

A critical literature review of digital transformation and governance for competitive advantage

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Abstract

Cooperatives face persistent performance challenges amid accelerating digital disruption and governance demands; this study critically examines how digital transformation and Good Cooperative Governance (GCG) function as strategic resources shaping competitive advantage and cooperative performance. Using a Critical Literature Review (CLR) of peer-reviewed studies (2021–2025) sourced from Scopus, Google Scholar, and SINTA-indexed journals, 30 relevant journal articles were identified and critically analyzed to synthesize theoretical perspectives, conceptual frameworks, and empirical findings related to digital capabilities, governance, competitive advantage, and multidimensional performance. The review finds that digital transformation and GCG operate as interdependent organizational capabilities whose strategic value emerges when aligned; sustainable competitive advantage functions as the central mediating mechanism translating these capabilities into improved financial and nonfinancial outcomes such as member satisfaction, service quality, and long-term sustainability. However, the literature reveals conceptual ambiguities, inconsistent operationalizations of competitive advantage, limited attention to cooperative-specific governance dynamics, and a shortage of longitudinal and context-sensitive studies. We offer an integrative conceptual model that clarifies these relationships and propose a research agenda emphasizing cooperative-centric theorization, longitudinal and mixed-method designs, and adaptive governance practices to enable effective digital transition. Practitioners should prioritize governance alignment, capacity building, and member engagement to realize the strategic benefits of digital investments.

Keywords: *digital transformation, good cooperative governance, competitive advantage, cooperative performance, critical literature review*

Introduction

Cooperatives play an important role in promoting inclusive economic development by combining economic objectives with social values such as mutual assistance, democratic participation, and member welfare. As member-owned organizations, they are expected to contribute not only to financial performance but also to social sustainability and community resilience. However, many cooperatives, particularly in emerging economies, continue to face persistent challenges, including low efficiency, weak competitiveness, and governance-related problems (Nurjannah, 2023). Recent studies further emphasize that cooperatives are not only economic entities but also socio-economic institutions that contribute to inclusive growth and sustainable development. Their distinctive organizational characteristics, such as democratic governance and member orientation, create both strategic advantages and managerial complexities that differentiate cooperatives from investor-owned firms (Battilani et al., 2022; Tortia et al., 2021). Recent empirical work also highlights that developing dynamic capabilities (sensing, seizing, and reconfiguring)

facilitates successful digital transformation, and governance-related capabilities (e.g., governance-risk-compliance) often mediate this process (Abdurrahman et al., 2024).

In recent years, the external environment of cooperatives has been increasingly shaped by rapid technological change and digital disruption. Digital transformation has emerged as a strategic issue for organizations seeking to improve efficiency, transparency, and service quality. Beyond the mere adoption of information technology, digital transformation refers to a fundamental organizational change process that integrates digital technologies into business models, operational processes, and decision-making structures (Hanelt et al., 2021; Kraus et al., 2021). Prior studies suggest that digital transformation enables organizations to enhance responsiveness, optimize resource utilization, and create new forms of value (Kraus et al., 2021; Värzaru & Bocean, 2024). Action-research evidence shows that cooperatives can collaboratively build shared digital platforms to scale services while retaining member control, thereby allowing them to participate in the platform economy without ceding governance to external platform owners (Dawson Jr et al., 2024). Building on this perspective, contemporary literature conceptualizes digital transformation not merely as technological adoption but as a broader organizational and strategic change process. Digital transformation reshapes how organizations create value, coordinate activities, and interact with stakeholders, requiring the development of dynamic capabilities to manage continuous change (Kraus et al., 2021; Verhoef et al., 2021; Vial, 2021). A socio-technical lens is therefore essential: digitalization simultaneously reshapes technical systems and social routines, so capability-building must address skills, roles, and organizational design, not only technology procurement (Colombari et al., 2024).

For cooperative organizations, digital transformation is often expected to address long-standing operational limitations, such as manual administrative systems, limited access to markets, and inefficient financial management. Nevertheless, the literature indicates that the outcomes of digital initiatives within cooperatives are not always consistent. While some studies report positive effects on organizational performance, others highlight implementation barriers related to limited capabilities, resistance to change, and institutional constraints (Lu & Shaharudin, 2024; Laursen & Andersen, 2023). These mixed findings suggest that digital transformation alone may be insufficient to generate sustainable performance improvements. Context-specific studies (for example, in Indonesia) emphasize the importance of clear legal and institutional frameworks that enable cooperative digitalization, so digital services, member participation, and cross-border opportunities are legally supported and scalable (Sukardi et al., 2024). Recent research highlights that the performance outcomes of digital transformation are highly context-dependent. Organizational structure, institutional environment, and governance arrangements significantly influence whether digital initiatives translate into resilience and sustained performance, particularly in organizations with complex stakeholder structures such as cooperatives (Awad & Martín-Rojas, 2024).

Alongside digital transformation, GCG has been widely recognized as a critical institutional mechanism for strengthening cooperative performance. Governance in cooperatives encompasses principles of transparency, accountability, participation, fairness, and responsibility, which are essential for aligning managerial actions with member interests (Jamaluddin et al., 2023; Sunaryo et al., 2023). Effective governance structures contribute to organizational legitimacy, reduce agency problems, and enhance

trust among stakeholders (Preluca et al., 2022). Moreover, governance scholarship argues that effective cooperative governance must actively manage member heterogeneity by delineating core versus peripheral activities, this boundary-setting reduces conflicts and helps align digital initiatives with members' collective interests (Iliopoulos & Valentinov, 2022). Governance literature also stresses that effective governance mechanisms enhance organizational legitimacy and stakeholder confidence, especially in contexts characterized by collective ownership and shared decision-making. Strong governance frameworks help organizations balance control and participation while responding to environmental uncertainty (Chung et al., 2025; Prencipe, 2025). From a strategic management perspective, governance practices can be viewed not merely as compliance mechanisms but as organizational capabilities that influence decision quality and long-term sustainability. Drawing on the Resource-Based View (RBV), governance systems may function as intangible resources that support the development of competitive advantage when they are embedded in organizational routines and culture (Monson, 2024; Yoshida, 2025). However, prior studies also point to potential tensions between governance formalization and organizational flexibility, particularly in environments characterized by rapid technological change. Recent strategic governance perspectives view governance not merely as a control mechanism but as an organizational capability that can enable innovation, strategic alignment, and long-term value creation. This perspective is particularly relevant in digitally transforming organizations where governance arrangements must adapt to evolving strategic demands (Csedő et al., 2022).

Building on discussions of digital capabilities and governance mechanisms, competitive advantage provides an important lens for understanding how digital transformation and governance influence organizational performance. Competitive advantage refers to an organization's ability to outperform competitors by leveraging resources and capabilities that are valuable, rare, inimitable, and non-substitutable (Monson, 2024; Yoshida, 2025). In the cooperative context, competitive advantage may arise not only from cost efficiency or differentiation but also from relational assets such as member trust, social legitimacy, and community embeddedness (Saz-Gil et al., 2021). In addition to economic efficiency, competitive advantage in cooperatives is increasingly linked to social value creation and long-term stakeholder relationships. The integration of economic and social objectives allows cooperatives to develop distinctive competitive positions that are difficult to replicate, particularly in community-based markets (Bamel et al., 2022).

Although numerous studies examine the relationships among digital transformation, governance, competitive advantage, and performance, the literature remains fragmented, particularly in cooperative contexts. Many studies emphasize statistical associations while providing limited explanation of underlying mechanisms, contextual factors, and institutional characteristics shaping cooperative performance. Consequently, theoretical integration remains weak and findings often lack generalizability across cooperative settings (Alvarez-Vargas et al., 2023; Schweinsberg et al., 2023). Despite the growing literature on digital transformation and governance, several research gaps remain. First, many studies examine these constructs separately, limiting theoretical understanding of how they interact within cooperative organizations. Second, existing research largely focuses on investor-owned firms or SMEs, while the distinctive characteristics of cooperatives, such as democratic governance and member-oriented objectives, remain

underexplored. Third, competitive advantage in cooperatives is inconsistently conceptualized, often emphasizing either economic outcomes or social value rather than integrating both dimensions. These limitations create theoretical ambiguity in explaining how digital capabilities and governance mechanisms jointly influence cooperative performance.

To address these gaps, this study proposes an integrative conceptual model positioning digital transformation and Good Cooperative Governance (GCG) as interdependent strategic capabilities that shape sustainable competitive advantage and cooperative performance. By synthesizing fragmented literature and situating the analysis within cooperative institutional characteristics, this study aims to develop a more coherent and cooperative-centric theoretical framework. Therefore, this study adopts a Critical Literature Review (CLR) to analyze and synthesize existing research on digital transformation, GCG, competitive advantage, and cooperative performance. Unlike systematic reviews that primarily aggregate empirical findings, a CLR enables deeper interpretation and integration of fragmented theoretical perspectives to develop a conceptual framework. This approach allows the study to clarify conceptual ambiguities and cooperative-specific dynamics in the literature. Accordingly, this review develops a cooperative-centric framework in which digital transformation and GCG function as interdependent strategic capabilities, with sustainable competitive advantage acting as the key mediating mechanism linking these capabilities to cooperative performance. Therefore, the objective of this study is to synthesize existing literature and develop an integrative framework explaining how digital transformation and GCG jointly generate sustainable competitive advantage and improve cooperative performance.

Methods

This study employs a CLR to examine and synthesize scholarly literature on digital transformation, GCG, competitive advantage, and cooperative performance. A CLR is appropriate for studies that aim to develop conceptual clarity, integrate fragmented findings, and critically evaluate theoretical perspectives rather than test hypotheses using primary data (Wright & Michailova, 2023). The review draws on peer-reviewed journal articles published between 2021 and 2025 in the fields of strategic management, digital transformation, governance, and cooperative studies. Literature was searched using major academic databases, including Scopus, Google Scholar, and SINTA-indexed journals. Keywords combined with Boolean operators included digital transformation, GCG OR corporate governance, competitive advantage, cooperative performance, and RBV, applied to titles, abstracts, and author keywords. The selection process followed four stages (identification, screening, eligibility, and final inclusion) where duplicate and irrelevant records were removed and the remaining studies were evaluated using predefined criteria. After this process, 30 peer-reviewed journal articles were selected for critical analysis. The workflow of the literature selection process is illustrated in Figure 1.

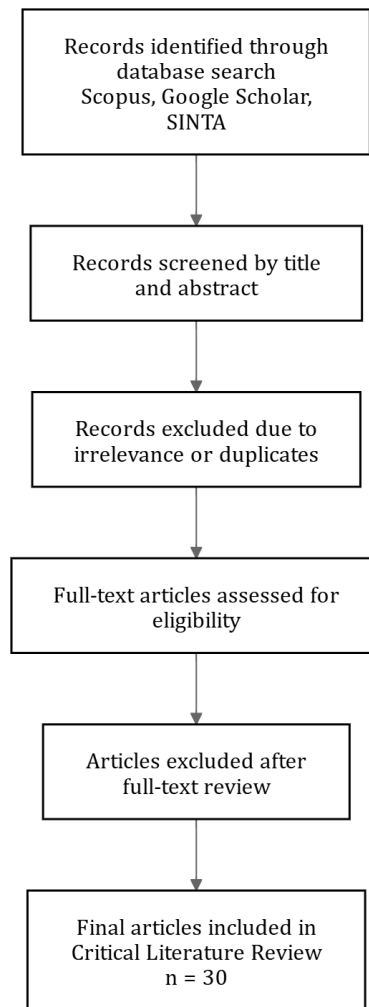


Figure 1. Workflow of the Literature Selection Process

To structure the literature selection process, this study applied the PICOC (Population, Intervention, Comparison, Outcome, and Context) framework to define the scope of relevant studies. Population refers to cooperative organizations and comparable member-based enterprises. Intervention focuses on digital transformation and governance capabilities, particularly GCG. Comparison examines studies that analyze these capabilities individually or in combination. Outcomes include competitive advantage and multidimensional cooperative performance, such as financial results, member satisfaction, service quality, and long-term sustainability. Context refers to the organizational and institutional environments in which cooperatives operate, particularly in emerging economies undergoing digital transformation. The PICOC framework ensured that the selected literature remained aligned with the research objectives and the development of the proposed integrative framework.

To ensure the quality and relevance of the reviewed literature, explicit inclusion and exclusion criteria were applied. The inclusion criteria consisted of peer-reviewed journal articles addressing at least one of the core concepts of digital transformation, governance, competitive advantage, or cooperative performance, and grounded in management or organizational theory, particularly in cooperative or comparable organizational contexts.

The exclusion criteria included non-academic publications such as reports, opinion pieces, and unpublished manuscripts, as well as studies focusing solely on technical or engineering aspects without organizational relevance or lacking clear theoretical contributions. This process ensured that the selected literature was conceptually relevant to the objectives of the review (Sauer & Seuring, 2023).

To ensure methodological transparency, the literature search was conducted using major academic databases, including Scopus, Google Scholar, and SINTA-indexed journals, which provide access to peer-reviewed publications in management, governance, and cooperative studies. The inclusion criteria consisted of peer-reviewed journal articles published between 2021 and 2025 that addressed at least one of the core concepts of digital transformation, governance, competitive advantage, or cooperative performance and were grounded in management or organizational theory. Non-peer-reviewed publications such as reports, conference abstracts, opinion pieces, and unpublished manuscripts, as well as studies focusing solely on technical or engineering aspects without organizational relevance, were excluded. After applying these criteria, 30 journal articles were selected for analysis. These studies formed the analytical basis of this review and were examined to identify recurring themes, conceptual linkages, and theoretical gaps.

The selected articles were analyzed using a thematic and conceptual synthesis approach. Rather than aggregating statistical findings, the analysis focused on identifying recurring concepts, theoretical perspectives, and explanatory mechanisms related to digital transformation, governance, competitive advantage, and cooperative performance (Sauer & Seuring, 2023). Articles were initially classified according to their primary focus, followed by thematic mapping to identify dominant themes, conceptual linkages, and areas of convergence and divergence. The analysis then critically examined underlying assumptions and theoretical limitations to develop an integrative understanding of how digital transformation and GCG shape competitive advantage and cooperative performance.

To enhance rigor and transparency, this study followed established literature review guidelines, with the search strategy, selection criteria, and analytical procedures systematically documented to minimize bias and improve reproducibility (Page et al., 2021). Consistent with the objectives of a CLR, the analysis emphasizes theoretical integration rather than statistical meta-analysis, focusing on clarifying conceptual relationships, identifying theoretical gaps, and synthesizing fragmented perspectives within the institutional context of cooperatives. This interpretive synthesis supports the development of a more coherent theoretical understanding of cooperative performance in the digital era.

Based on the critical synthesis, this study proposes an integrative conceptual model in which digital transformation and GCG function as complementary organizational capabilities. Sustainable competitive advantage is positioned as the central mediating mechanism linking these capabilities to multidimensional cooperative performance, including financial outcomes, member satisfaction, service quality, and long-term sustainability. The proposed conceptual model is presented in Figure 2. The model highlights that performance improvements in cooperatives emerge from the strategic alignment of digital capabilities and governance practices rather than from isolated initiatives.

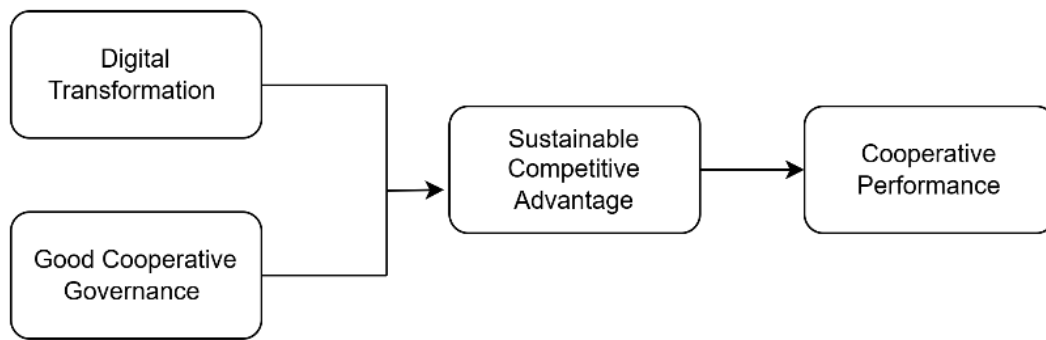


Figure 2. Conceptual Model

Result and Discussions

The characteristics of the selected articles included in the critical review are summarized in Table 1.

Table 1. Literature Overview

Short Reference	Year	Research Focus	Key Findings
Abdurrahman, Gustomo & Prasetyo	2024	Digital transformation and dynamic capabilities	Dynamic capabilities support digital initiatives and innovation, improving performance through TOE factors.
Alvarez Vargas et al.	2023	Statistical language and study quality	Ambiguous causal language influences perceived study quality and policy relevance.
Awad & Martín Rojas	2024	Digital transformation and organisational resilience	Digital transformation enhances learning, innovation, and organisational resilience.
Bamel et al.	2022	Intellectual capital research trends	Intellectual capital significantly influences knowledge management and firm performance.
Battilani, Schröter & Tortia	2022	Cooperatives and SDGs	Cooperatives contribute to sustainable development and social value creation.
Chung, Jo & Lee	2025	Corporate governance and CSR legitimacy	Governance improvements strengthen CSR effectiveness and local legitimacy.
Colombari, Neirotti & Berbegal Mirabent	2024	Socio-technical impacts of digitalization	Digitalization reshapes decision roles and requires organizational redesign and training.
Csedó, Magyari & Zavarkó	2022	Dynamic governance and innovation	Adaptive governance enables strategic change, innovation, and sustainability during crises.
Darweesh & Abuareish	2023	Governance and competitive advantage	Governance mechanisms significantly influence sustainable competitive advantage.

Short Reference	Year	Research Focus	Key Findings
Dawson Jr et al.	2024	Digital platforms in agricultural cooperatives	Inter-cooperative collaboration enables shared digital platforms while preserving member control.
Hanelt et al.	2021	Digital transformation literature review	Provides strategic insights and an organizational perspective on digital transformation.
Iliopoulos & Valentinov	2022	Cooperative governance and member diversity	Member heterogeneity creates governance challenges requiring new theoretical frameworks.
Jamaluddin et al.	2023	Cooperative governance and performance	Governance dimensions such as leadership and board characteristics influence cooperative performance.
Kraus et al.	2021	Digital transformation research overview	Identifies key research clusters and future directions in digital transformation studies.
Lu & Shaharudin	2024	Digital capability and governance	Highlights methodological gaps and inconsistent operationalization in prior studies.
Monson	2024	RBV and governance	Governance mechanisms function as strategic resources for competitive advantage.
Nhu Laursen & Andersen	2023	Network innovation governance	Supplier interaction governance shapes innovation processes in networks.
Nurjannah	2023	GCG and cooperative sustainability	GCG implementation positively influences cooperative sustainability.
Page et al.	2021	PRISMA systematic review guideline	Provides PRISMA reporting standards for transparent literature reviews.
Preluca, Hakelius & Mark-Herbert	2022	Worker cooperative sustainability	Worker cooperatives support sustainability through shared ownership and learning capacity.
Prencipe	2025	Governance accountability and legitimacy	Balancing compliance and legitimacy strengthens sustainable governance.
Rahayu, Day & Alferaih	2022	Digital transformation in SMEs	Digital capabilities enhance SME performance under RBV.
Sauer & Seuring	2023	Systematic literature review methodology	Provides structured steps to improve rigor and transparency in literature reviews.
Saz Gil, Bretos & Díaz Foncea	2021	Cooperatives and social capital	Trust, participation, and shared norms strengthen cooperative performance.
Schweinsberg, Thau & Pillutla	2023	Research problem validity	Highlights the need for precise and transparent research problem

Short Reference	Year	Research Focus	Key Findings
Sukardi et al.	2024	Digital transformation in Indonesian cooperatives	formulation. Digitalization expands market reach and operational efficiency but requires regulatory support.
Sunaryo et al.	2023	GCG implementation in cooperatives	Key governance principles are effectively implemented in studied cooperatives.
Tortia, Valentinov & Iliopoulos	2021	Agricultural cooperative research review	Highlights governance challenges and collective action issues in cooperatives.
Vărzaru & Bocean	2024	Digital technologies and innovation revenue	Digital technologies significantly influence innovation outcomes and revenues.
Verhoef et al.	2021	Digital transformation conceptual framework	Proposes a multidisciplinary framework linking digital technology, strategy, and organizational change.

A review of the 30 studies summarized in Table 1 reveals several patterns in how digital transformation and governance capabilities influence cooperative competitiveness. Many studies highlight digital transformation as a capability that enhances learning, innovation, and operational efficiency, while governance research emphasizes transparency, accountability, and institutional legitimacy as drivers of sustainability. However, few studies integrate these capabilities within a unified framework, particularly in cooperative contexts. Moreover, most empirical research focuses on corporations or SMEs, with limited attention to cooperatives. These patterns indicate fragmented research and underscore the need for an integrative perspective linking digital capabilities, governance mechanisms, competitive advantage, and cooperative performance. Recent studies conceptualize digital transformation as a dynamic organizational capability that reshapes processes, structures, and value creation through the integration of digital technologies (Verhoef et al., 2021; Vial, 2021). In cooperatives, digital transformation has been associated with improvements in operational efficiency, service quality, and member engagement through digital platforms and integrated information systems (Laursen & Andersen, 2023; Rahayu et al., 2022). However, empirical studies indicate that the effectiveness of digital initiatives depends on complementary capabilities, particularly governance alignment and dynamic capabilities such as sensing, seizing, and reconfiguring (Abdurrahman et al., 2024).

The literature also highlights structural constraints faced by cooperatives, including limited digital competencies, financial resources, and organizational inertia, which may limit the impact of digital transformation on performance (Kraus et al., 2021; Lu & Shaharudin, 2024). Consequently, digital transformation should be understood as a socio-technical process requiring technological adoption alongside cultural adaptation, leadership commitment, and institutional alignment. Within the cooperative context, digital strategies must also reflect democratic governance and member participation, distinguishing cooperative digitalization from investor-owned firm models. Collaborative

initiatives, such as shared digital platforms developed through interorganizational cooperation, further illustrate how cooperatives can achieve digital scale while maintaining member control (Dawson Jr et al., 2024).

Recent governance literature conceptualizes GCG as a strategic institutional capability that supports transparency, accountability, and effective decision-making in member-based organizations (Nurjannah, 2023; Preluca et al., 2022). In cooperatives, governance is particularly important because democratic control and collective ownership increase coordination complexity. Empirical studies show that governance quality enhances organizational legitimacy, stakeholder trust, and competitiveness, especially in digitally transforming environments (Darweesh & Abuareish, 2023). Beyond compliance, governance also functions as a strategic capability that shapes how cooperatives prioritize digital investments, manage risks, and respond to environmental uncertainty. However, excessive formalization may hinder innovation, highlighting the need for flexible and adaptive governance structures. When aligned with digital transformation initiatives, governance mechanisms strengthen competitive positioning and long-term sustainability, whereas misalignment may weaken organizational resilience (Colombari et al., 2024).

Contemporary studies define sustainable competitive advantage as an organization's ability to integrate resources and capabilities in ways that are difficult to replicate (Kraus et al., 2021). In cooperatives, competitive advantage emerges from the interaction between technological capabilities, governance quality, and relational assets such as member trust and institutional legitimacy. Digital transformation supports this advantage by enabling service differentiation, improving operational efficiency, and facilitating data-driven decision-making (Rahayu et al., 2022; Verhoef et al., 2021), while governance mechanisms strengthen credibility, strategic coherence, and risk management (Darweesh & Abuareish, 2023). However, the literature shows conceptual ambiguity in measuring competitive advantage in cooperative contexts. Some studies rely on traditional market indicators, while others emphasize social and relational value, leading to inconsistent interpretations (Lu & Shaharudin, 2024). This suggests the need for a cooperative-specific perspective that integrates economic efficiency with social embeddedness. Institutional support and regulatory clarity further influence whether these capabilities translate into scalable advantages, particularly in emerging economies (Sukardi et al., 2024). From a resource-based perspective, sustainable competitive advantage in cooperatives emerges from the complementary interaction between digital and governance capabilities. Digital transformation provides technological resources that support operational efficiency, service innovation, and data-driven decision-making. However, these capabilities alone are insufficient without governance mechanisms that ensure transparency, accountability, and alignment with member interests. When effectively integrated, digital and governance capabilities become organizational resources that are socially embedded, path-dependent, and difficult to imitate. In emerging economies such as Indonesia, the effectiveness of this interaction is further shaped by institutional factors, including regulatory clarity and policy support (Sukardi et al., 2024).

Recent literature conceptualizes cooperative performance as a multidimensional construct encompassing financial outcomes, member satisfaction, service quality, and long-term sustainability (Nurjannah, 2023). This reflects the dual economic and social objectives inherent in cooperative organizations. Studies indicate that performance improvements are

strongest when digital transformation initiatives and governance mechanisms are strategically aligned (Laursen & Andersen, 2023; Rahayu et al., 2022), whereas fragmented digital initiatives or weak governance structures produce inconsistent outcomes. These findings highlight the importance of integrative strategies that align digital capabilities, governance practices, and cooperative values. Cooperative performance should therefore be understood as a dynamic outcome shaped by continuous capability development rather than a static financial endpoint. Governance theory further suggests that managing member heterogeneity through boundary-setting (core versus peripheral activities) can reduce collective action problems and improve the alignment of digital initiatives with member preferences, strengthening long-term performance (Iliopoulos & Valentinov, 2022).

Across the reviewed studies, three recurring patterns emerge: (1) the role of digital capabilities in enabling operational transformation, (2) the moderating role of governance mechanisms, and (3) the emergence of competitive advantage as an integrative outcome of these capabilities. This discussion synthesizes the literature to explain how digital transformation, GCG, and sustainable competitive advantage jointly shape cooperative performance. Rather than treating these constructs as independent factors, this review highlights their interdependent and dynamic relationships, which remain underexplored in prior studies. In this context, digital transformation should be understood as a socio-organizational process in which technologies create strategic value only when embedded in organizational routines, decision-making structures, and governance frameworks (Verhoef et al., 2021; Vial, 2021). In organizations characterized by democratic participation and collective ownership, digital transformation requires not only technological readiness but also institutional alignment and member acceptance, which helps explain variations in performance outcomes despite similar technological adoption. This perspective reframes digital transformation as a capability-building trajectory shaped by organizational learning, path dependency, and stakeholder engagement, rather than as a one-time technological upgrade. Consequently, performance differentials among cooperatives are better explained by differences in institutional integration and adaptive capacity than by technological investment alone.

GCG plays a pivotal role in moderating and enabling the outcomes of digital transformation. Governance mechanisms shape how digital investments are prioritized, implemented, and evaluated, while transparency, accountability, and participatory decision-making enhance trust and reduce resistance to change (Nurjannah, 2023; Preluca et al., 2022). However, a critical tension emerges between the need for formalization to ensure accountability and the risk of excessive bureaucratic control that may hinder innovation in rapidly evolving digital environments. This highlights the importance of adaptive governance models capable of balancing control with flexibility. In this regard, governance functions not only as a control system but also as a strategic coordination mechanism that aligns digital initiatives with cooperative values, mitigates transformation risks, and sustains organizational legitimacy. The ability to recalibrate governance structures in response to technological change becomes a distinctive strategic asset that strengthens long-term resilience. Empirical evidence suggests that building and leveraging dynamic capabilities (sensing, seizing, reconfiguring) substantially increases the likelihood that digital investments will be converted into sustained organizational value, with governance-related capabilities often acting as key mediators (Abdurrahman et al., 2024).

Sustainable competitive advantage is positioned as the central mediating mechanism linking organizational capabilities to cooperative performance. From a resource-based perspective, capabilities such as digital transformation and governance practices do not automatically generate superior performance outcomes. Instead, these capabilities create value when they enable organizations to develop competitive advantages that are valuable, rare, difficult to imitate, and organizationally embedded. Sustainable competitive advantage emerges from the integration of digital capabilities, governance quality, and relational assets such as trust and legitimacy (Kraus et al., 2021). In cooperatives, competitive advantage is not solely market-based but also socially embedded, reflecting long-term member relationships and community engagement.

Nevertheless, inconsistencies remain in how competitive advantage is defined and operationalized, as some studies rely on traditional economic indicators while others emphasize social value creation and member satisfaction (Lu & Shaharudin, 2024), limiting theoretical coherence and comparability. This conceptual fragmentation underscores the need for a more integrative operational framework that captures both economic and socio-institutional dimensions of advantage, particularly in member-based organizations where value creation transcends profit maximization. Action-research in agricultural cooperatives demonstrates that interorganizational collaboration to co-develop shared digital platforms allows cooperatives to scale services and innovate while preserving member governance and control, thereby offering a practical governance-enabled pathway to digital competitiveness (Dawson Jr et al., 2024). The discussion highlights the multidimensional nature of cooperative performance, which includes not only financial outcomes but also member participation, service quality, social impact, and long-term sustainability (Nurjannah, 2023). However, many studies still prioritize short-term financial indicators, often overlooking the strategic roles of governance and digital capabilities. In addition, much of the existing research on digital transformation and governance originates from corporate or SME contexts, with limited consideration of cooperative-specific characteristics such as democratic governance and collective decision-making.

This gap highlights the need for cooperative-centric theoretical models and longitudinal research designs that capture the evolving interaction between digital transformation and governance reforms (Kraus et al., 2021). A socio-technical perspective further suggests that digital transformation requires not only technological adoption but also changes in roles, skills, and governance processes to achieve sustained organizational change (Colombari et al., 2024). Institutional factors such as regulatory clarity and policy support also influence whether digital and governance investments translate into scalable competitive advantages, particularly in emerging economies (Sukardi et al., 2024).

Accordingly, this review conceptualizes digital transformation and GCG as interdependent strategic capabilities whose alignment generates sustainable competitive advantage and improved cooperative performance. By situating these relationships within the institutional characteristics of cooperatives (democratic governance, member ownership, and dual economic–social objectives), this study offers a more context-sensitive explanation of cooperative performance in the digital era.

Taken together, the reviewed literature suggests that cooperative performance in the digital era cannot be explained by technological adoption or governance reforms in isolation. Instead, performance outcomes emerge from the dynamic interaction between

digital capabilities, governance mechanisms, and relational assets embedded within cooperative institutions. Digital transformation provides the technological infrastructure and analytical capacity that enable organizations to innovate and improve efficiency, while governance mechanisms coordinate these technological initiatives with member interests and institutional values. Sustainable competitive advantage therefore functions as the integrative mechanism through which these capabilities are translated into multidimensional cooperative performance. This synthesis highlights that competitive advantage in cooperatives is not purely market-based but also socially embedded, arising from the combination of technological resources, governance routines, and trust-based member relationships that are difficult for competing organizations to replicate.

Therefore, understanding cooperative competitiveness requires an integrative perspective that simultaneously considers digital capability development, governance alignment, and the relational assets embedded within cooperative institutions.

Conclusion

This CLR shows that cooperative performance in the digital era is better explained through an integrated strategic capability perspective rather than isolated technological or governance initiatives. The study proposes a cooperative-centric framework in which digital transformation and GCG operate as interdependent capabilities that generate sustainable competitive advantage. This advantage emerges from the integration of digital capabilities, governance quality, and relational assets such as member trust and social legitimacy, contributing not only to financial outcomes but also to member satisfaction, service quality, and long-term sustainability.

This study offers several theoretical contributions. First, it reconceptualizes sustainable competitive advantage in cooperatives as a dual economic–social construct, extending the RBV beyond investor-owned firm assumptions. Second, it positions digital transformation and GCG as complementary strategic capabilities rather than isolated determinants of performance. Third, it identifies sustainable competitive advantage as a mediating mechanism linking digital and governance capabilities to multidimensional cooperative performance.

This study has several limitations. The CLR approach emphasizes conceptual synthesis rather than statistical meta-analysis, and the review was limited to peer-reviewed articles published between 2021 and 2025 from selected databases. In addition, the proposed framework has not yet been empirically tested, suggesting the need for future research using longitudinal, mixed-method, or cooperative-specific datasets.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper. The authors confirm that this research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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