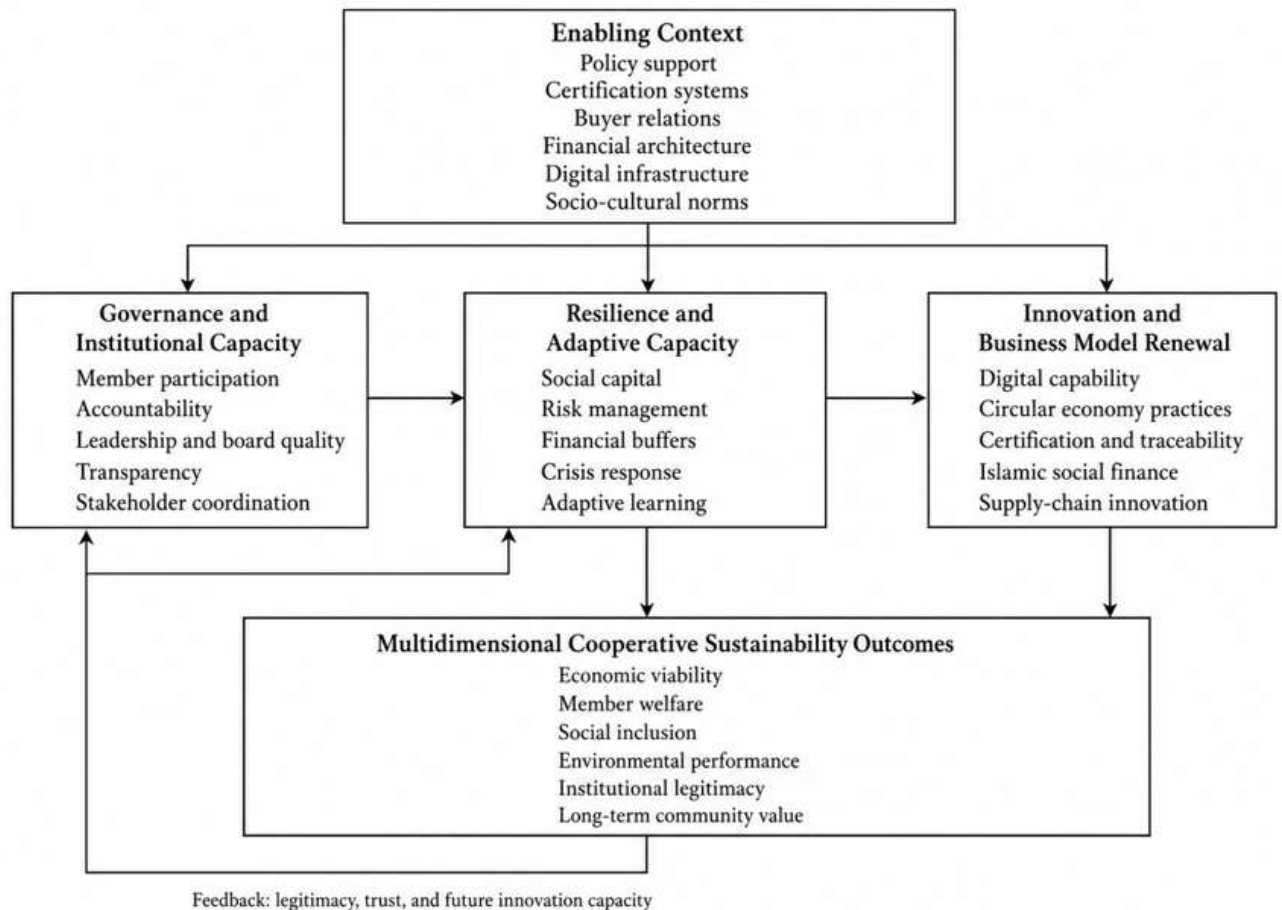


Figure 2. Integrated Governance–Resilience–Innovation Framework for Cooperative Sustainability.

The framework also explains why findings across studies are sometimes convergent and sometimes conditional. When governance, resilience, and innovation reinforce each other, cooperatives are more likely to move from survival to transformation. Conversely, when governance is weak, finance is fragile, member capability is limited, or innovation is disconnected from market and institutional support, sustainability outcomes become uneven. This interpretation extends previous studies that examined cooperative performance, resilience, finance, certification, or innovation separately. The scientific contribution of this review is therefore an integrated explanation of how cooperatives become sustainable under uncertainty.

Methodologically, the reviewed literature is rich but uneven. The use of SEM, PLS-SEM, stochastic frontier analysis, propensity score matching, IPWRA, AHP, dynamic programming, vulnerability indices, ethnography, participatory methods, and case studies shows methodological diversity. However, many studies remain cross-sectional, single-case, small-sample, or context-specific. Stronger causal and quasi-causal studies, such as He & Chen (2024), Sellare et al. (2020), Toiba et al. (2024), Twumasi et al. (2021), show the importance of addressing selection bias and cooperative heterogeneity.

These findings have implications for theory, practice, and policy. Theoretically, cooperative sustainability research should integrate cooperative theory, stakeholder theory, institutional theory, social capital theory, resource-based view, and dynamic capabilities. Practically, cooperative leaders should prioritize member participation, transparent benefit

sharing, risk management, internal finance, digital capability, and service quality before scaling complex innovation or certification programs. For policymakers, cooperative development should move beyond formal registration and be sequenced through governance strengthening, inclusive finance, digital literacy, transparent market arrangements, gender-sensitive participation, and long-term monitoring of economic, social, and environmental outcomes. Future research should develop longitudinal, comparative, and multi-level designs that connect cooperative governance, member outcomes, organizational performance, and environmental indicators, while giving greater attention to failure, elite capture, digital inequality, and conditions where cooperatives do not create sustainable value.

This review therefore suggests four future research directions. First, future studies should develop longitudinal and multi-level designs that connect cooperative governance, member-level outcomes, organizational performance, and environmental indicators. Second, comparative studies across cooperative types, sectors, and institutional contexts are needed to explain why similar cooperative models produce different sustainability outcomes. Third, future research should give greater attention to cooperative failure, elite capture, gender exclusion, digital inequality, and weak accountability, as these issues remain underexplored in the literature. Fourth, stronger mixed-method and quasi-causal designs are needed to clarify how governance, resilience, and innovation interact over time to create sustainable cooperative value (He & Chen, 2024; Liu et al., 2022; Sellare et al., 2020; Toiba et al., 2024; Twumasi et al., 2021).

4. CONCLUSION

This systematic literature review shows that cooperative sustainability is shaped by the combined role of governance, resilience, and innovation. Governance strengthens participation, accountability, legitimacy, and stakeholder coordination. Resilience helps cooperatives and their members face shocks, uncertainty, and structural vulnerability. Innovation supports renewal through digital transformation, circular economy practices, certification, social finance, sustainable supply chains, and business model redesign.

The review contributes by reframing cooperative sustainability as a multidimensional strategic process, not merely organizational survival. Theoretically, it integrates cooperative theory, stakeholder theory, institutional theory, social capital theory, resource-based view, and dynamic capabilities. Practically, it identifies key levers for cooperative leaders and policymakers, including member-centered governance, transparent benefit sharing, risk management culture, cooperative finance, digital capability, training, market linkages, and inclusive institutional support.

This review is limited by its focus on Scopus-indexed English-language studies from 2020 to 2026 and by the methodological diversity of the included articles. Future studies should use longitudinal, comparative, and multi-level designs that connect cooperative governance, member outcomes, organizational performance, and environmental indicators. More attention is also needed to cooperative failure, elite capture, gender exclusion, digital inequality, and conditions where cooperatives fail to create sustainable value.

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6. BIBLIOGRAPHY

- Amend, J., Troglauer, P., Guggenberger, T., Urbach, N., & Weibelzahl, M. (2024). Facilitating cooperation of smallholders in developing countries: Design principles for a cooperative-oriented decentralized autonomous organization. *Information Systems and E-Business Management*, 22(1), 1–31. Scopus. <https://doi.org/10.1007/s10257-023-00659-7>
- Amin, C., Fikriyah, V. N., & Samson, M. G. M. (2026). Livelihood vulnerability of urban waste pickers in Indonesia: Insights for inclusive circular economy transitions. *World Development Sustainability*, 8. Scopus. <https://doi.org/10.1016/j.wds.2026.100268>
- Anwar, S., Perdana, T., Rachmadi, M., & Noor, T. I. (2023). Product Traceability and Supply Chain Sustainability of Black Soybeans as Raw Materials for Soy Sauce in Maintaining Quality and Safety. *Sustainability (Switzerland)*, 15(18). Scopus. <https://doi.org/10.3390/su151813453>
- Arestis, P., & Phelps, P. (2023). Local Financial Institutions and Income Inequality: Evidence from Brazil's Credit Cooperative Movement. *Development and Change*, 54(4), 739–779. Scopus. <https://doi.org/10.1111/dech.12780>
- Ariatin, A., Dhewanto, W., & Yudha, O. (2024). Entrepreneurial Muslim leadership in Islamic cooperative business unit. *Journal of Islamic Accounting and Business Research*, 15(3), 499–518. Scopus. <https://doi.org/10.1108/JIABR-04-2022-0100>
- Ascarya, A., Sukmana, R., Rahmawati, S., & Masrifah, A. R. (2023). Developing cash waqf models for Baitul Maal wat Tamwil as integrated Islamic social and commercial microfinance. *Journal of Islamic Accounting and Business Research*, 14(5), 699–717. Scopus. <https://doi.org/10.1108/JIABR-09-2020-0267>
- Baek, S., & Radziwon, A. (2023). Towards a sustainable agri-food ecosystem: The case study of South Korean public food procurement. *British Food Journal*, 125(12), 4335–4356. Scopus. <https://doi.org/10.1108/BFJ-10-2022-0885>
- Basri, Y. M., Gusnardi, G., Tassanee, D. N., Indrapraja, D. P. H., Sari, R. N., & Ratnawati, V. (2025). Social innovation and financial performance of social enterprises: The mediating role of social and environmental performance. *Cogent Business and Management*, 12(1). Scopus. <https://doi.org/10.1080/23311975.2025.2551283>
- Bemelmans, J., Depoorter, C., & Maertens, M. (2025). Corporate implementation of certification and its impact on cocoa producers in Indonesia. *Development Policy Review*, 43(5). Scopus. <https://doi.org/10.1111/dpr.70022>
- Chaudhary, A. K., Pandit, R., & Burton, M. (2022). Effect of socioeconomic and institutional factors and sustainable land management practices on soil fertility in smallholder farms in the Mahottari District, Nepal. *Land Degradation and Development*, 33(2), 269–281. Scopus. <https://doi.org/10.1002/ldr.4143>
- Civera, C., Casalegno, C., Morelli, B., & Santoro, G. (2026). Seeds of change: Unpacking the enduring effects of MNC knowledge transfer in autonomous social innovation projects by fringe stakeholders. *Technovation*, 149. Scopus. <https://doi.org/10.1016/j.technovation.2025.103370>
- Deng, H., Duan, Y., & Zhao, Y. (2025). Technology adoption and contractual arrangements under credit constraints: Evidence from apple growers in rural China. *Frontiers in Sustainable Food Systems*, 9. Scopus. <https://doi.org/10.3389/fsufs.2025.1650651>
- Dong, H., & Liang, Q. (2023). Agro-food quality certification, agricultural organizations, and farm performance: Evidence from vegetable farmers in China. *International*

- Journal of Agricultural Sustainability*, 21(1). Scopus. <https://doi.org/10.1080/14735903.2023.2205772>
- Echarte, M. M., Sanz Smachetti, M. E., Maiorano, J., Iriarte, L., García, N., Costa, A. M., Glessi, W., & Giudice, A. (2026). Co-creating sustainable futures: A biogas case study in Argentina's humid pampas. *Energy for Sustainable Development*, 92. Scopus. <https://doi.org/10.1016/j.esd.2026.101953>
- Ferronato, N., Gorritty Portillo, M. A., Guisbert Lizarazu, E. G., & Torretta, V. (2020). Application of a life cycle assessment for assessing municipal solid waste management systems in Bolivia in an international cooperative framework. *Waste Management and Research*, 38(1_suppl), 98–116. Scopus. <https://doi.org/10.1177/0734242X20906250>
- Firman, A., Mauludin, M. A., & Kusmayadi, T. (2024). Financial Performance of Dairy Cooveratives in West Java-Indonesia During the Covid-19 Pandemic and Foot-and-Mouth Disease Outbreak. *Buletin Peternakan*, 48(1), 20–33. Scopus. <https://doi.org/10.21059/buletinpeternak.v48i1.88816>
- Hajad, V., Ikhsan, I., Zhafira, N. H., Sari, I. P., & Dewi, S. V. (2025). Gendered exclusion and governance failures in Indonesia's Gayo coffee sector: Towards inclusive and equitable agrarian development. *Development Studies Research*, 12(1). Scopus. <https://doi.org/10.1080/21665095.2025.2584042>
- He, Y., & Chen, Y. (2024). The Impact of Agricultural Cooperatives on Farmers' Agricultural Revenue: Evidence from Rural China. *Sustainability (Switzerland)*, 16(24). Scopus. <https://doi.org/10.3390/su162410979>
- Hidayati, F., El Pebrian, D., & Gusril, A. (2025). Assessing household vulnerability of smallholder farmers during oil palm replanting: A case study in West Sumatra, Indonesia. *OCL - Oilseeds and Fats, Crops and Lipids*, 32. Scopus. <https://doi.org/10.1051/ocl/2025031>
- Kesanta, M. N., Makuya, V., & Makona, A. (2025). Risk management practices and financial sustainability: Evidence from savings and credit cooperative societies in Tanzania. *Cogent Business and Management*, 12(1). Scopus. <https://doi.org/10.1080/23311975.2025.2563034>
- Kurniawan, B. P. Y., & Wardati, I. (2023). A Theoretical Model for Increasing Coffee Farmers Groups' Institutional Capacity in Jember, Indonesia. *Universal Journal of Agricultural Research*, 11(5), 822–828. Scopus. <https://doi.org/10.13189/ujar.2023.110507>
- Kusmiati, E., Masyita, D., Febrian, E., & Cahyandito, M. F. (2023). A study on the determinants of successful performance of Indonesian cooperatives. *International Journal of Social Economics*, 50(9), 1285–1301. Scopus. <https://doi.org/10.1108/IJSE-02-2022-0078>
- Laili, N., Djatna, T., Indrasti, N. S., & Yani, M. (2024). Optimization of industrial symbiosis in coffee-based eco-industrial park design. *Global Journal of Environmental Science and Management*, 10(2), 621–642. Scopus. <https://doi.org/10.22035/gjesm.2024.02.13>
- Li, Z., Yu, J., Li, D., Qian, H., & Zhong, Z. (2025). Political power and risk sharing in an intermediary-led cooperative: Theory and empirical observations from China. *European Review of Agricultural Economics*, 52(1), 1–22. Scopus. <https://doi.org/10.1093/erae/jbaf008>
- Liao, J. C. (2022). Talking Green, Building Brown: China-ASEAN Environmental and Energy Cooperation in the BRI Era. *Asian Perspective*, 46(1), 21–47. Scopus. <https://doi.org/10.1353/apr.2022.0001>
- Liao, Y., Zhang, B., Kong, X., Wen, L., Yao, D., Dang, Y., & Chen, W. (2022). A Cooperative-Dominated Model of Conservation Tillage to Mitigate Soil Degradation

- on Cultivated Land and Its Effectiveness Evaluation. *Land*, 11(8). Scopus. <https://doi.org/10.3390/land11081223>
- Liu, Y., Shi, K., Liu, Z., Qiu, L., Wang, Y., Liu, H., & Fu, X. (2022). The Effect of Technical Training Provided by Agricultural Cooperatives on Farmers' Adoption of Organic Fertilizers in China: Based on the Mediation Role of Ability and Perception. *International Journal of Environmental Research and Public Health*, 19(21). Scopus. <https://doi.org/10.3390/ijerph192114277>
- Mauludin, N. A., Wahyudi, A., & Ulum, H. (2025). Legal Policy Model of the Red and White Village Cooperative (KDMP): Implementation Factors and Comparative Insights from Brazil, Denmark, and Japan. *Jurnal IUS Kajian Hukum Dan Keadilan*, 13(3), 682–707. Scopus. <https://doi.org/10.29303/ius.v13i3.1894>
- Mnisi, K. P., & Alhassan, A. L. (2021). Financial structure and cooperative efficiency: A pecking-order evidence from sugarcane farmers in Eswatini. *Annals of Public and Cooperative Economics*, 92(2), 261–281. Scopus. <https://doi.org/10.1111/apce.12295>
- Mufarokhah, L., Putra, A. R. S., & Nurhadi, N. (2025). Optimizing government procurement through social procurement policy innovation: Insights from cross-sector collaboration at the Ministry of Health, Indonesia. *Journal of Public Procurement*, 1–28. Scopus. <https://doi.org/10.1108/JOPP-06-2025-0061>
- Mulyasari, G., Cahyadinata, I., & Hadi, A. I. (2025). Modelling Adaptation to Climate Change among Small-Scale Fishermen in Bengkulu Province in Indonesia. *Challenges in Sustainability*, 13(4), 508–524. Scopus. <https://doi.org/10.56578/cis130403>
- Ngo, M. H., Home, R., Kim, M.-K., Grovermann, C., Yen, N. T. B., & Van Hoi, P. (2025). Promoting sustainable farming systems through technical efficiency enhancement: Insights from the vegetable producers in Vietnam. *Environment, Development and Sustainability*. Scopus. <https://doi.org/10.1007/s10668-025-07136-w>
- Nuryadi, A. M. (2023). Young farmer empowerment model based on freshwater fishery business in Southeast Sulawesi Province, Indonesia. *AAFL Bioflux*, 16(2), 970–978. Scopus.
- Prakash, G. (2022). Resilience in food processing supply chain networks: Empirical evidence from the Indian dairy operations. *Journal of Advances in Management Research*, 19(4), 578–603. Scopus. <https://doi.org/10.1108/JAMR-12-2021-0376>
- Rosairo, H. S. R., & Esham, M. (2021). Pitfalls of External Institutional Facilitation of Farmer Organizations: Insights from Farmer Companies in Sri Lanka. *Millennial Asia*, 12(3), 367–389. Scopus. <https://doi.org/10.1177/09763996211060772>
- Sellare, J., Meemken, E.-M., Kouamé, C., & Qaim, M. (2020). Do Sustainability Standards Benefit Smallholder Farmers Also When Accounting For Cooperative Effects? Evidence from Côte d'Ivoire. *American Journal of Agricultural Economics*, 102(2), 681–695. Scopus. <https://doi.org/10.1002/ajae.12015>
- Setiadjatnika, E., Dasuki, R. E., & Hasyim, A. N. (2020). Integration of financial and social performance: Survey of cooperatives in West Java, Indonesia. *International Journal of Innovation, Creativity and Change*, 13(3), 419–435. Scopus.
- Silva, M. E., Dias, G. P., & Gold, S. (2020). Exploring the roles of lead organisations in spreading sustainability standards throughout food supply chains in an emerging economy. *International Journal of Logistics Management*, 32(3), 1030–1049. Scopus. <https://doi.org/10.1108/IJLM-05-2020-0201>
- Simatupang, D. O., Untari, U., Ginting, N. M., Silas, T. R., Suryaningsih, N. L. S., Suryadi, S., Tuhumena, J. R., Pane, L. R., & Merly, S. L. (2026). BUILDING A RESILIENT AND SUSTAINABLE PALM OIL VALUE CHAIN IN SOUTH PAPUA PROVINCE, INDONESIA. *African Journal of Food, Agriculture, Nutrition and*

- Development*, 26(1), 28552–28583. Scopus. <https://doi.org/10.18697/ajfand.148.26255>
- Sintani, L., Anden, T. E., & Retawati, A. (2024). Supply chain and digital marketing in increasing the acceleration of repositioning in the millennial generation and the implications for cooperative sustainability. *Uncertain Supply Chain Management*, 12(3), 2063–2078. Scopus. <https://doi.org/10.5267/j.uscm.2024.1.025>
- Sukmana, R., Ratnasari, R. T., Majid, R., & Mohd Shafiai, M. H. (2024). Designing waqf-based financing model for livestock project: Empirical evidence from Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*, 17(3), 599–617. Scopus. <https://doi.org/10.1108/IMEFM-06-2023-0211>
- Sulaiman, A. I., & Ahmadi, D. (2020). Empowerment communication in an islamic boarding school as a medium of harmonization. *Jurnal Komunikasi: Malaysian Journal of Communication*, 36(4), 323–338. Scopus. <https://doi.org/10.17576/JKMJC-2020-3604-20>
- Teixeira, N., Rodrigues, R., & Antunes, T. (2025). Circular Economy Models for Reducing Food Waste and Enhancing Sustainability: A Case Study of Cooperative X. *Circular Economy and Sustainability*, 5(4), 3529–3549. Scopus. <https://doi.org/10.1007/s43615-025-00571-x>
- Toiba, H., Rahman, M. S., Hartono, R., & Retnoningsih, D. (2024). Improving dairy farmers' welfare in Indonesia: Does cooperative membership matter? *Annals of Public and Cooperative Economics*, 95(4), 1003–1019. Scopus. <https://doi.org/10.1111/apce.12471>
- Twumasi, M. A., Jiang, Y., Addai, B., Ding, Z., Chandio, A. A., Fosu, P., Asante, D., Siaw, A., Danquah, F. O., Korankye, B. A., Ntim-Amo, G., Ansah, S., & Agbenyo, W. (2021). Article the impact of cooperative membership on fish farm households' income: The case of Ghana. *Sustainability (Switzerland)*, 13(3), 1–16. Scopus. <https://doi.org/10.3390/su13031059>
- Utama, D. M., Amallynda, I., Wardana, R. W., Rosiani, T. Y., Anggriani, R., & Wijaya, D. S. (2026). A New Hybrid Fuzzy Decision Model for Barrier Identification and Strategy Prioritization in Circular Rice Supply Chains: A Case Study in Indonesia. *Indonesian Journal of Science and Technology*, 11(2), 293–320. Scopus. <https://doi.org/10.17509/ijost.v11i2.89788>
- Wahyuningtyas, R., Disastra, G., & Rismayani, R. (2023). Toward cooperative competitiveness for community development in Economic Society 5.0. *Journal of Enterprising Communities*, 17(3), 594–620. Scopus. <https://doi.org/10.1108/JEC-10-2021-0149>
- Wulandhari, N. B. I., Gölgeci, I., Mishra, N., Sivarajah, U., & Gupta, S. (2022). Exploring the role of social capital mechanisms in cooperative resilience. *Journal of Business Research*, 143, 375–386. Scopus. <https://doi.org/10.1016/j.jbusres.2022.01.026>
- Yuhertiana, I., Zakaria, M., Suhartini, D., & Sukiswo, H. W. (2022). Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence. *Sustainability (Switzerland)*, 14(10). Scopus. <https://doi.org/10.3390/su14105839>
- Zahrah, Y., Yu, J., & Liu, X. (2024). How Indonesia's Cities Are Grappling with Plastic Waste: An Integrated Approach towards Sustainable Plastic Waste Management. *Sustainability (Switzerland)*, 16(10). Scopus. <https://doi.org/10.3390/su16103921>
- Zhuo, Q., Liu, C., Wang, B., & Yan, W. (2023). Bridging Local Governments and Residents for Household Waste Source Separation Using a Business-Driven, Multi-Stakeholder Cooperative Partnership Model—A Case Study of HUGE Recycling in Yuhang, Hangzhou, China. *Sustainability (Switzerland)*, 15(15). Scopus. <https://doi.org/10.3390/su151511727>