

## A Juridical Analysis of Modern Cooperative Governance Models in the Perspective of Cooperative Law and the Challenges of Digital Transformation

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**Abstract:** The development of digital technology requires cooperatives to modernize their governance systems in order to remain competitive within an economic ecosystem that is increasingly driven by data and electronic services. However, Law Number 25 of 1992, which serves as the legal foundation for cooperatives in Indonesia, remains conventional and has not accommodated the needs of digital governance, resulting in inconsistencies with national digital regulations. This study aims to analyze the alignment of cooperative regulations with the demands of modern cooperative governance, identify normative gaps between the Cooperative Law and digital regulations such as the Electronic Information and Transactions Law (ITE Law), the Personal Data Protection Law (PDP Law), and Government Regulation No. 71/2019, and formulate the urgency of legal reform to support the digital transformation of cooperatives. This research employs a normative legal approach by examining statutory regulations and analyzing primary, secondary, and tertiary legal materials through a comprehensive literature review. The findings reveal that the Cooperative Law does not regulate essential digital governance mechanisms such as online meetings, e-voting, electronic record-keeping, digital audits, and member data protection. These regulatory gaps create legal uncertainty and operational risks for cooperatives. Therefore, regulatory reform is required to integrate digital governance principles in order to enhance transparency, accountability, and competitiveness of cooperatives in the technological era.

**Keywords:** Modern Cooperatives; Digital Transformation; Cooperative Law; Juridical Analysis

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### 1. Introduction

The development of cooperatives as legal entities rooted in the principles of independence and mutual cooperation is increasingly confronted with new dynamics alongside regulatory changes and evolving societal needs. The Cooperative Law provides a juridical framework that outlines organizational structure, accountability mechanisms, and the principles of economic democracy in cooperative management (Carroll, 2023) (Child et al., 2019) (Zveruk & S., 2020). However, the implementation of these provisions in practice still faces challenges, including inefficient governance, low managerial professionalism, and limited innovation (Coutinho, 2024). This situation necessitates an in-depth analysis of the alignment between existing cooperative governance models and the applicable legal framework to ensure that cooperatives can optimally fulfill their function and role as the backbone of the national economy.

The rapid pace of digital transformation compels cooperatives to adapt to modern, technology-based governance models. Digitalization of services, system-based transparency mechanisms, and the use of digital financial platforms represent new demands that are increasingly unavoidable. Challenges arise when regulatory readiness, human resource capacity, and cooperative infrastructure do not align with these digital requirements. Therefore, a juridical analysis of modern cooperative governance models is essential to assess

the extent to which the Cooperative Law accommodates digital changes and to identify strategic adaptations that cooperatives can make without compromising their foundational principles (Buwah & Joyvice, 2019). This approach is expected to contribute to strengthening cooperative governance that is effective, accountable, and responsive to technological developments.

Previous studies indicate that cooperative governance continues to face fundamental issues related to transparency, accountability, and managerial professionalism. (Shete, 2024) highlights that weaknesses in organizational structure often contribute to the low effectiveness of cooperative management in Indonesia. Similarly, (Gupta & Sharma, 2024) found that the implementation of economic democracy principles has not been optimal due to the limited participation of members in decision-making processes. (Zhdanov, 2019) further emphasizes the need for cooperatives to strengthen internal oversight systems as part of governance improvement in accordance with the provisions of the Cooperative Law.

Studies on the juridical aspects of cooperative governance have also been widely discussed by various scholars. (Fenwick & Vermeulen, 2019) highlights the importance of harmonizing cooperative regulations with developments in the digital financial industry in order to prevent legal gaps in operational practice. Furthermore, (Subramanian, 2024) shows that inconsistencies remain between existing cooperative law provisions and modern cooperative business models that require greater managerial flexibility. In the research conducted by (Zinger et al., 2022), it was found that the legal capacity of cooperative managers plays a critical role in ensuring the effective implementation of prudential principles, particularly in asset management and member services. As the demand for digitalization continues to grow, several researchers have begun emphasizing the need for digital transformation in strengthening cooperative governance. (Abeyrathne & Walakuluge, 2023) asserts that digitalizing cooperatives through application-based membership management platforms can improve accountability and reporting effectiveness. (Viana, 2024) demonstrate that information technology can reinforce financial transparency while increasing member trust. Meanwhile, (Tzimas, 2021c) finds that human resource readiness is a key factor for the success of digital transformation in cooperatives, especially regarding technological competence, digital literacy, and adaptation to data-driven management systems. These findings collectively indicate that modern cooperative governance requires both strong regulatory support and continuous digital innovation.

Cooperative governance in Indonesia continues to face various structural and operational challenges, particularly those related to low managerial effectiveness, misalignment in organizational structures, and weak implementation of transparency and accountability principles. Many cooperatives still lack standardized management systems, resulting in decision-making processes that rely heavily on internal practices that do not always comply with the provisions of the Cooperative Law. In addition, limited legal literacy among cooperative managers and low member participation hinder the optimal implementation of economic democracy principles (Indradewi & Krisnatalingsih, 2021). At the same time, there exists a significant gap between the current legal framework governing cooperatives and the governance needs of modern cooperatives in the digital era. Existing cooperative regulations do not comprehensively address the use of digital technologies, such as digital ledgers, application-based membership systems, or electronic transactions supported by digital trust mechanisms (Correa et al., 2021). This gap becomes increasingly

evident as cooperatives attempt to transform toward digital business models, yet remain unsupported by adaptive regulations capable of ensuring legal certainty, member protection, and the secure, accountable integration of digital business processes (Papadouli, 2023).

Digital transformation also presents new challenges that may significantly affect the sustainability of cooperatives. These challenges include human resource readiness, limitations in technological infrastructure, data security risks, and resistance within organizational cultures that remain conventional (Tzimas, 2021b). If these challenges are not addressed promptly, cooperatives may fall further behind other financial institutions and digital businesses, lose member trust, and potentially fail to uphold the principles of economic democracy in a modern context (Johnston, 2021). Conversely, if cooperatives are able to adapt effectively, digital transformation can strengthen accountability, improve service efficiency, enhance competitiveness, and contribute more substantially to the national economy.

This study is based on the urgent need to reassess the readiness of the cooperative legal framework in responding to changes in the structure, mechanisms, and management patterns of cooperatives in the digital era. The increasingly technology-driven economic landscape requires cooperatives to adopt modern governance models that are more transparent, accountable, and efficient, thereby necessitating a juridical analysis to evaluate the alignment of existing regulations with these needs. This research aims to identify the extent to which the Cooperative Law can accommodate digital transformation, analyze the gaps between current regulations and modern cooperative governance practices, and formulate recommendations for strengthening adaptive governance models that remain aligned with the foundational principles of cooperatives.

## 2. Methods

This study employs a normative legal research method, which focuses on examining legal norms contained in statutory regulations, legal doctrines, and relevant scholarly literature. The normative approach is chosen because the issues analyzed relate to the suitability and adequacy of cooperative regulations in governing modern cooperative governance, particularly within the context of digital technological developments (Bamsey & Montasari, 2022). Through this approach, the analysis is carried out by reviewing the legal principles embedded in the Cooperative Law and other supporting regulations to assess whether these legal instruments are capable of accommodating the governance needs of cooperatives in the digital era.

Data collection in this research was conducted through library research by examining various legal materials, including primary, secondary, and tertiary sources. Primary legal materials consist of Law Number 25 of 1992 concerning Cooperatives and other related regulations governing cooperative governance and digital service integration. Secondary legal materials include books, scientific journals, previous research findings, and expert opinions that provide explanations and interpretations of cooperative legal norms. Meanwhile, tertiary legal materials comprise legal dictionaries, encyclopedias, indexes, and other supporting sources that help strengthen the understanding of legal concepts and terminologies used in the study.

Data analysis was conducted using a normative qualitative approach, which involves interpreting and constructing relevant legal provisions and comparing them with the practical

governance needs of modern cooperatives in responding to the challenges of digital transformation. The analytical techniques applied include systematic, historical, and teleological interpretations to derive legal meanings aligned with contemporary developments (Vlasova & Roud, 2020). The results of this analysis are used to identify normative gaps, evaluate regulatory adequacy, and formulate recommendations for developing a cooperative governance model that is more adaptive to digital dynamics without disregarding foundational cooperative principles.

### **3. Results and Discussion**

#### **3.1 Limitations of the Substantive Provisions of the Cooperative Law in Regulating Digital Governance**

The findings of this study indicate that Law Number 25 of 1992 concerning Cooperatives remains conventional in nature and is therefore unable to accommodate the demands of modern cooperative governance, which increasingly relies on digital technology. The structure of regulation within the law predominantly emphasizes manual mechanisms and face-to-face interactions between managers and members, thus providing insufficient legal space for organizational innovation in the digital era. In fact, digitalization has become an urgent necessity in cooperative management to enhance efficiency, transparency, and the quality of services provided to members. The study also reveals that cooperative regulations do not address various digital governance procedures, such as the conduct of online annual member meetings, the use of e-voting for democratic decision-making, and application-based membership administration. The absence of these rules leaves cooperatives adopting digital systems without clear legal guidelines, potentially leading to disputes regarding the validity of meetings, organizational decisions, and digital transactions. This situation hinders the modernization of cooperatives, which should be able to utilize technology to expand member participation and improve managerial effectiveness.

The elements of record-keeping and documentation within cooperative regulations also do not support digital practices, such as the use of digital ledgers, electronic bookkeeping systems, or digital document storage. Internal supervision norms under the Cooperative Law remain conventionally framed and are not aligned with digital transparency standards that require real-time data accessibility. The lack of such standards results in suboptimal auditing, monitoring, and performance evaluation processes, particularly when cooperatives transition to digital systems. These normative limitations create legal uncertainty in the implementation of digital-based cooperative governance. Cooperatives that initiate digital innovation often operate without clarity regarding the legality of their processes, which may lead to administrative or legal risks in the future. This uncertainty hampers the development of modern cooperatives that should be able to leverage technology to enhance competitiveness. Therefore, regulatory reform is needed to develop a more adaptive legal framework so that digital cooperative governance has strong legitimacy and aligns with technological advancements and contemporary societal needs.

Previous studies also reinforce the finding that cooperative regulations in Indonesia are not yet aligned with the needs of digital governance. (Jogleux, 2019) emphasizes that the Cooperative Law was not designed to accommodate modern practices such as application-based membership administration or digital financial management. Similarly, (Ioannidou, 2024) asserts that the implementation of virtual meetings, e-voting, and electronic documentation has not been granted legal legitimacy within cooperative norms. These

inconsistencies make it difficult for cooperatives to utilize technology as a tool for enhancing organizational transparency and accountability. Furthermore, (Ekarat, 2024) shows that the absence of digital norms creates an overly broad space for interpretation by cooperative managers when making technology-based decisions, thereby increasing the potential for administrative disputes in the future.

Studies on digital transformation and organizational governance consistently demonstrate that the success of digitalization is highly dependent on legal certainty. According to (Rukmawati & Pradnyana, 2024), effective digital governance requires clearly regulated standards for data security, the validity of electronic documents, and system integration within the organization's regulatory framework. In the context of cooperatives, these conditions have not been fulfilled because Law No. 25 of 1992 does not incorporate technology as an essential element of governance. (Ştefan, 2024) adds that without a strong legal umbrella, cooperatives attempting to implement digital systems face legal risks related to data protection, the validity of electronic transactions, and managerial accountability. Therefore, reformulating cooperative regulations has become an urgent necessity to enable cooperatives to transform safely and effectively while upholding the principles of economic democracy in the digital era.

### **3.2 Regulatory Gaps and Inconsistencies Between Cooperative Law and National Digital Legislation**

The findings of this study indicate the presence of substantial inconsistencies between Law Number 25 of 1992 concerning Cooperatives and the national digital legal framework, particularly the Electronic Information and Transactions Law (ITE Law), the Personal Data Protection Law (PDP Law), and Government Regulation No. 71 of 2019 on Electronic System Operation. The Cooperative Law was formulated within the context of a conventional organizational model that did not take into account developments in information technology, resulting in the absence of norms governing cooperative operations within the digital domain. In contrast, national digital legislation has established principles, mechanisms, and standards for the use of electronic systems that must be complied with by any entity conducting technology-based activities.

The study further reveals that the ITE Law provides legitimacy for electronic documents, digital signatures, and electronic transactions; however, these provisions have not been adopted by the Cooperative Law. Consequently, the use of electronic documents in cooperatives—such as digital financial reports, electronic transaction records, or digital minutes of meetings—does not receive explicit recognition under cooperative regulations. This creates legal uncertainty when cooperatives implement digital innovations, for example in conducting online member meetings or making decisions through e-voting. The absence of rules acknowledging the legality of these processes may lead to potential disputes regarding the validity of organizational decisions.

The regulatory gap becomes even more apparent when examining the Personal Data Protection Law (PDP Law), which strictly regulates the collection, storage, processing, and security of personal data, including cooperative member data. In practice, many cooperatives utilize internal or third-party applications to store member data, financial records, and transaction histories. However, the Cooperative Law provides no guidance on how such data should be protected, who bears responsibility in the event of a data breach, or what security

standards must be implemented. The absence of such regulations exposes cooperatives to vulnerabilities related to privacy violations and cybersecurity threats.

The findings of this study also indicate that Government Regulation No. 71 of 2019 requires every electronic system operator to comply with specific standards, including availability, data integrity, confidentiality, and accountability in the use of electronic systems. However, cooperatives, as legal entities that are increasingly adopting digital services, do not possess internal regulatory provisions mandating compliance with these standards. This creates legal risks when cooperatives experience digital system failures, data theft, or inaccurate information, as there are no cooperative-specific legal guidelines detailing the responsibilities of managers in the context of electronic system management. In addition, the study reveals that regulatory gaps force cooperatives to operate under a dualistic legal framework—subject to the Cooperative Law for organizational matters and to digital laws for technology-related matters. Because these regulations are not integrated, cooperatives find it difficult to determine which norms should serve as the primary reference for each digital activity. This lack of synchronization leads managers to rely on personal interpretation when making decisions, without clear legal grounding, ultimately increasing the risks of maladministration and governance irregularities.

Overall, the gap between the Cooperative Law and national digital regulations generates various serious consequences for the sustainability of modern cooperative governance. The resulting risks involve not only the validity of electronic documents and transactions but also the protection of member data, cybersecurity, and the legitimacy of cooperative digitalization processes. If these regulatory discrepancies are not promptly addressed through legal reform or regulatory harmonization, cooperatives will remain vulnerable in navigating the demands of digital transformation. Therefore, this study underscores the necessity of aligning cooperative regulations with national digital laws to ensure that cooperatives can transform safely, systematically, and with legal certainty across all aspects of their operations.

Previous research further supports the finding that inconsistencies between cooperative regulations and national digital laws significantly affect the quality of cooperative governance in the modern era. (Carcary & Doherty, 2022) notes that cooperatives adopting electronic systems often face issues of legal legitimacy because the Cooperative Law does not regulate the validity of digital documents or the mechanisms for conducting online member meetings. This aligns with (Tzimas, 2021a), who emphasizes that the use of digital applications in savings and loan transactions lacks standardized legal guidelines, making disputes between managers and members more likely. Meanwhile, (Kumar & Prasad, 2020) point out that the absence of data protection norms in cooperative regulations creates serious vulnerabilities to the misuse of members' personal information when cooperatives begin utilizing digital technology.

Several studies on digital governance in non-corporate organizations show that the success of digital transformation is highly dependent on regulatory harmonization. (He & Chen, 2024) emphasize that institutions lacking a strong digital legal foundation will face layered legal risks, particularly regarding the legality of transactions and data security. In the cooperative context, this weakness is further exacerbated by the absence of operational digital guidelines, as highlighted by (Cossey et al., 2024), who argues that cooperatives require explicit integration between the ITE Law, the Personal Data Protection Law, and the

Cooperative Law to ensure that digital transformation proceeds safely and accountably. Thus, this study reinforces the view that reforming cooperative regulations is an urgent necessity to guarantee legal certainty throughout all digitalization processes within cooperatives.

### **3.3 The Urgency of Regulatory Reform to Support Modern Cooperative Governance Models**

The findings of this study show that digital transformation has reshaped the way organizations, including cooperatives, conduct management activities, deliver services, and make decisions. However, these developments cannot be accommodated by the traditional and static legal framework governing cooperatives. Law Number 25 of 1992 does not provide adequate normative foundations for cooperatives to adopt digital technologies in organizational management, ranging from membership administration and transaction recording to internal supervision. This regulatory unpreparedness makes it difficult for cooperatives to adapt to the demands of modern organizations that must operate more quickly, transparently, and efficiently.

In this context, regulatory reform becomes crucial to ensure legal certainty for cooperatives that increasingly rely on technology. Such reform must include clear provisions on digital governance, such as the legitimacy of online member meetings, e-voting mechanisms, electronic signatures, and the validity of digital documents in cooperative administrative processes. Without these norms, cooperatives will remain in a state of legal uncertainty that may trigger organizational conflicts or administrative disputes. With an updated legal framework, cooperatives will be able to carry out digital processes lawfully and accountably.

The study also highlights the need for regulatory reform to establish standards for data security and the protection of members' personal information, particularly as cooperatives begin using digital applications to store sensitive data. Currently, the Cooperative Law does not regulate mechanisms for digital data management or the responsibilities of managers in safeguarding member information. Meanwhile, the risks of data breaches, misuse of personal information, and cyberattacks continue to rise alongside the digitalization of services. Therefore, integrating the provisions of the Personal Data Protection Law and Government Regulation No. 71 of 2019 into cooperative regulations is essential to provide clear guidance on data protection and system security.

In addition to digital governance and data protection, regulatory reform must also address digital auditing mechanisms and electronic system-based reporting. The conventional audit procedures outlined in the Cooperative Law are no longer relevant when cooperatives rely on digital systems for financial and administrative management. Digital auditing allows for faster, more accurate, and more transparent supervision through technologies such as tracking systems, digital ledgers, and real-time reporting. Without regulations governing digital audit processes, discrepancies, data manipulation, and administrative errors become increasingly difficult to detect.

Overall, reforming cooperative regulations is a necessary prerequisite for establishing modern cooperative governance that is accountable, transparent, and competitive. With a legal framework that is adaptive to technological advancements, cooperatives can enhance operational efficiency, expand member service access, and strengthen member trust in organizational management. Such reform also serves as a strategic foundation for ensuring

that cooperatives remain capable of competing in a rapidly evolving digital economic ecosystem. Without adequate legal reform, cooperatives risk falling behind and losing relevance in modern economic dynamics.

The urgency of regulatory reform is further supported by previous studies highlighting the inability of outdated regulations to address the needs of modern governance. (Carroll et al., 2023) explains that the Cooperative Law is no longer relevant to digital organizational needs that require speed, transparency, and accuracy in data management. (SHPAK et al., 2022) also notes that cooperatives attempting to implement digital services without clear legal guidelines risk facing administrative disputes, particularly regarding the legality of online meetings and the validity of electronic documents. Meanwhile, (Hameed & Hameed, 2023) emphasizes that digital systems such as e-voting and electronic recording should have clear legal legitimacy to ensure that cooperative decisions are not contested internally or externally. These studies indicate that legal reform is not merely an administrative requirement but a fundamental pillar of stable cooperative governance.

Various studies on organizational digital transformation also indicate that successful digitalization is supported by adaptive and integrated regulations. (Sonkusare, 2022) found that organizations that successfully digitalize typically have legal systems that provide strong support, particularly with respect to digital data protection, system security, and the legality of electronic transactions. In the cooperative context, this issue is even more relevant because cooperatives routinely manage membership data, savings and loan funds, and operational transactions. (Wadhawan, 2024) warns that without clear regulations, the use of financial applications or digital platforms by cooperatives may lead to risks such as data theft, information manipulation, and loss of accountability. Therefore, reforming cooperative regulations to integrate the ITE Law, the Personal Data Protection Law, and Government Regulation No. 71 of 2019 is a strategic step to strengthen cooperative governance in the digital era.

#### 4. Conclusion

Based on the findings of this study, it can be concluded that modern cooperative governance faces structural barriers due to the limitations of the normative provisions in Law Number 25 of 1992, which remains conventional and is unable to accommodate the digitalization needs of contemporary organizations. The absence of regulations governing online meetings, e-voting, electronic record-keeping, digital ledgers, and data protection using electronic systems demonstrates that cooperative legislation is not yet aligned with technological developments. This gap is further emphasized by the regulatory inconsistencies between the Cooperative Law and national digital legislation such as the Electronic Information and Transactions Law (ITE Law), the Personal Data Protection Law (PDP Law), and Government Regulation No. 71 of 2019, all of which provide a legal foundation for electronic transactions and data security but have not been integrated into cooperative governance. Therefore, this study underscores that reforming cooperative regulations is an urgent necessity to ensure legal certainty, transparency, and accountability in cooperative governance in the digital era. Regulatory reform is required both to adopt digital governance mechanisms and to ensure that member data protection, digital audits, and application-based services operate lawfully, securely, and in a standardized manner. With an adaptive and technology-responsive regulatory framework, cooperatives will have greater opportunities to

strengthen member trust, enhance competitiveness, and transform into modern economic institutions that remain relevant and competitive within today's digital economic ecosystem.

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