Al-Risalah
Forum Kajian Hukum dan Sosial Kemasyarakatan
Vol. 24, No. 2, December 2024 (pp. 68-86)

p-ISSN: 1412-436X
e-ISSN: 2540-9522

DIGITAL TRANSFORMATION OF COOPERATIVE LEGAL ENTITIES IN INDONESIA

Didi Sukardi*, Jefik Zulfikar Hafizd, Afif Muamar
Universitas Islam Negeri Siber Syekh Nurjati Cirebon
Jl. Perjuangan By Pass Sunyaragi, Karyamulya, Kesambi, Cirebon City, West Java, Indonesia
email: didisukardimubarrak@uinssc.ac.id

Fatin Hamamah
University 17 August 1945 Cirebon
Jl. Perjuangan No.17, Karyamulya, Kesambi, Cirebon City, West Java, Indonesia

Esti Royani
University 17 August 1945 Samarinda
Jl. Ir. H. Juanda No. 80, Air Hitam, Samarinda Ulu, Samarinda City, East Kalimantan, Indonesia

Bobur Sobirov
Samarkand Branch of Tashkent State University of Economics
Proffesorlar Street 51, 140147, Samarkand City, Uzbekistan

DOI: 10.30631/alrisalah.v24i2.1563
Submitted: June 12, 2024; Revised: September 15, 2024; Accepted: December 30, 2024

Abstract: This study examines the transformation of cooperative legal entities from conventional to digital models in response to global technological advancements. The study aims to analyze the strengthening of cooperatives as pillars of the Indonesian economy, the legal framework for digital transformation, and the practical implementation of digital transformation in Indonesian cooperatives. The findings reveal that digital transformation is essential for cooperatives to expand their market share and enhance operational efficiency through tools such as websites, social media, marketplaces, and online advertising platforms. Existing legal frameworks support this transition, enabling cooperatives to utilize digital technology for administration, marketing, online sales, data analysis, and virtual meetings. However, regulatory refinements are needed to address emerging data privacy and consumer protection issues. The study also highlights the G20 Forum as a strategic opportunity for Indonesian cooperatives to align with international standards and expand their reach globally. By leveraging digital technology and global partnerships, cooperatives can strengthen their competitiveness and contribute to sustainable and inclusive economic growth.

Keywords: Digital Transformation, Legal Entities, Cooperatives, G20 Forum, Legal Framework.

Abstrak: Penelitian ini mengkaji transformasi badan hukum koperasi dari model konvensional ke model digital sebagai respons terhadap kemajuan teknologi global. Penelitian ini bertujuan untuk menganalisis penguatan koperasi sebagai pilar ekonomi Indonesia, kerangka hukum untuk transformasi digital, dan implementasi praktis transformasi digital pada koperasi di Indonesia. Hasil penelitian menunjukkan bahwa transformasi digital sangat penting bagi koperasi untuk memperluas pangsa pasar dan meningkatkan efisiensi operasional melalui alat seperti situs web, media sosial, marketplace, dan platform iklan daring. Kerangka hukum yang ada mendukung transisi ini, memungkinkan koperasi memanfaatkan teknologi digital untuk administrasi, pemasaran, penjualan daring, analisis data, dan pertemuan virtual. Namun, perbaikan regulasi diperlukan untuk menangani isu-isu yang muncul, seperti privasi data dan perlindungan konsumen. Penelitian ini juga menyoroti Forum G20 sebagai peluang strategis bagi koperasi Indonesia untuk menyesuaikan diri dengan standar internasional dan memperluas jangkauan mereka secara global. Dengan memanfaatkan teknologi digital dan kemitraan global, koperasi dapat memperkuat daya saing mereka dan berkontribusi pada pertumbuhan ekonomi yang berkelanjutan dan inklusif.

Kata Kunci: Transformasi Digital, Badan Hukum, Koperasi, Forum G20, Kerangka Hukum.

Introduction

Cooperatives are the oldest business model in the world. Although they are ancient, they are not well-developed in many places. Because they have existed for so long, cooperatives should be able to support a country's economy.[1]

Nowadays, many cooperatives in developed countries, such as the European Union (EU) and the United States, have successfully developed into large companies. These cooperatives can operate in various sectors, including agriculture,[2] manufacturing,[3] and banking,[4] allowing them to compete effectively with capitalist companies. However, in several countries, including Indonesia, cooperatives face challenges

[1] Lawrence Musiitwa Kyazze, Isaac Nabeta Nkote, and Juliet Wakaisuka-Isingoma, "Cooperative Governance and Social Performance of Cooperative Societies," *Cogent Business & Management* 4, no. 1 (2017): 1284391.

[2] Yesim Kustepeli et al., "The Role of Agricultural Development Cooperatives in Establishing Social Capital," *The Annals of Regional Science* 70, no. 3 (2023): 681–704; Wini Fetia Wardhiani et al., "The Effect of Performance on the Sustainability of Coffee Farmers' Cooperatives in the Industrial Revolution 4.0 in West Java Indonesia," *Sustainability* 15, no. 6 (2023): 4901.

[3] Mochammad Sulistyono, Yusuf Hidayat, and Muhammad Riduansyah Syafari, "Strategy for Empowerment of Micro, Small and Medium Enterprises (MSMEs) Food Sector by the Office of Cooperatives, Small/Micro Businesses and Industry of Balangan Regency," *Journal of Development Studies* 1, no. 1 (2022): 39–48; Mariarosaria Agostino et al., "Do Cooperative Banks Matter for New Business Creation? Evidence on Italian Manufacturing Industry," *Annals of Public and Cooperative Economics* 93, no. 3 (2022): 637–75.

[4] Daniela Venanzi and Paolo Matteucci, "The Largest Cooperative Banks in Continental Europe: A Sustainable Model of Banking," *International Journal of Sustainable Development & World Ecology* 29, no. 1 (2022): 84–97; Hemantha Kumara MG and Sudhindra Bhat, "A Systematic Literature Review and Research Objective of Treasury Management of Urban Cooperative Banks," *International Journal of Economics, Business and Management Studies (EBMS)* 9, no. 12 (2022): 42–55.

adapting to new business models and expanding their market reach.[5]

Initially, the concept of cooperatives in Indonesia was introduced by W.PD. Wolff van Westerrode, a resident assistant in Purwokerto, in 1898. This step was taken to overcome debt among poor farming communities. The agricultural credit introduced adopts the Raiffeisen model studied in the Netherlands. Entering the 20th century, people's movements also launched socio-economic reform programs through cooperatives. In 1908, the "Budi Utomo" association founded by R. Sutomo tried to promote Household Cooperatives. However, the results were less than satisfactory because most of the cooperative principles at that time were poorly understood, and information about cooperatives was still limited. The Islamic Trade Union, which was formed in 1913, attempted to spread and socialize the idea of cooperatives to the community so that cooperative shops were established. However, this effort was unsuccessful quickly due to a lack of understanding of cooperative principles, information, and guidance. Even after Indonesia's independence, the development of cooperatives still experienced unsatisfactory dynamics. In 1927 and 1933, the Netherlands issued regulations on cooperatives. The Cooperative Department was formed in 1930, but cooperative institutions faced obstacles in improving their performance. After Indonesian independence, several regulations regarding cooperatives were issued, such as in 1958 (UU Number 78 of 1958) and 1959 (Government Regulation Number 60 of 1959). Until 1967, 64,000 cooperatives were established, both legal and non-legal entities.[6]

The form of cooperative economic activity is under the characteristics of the Indonesian nation, but its growth does not provide joy. Even though cooperatives are considered a pillar of the national economy, in reality, cooperatives have experienced setbacks in the development process. The Indonesian government has made various efforts to stimulate the growth of cooperatives in the community. Even though various administrative facilities have been provided to individuals interested in establishing and developing cooperatives in their environment, these economic entities have not shown development in line with the government's expectations.[7] Cooperatives are institutions that are expected to be able to compete with corporations, which tend to use a capitalist system.

Cooperatives must have a business model relevant to current economic conditions to survive and face future challenges.[8] Current technological developments provide many new business models, all of which cannot be separated from the use of digital technology. Technology is believed to influence cooperative performance greatly.[9]

---

[5] Didi Sukardi, *Badan Hukum Koperasi Dalam Konteks Keadilan Bermartabat*, *CV. Zenius Publisher* (Cirebon: CV. Zenius Publisher, 2022).

[6] Ahmad Dimyati, *Islam Dan Koperasi* (Jakarta: Koperasi Jasa Informasi, 1989).

[7] Rosnani Siregar, "Peranan Koperasi Dalam Meningkatkan Kesejahteraan Ekonomi Masyarakat Ditinjau Dari Hukum Ekonomi Islam," *At-Tijaroh: Jurnal Ilmu Manajemen Dan Bisnis Islam* 1, no. 1 (2015): 220–43.

[8] Lukmanul Hakim et al., "Analisa Keberlanjutan Bmt Dalam Pademi Covid 19 Berbasis Bisnis Model Dan Pemilihan Pelayanan Anggota Pembiayaan (Selective Lending)," *El-Ecosy: Jurnal Ekonomi Dan Keuangan Islam* 1, no. 1 (2021): 17–33.

[9] Dedi Suhendro, "Pengaruh Kualitas Sistem, Kualitas Informasi, Kualitas Pelayanan Dan Ekspektasi Kinerja Terhadap Kepuasan Pengguna Dalam Penerapan Sistem Teknologi Informasi Pada Koperasi Di Kota Pematangsiantar," *Jurasik (Jurnal Riset Sistem Informasi Dan Teknik Informatika)* 1, no. 1 (2017): 33–40; Adriyanti Agustina Putri and Nadia Fathurrahmi Lawita, "Pengaruh Kepemilikan Institusional Dan Kepemilikan Manajerial Terhadap Penghindaran Pajak," *Jurnal Akuntansi Dan Ekonomika* 9, no. 1 (2019): 68–75; Ya-na Wang, Lifu

Previous studies have shown that cooperatives in developed countries have successfully utilized digital technology to enhance their competitiveness and operational efficiency.[10] However, in Indonesia, the adoption of digital technology in cooperatives remains limited, primarily due to low digital literacy among members and regulations that do not fully support the digital transformation of cooperatives.[11] This highlights a research gap that needs to be addressed regarding the implementation of digital transformation in cooperative legal entities in Indonesia.

The importance of digital transformation forces business organizations that want to stay ahead of the competition to adapt quickly and their business models digitally. This condition also applies to cooperatives as business organizations that cannot be separated from socio-economic values. Currently, those who can survive and even develop rapidly are those who can keep up with technological developments. Adopting digital transformation pillars can be driven significantly by innovations in the Internet of Things, robotics, artificial intelligence, blockchain, nanotechnology, cloud processing, and big data.[12]

The government is the main external stakeholder in cooperatives. Relations and solidarity between cooperative members can be built with the role of government.[13] The government can seriously encourage cooperative businesses through its regulations.[14] Society as individuals, groups, and legal entities will undoubtedly need regulations that accommodate digital technology in economic activities. Legal certainty and regulations that accommodate all financial activities are required to develop a business and keep it orderly.

Cooperatives have existed in Indonesia for a long time. They are considered to have a business model that aligns with the culture of Indonesian society, uniting the spirit of togetherness and cooperation. However, Indonesia's economy is still developing and remains highly vulnerable to crises. Indonesia needs effective collaboration with various countries to strengthen its economic foundation, build its national economy, and maintain global stability. International forums in multiple fields, particularly economics, offer Indonesian citizens broader business growth opportunities.

In line with Indonesia's role in the G20 Presidency in 2022, a significant opportunity arises to encourage the digital transformation of cooperatives. This presidency not only opens up avenues for international collaboration but also serves as a strategic momentum for Indonesia to enhance the competitiveness of cooperatives through digitalization integrated with the existing legal framework.

Jin, and Hanping Mao, "Farmer Cooperatives' Intention to Adopt Agricultural Information Technology—Mediating Effects of Attitude," *Information Systems Frontiers* 21 (2019): 565–80.

10 Agostino et al., "Do Cooperative Banks Matter for New Business Creation? Evidence on Italian Manufacturing Industry."

11 Ratih Purbasari and Samún Jaja Raharja, "Digital Transformation In Cooperative Business Processes: A Study On Cooperatives In The Greater Bandung Area," *Inovbiz: Jurnal Inovasi Bisnis* 10, no. 1 (2022): 16–22.

12 Fernando Moreira, Maria João Ferreira, and Isabel Seruca, "Enterprise 4.0–the Emerging Digital Transformed Enterprise?," *Procedia Computer Science* 138 (2018): 525–32; Purbasari and Raharja, "Digital Transformation In Cooperative Business Processes: A Study On Cooperatives In The Greater Bandung Area."

13 Indrawati Yuhertiana et al., "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence," *Sustainability* 14, no. 10 (2022): 5839.

14 Aijuan Chen and Steffanie Scott, "Rural Development Strategies and Government Roles in the Development of Farmers' Cooperatives in China," *Journal of Agriculture, Food Systems, and Community Development* 4, no. 4 (2014): 35–55.

Indonesia is one of the countries that is part of the G20 group. The G20 is a forum that brings together countries with developed and developing economies to jointly face crises, especially in Asia, Russia, and Latin America. The formation of the G20 in 1999 aims to achieve stable, sustainable, balanced, and inclusive global growth. Initially, the G20 was a meeting between the Minister of Finance and the Governor of the Central Bank. However, since 2008, the G20 has hosted meetings of Heads of State at its annual Summit, with development sector discussions starting in 2010. Since then, the G20 has consisted of the Financial Track and the Sherpa Track. Interestingly, the G20 Sherpa Summit is named after the Nepalese nomadic people who serve as guides. This meeting leads the way to the summit by conducting negotiations and building consensus among leaders.[15]

The implementation of cooperative legal entities worldwide is still conventional. Given the significant changes in the world, cooperatives need to be directed towards digital transformation. The impact of the COVID-19 pandemic has changed many things; digital transformation has accelerated due to the pandemic. Cooperatives need to model harmony in the development of science and technology. The legal system used by the world community strongly supports cooperatives, including their development. Cooperative businesses also need to pay attention to international politics.

This article examines how digital transformation can enhance the role of cooperatives as a pillar of Indonesia's economy while addressing the legal implications for cooperative legal entities. The study focuses on three key aspects: strengthening the economic role of cooperatives, analyzing the legal framework supporting digital transformation, and evaluating its implementation in Indonesian cooperatives. This research contributes a novel perspective by exploring the intersection of technology and cooperative governance, a topic that has received limited attention in previous studies. Positioned within the strategic context of Indonesia's G20 Presidency, this study highlights digitalization's critical role in enhancing cooperatives' competitiveness, inclusivity, and sustainability. The findings are expected to inform policymaking and offer practical guidance for stakeholders seeking to integrate digital solutions into cooperative operations.

Method

This research on the Digital Transformation of Cooperative Legal Entities is a qualitative descriptive study that adopts a statutory, conceptual, and analytical approach. Within the framework of this research, data analysis was carried out from various relevant sources to provide a comprehensive understanding of the topic. Specifically, this study employs normative legal research methods, which involve analyzing data derived from binding regulations in Indonesia, particularly in the realms of economics, technology, corporations, cooperatives, investment, bankruptcy, business, and electronic transactions.

Primary research data was obtained from legal regulations with binding force in Indonesia, covering aspects relevant to the research focus. Meanwhile, secondary legal materials, such as books, journals, news articles, and other written works, supported this research. These materials were analyzed systematically by compiling, sorting, and categorizing them into patterns and themes to derive meaningful insights.[16]

[15] Bank Indonesia, "G20 Presidency of Indonesia" Bank Indonesia, 2022.

[16] John W Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*

Additionally, this research incorporates a comparative legal approach to broaden the perspective on the digital transformation of cooperative legal entities. By examining similar cases and practices in other jurisdictions, this approach allows for a deeper understanding of how different legal systems address the integration of digital technologies within cooperative frameworks. This analytical and comparative dimension enriches the findings and provides a well-rounded evaluation of the legal implications of digital transformation.

Basic Concepts Of Cooperative Business

A cooperative is a legal entity founded by individuals or cooperative legal entities. In this conceptualization, wealth is separated between members, which becomes capital for business activities under cooperative values and principles.[17] Cooperatives emerged to meet collective aspirations and needs in various economic, social, and cultural aspects. The main focus of establishing a cooperative is to increase community welfare, especially for the cooperative members. As legal entities, cooperatives are integral to the democratic and national economic framework, as the relevant law stipulates.[18] Cooperative activities are carried out democratically, from selecting cooperative management and planning work programs to monitoring and evaluation.

Cooperative business is carried out through the hands of its members as stakeholders. Every decision in a cooperative is determined jointly by all members, who are also stakeholders. Cooperative business is a manifestation of stakeholder theory, according to Freeman (1984), from a stakeholder perspective, meaning that business can be understood as a set of relationships between groups that have a stake in the activities that make up the industry.[19]

The government has a relationship with cooperatives as an external stakeholder. The government has a vital role in cooperative survival and long-term sustainability. The government's role in helping revitalize cooperatives aligns with stakeholder theory.[20] Without the commitment of all stakeholders, any policy will fail.[21] The development of cooperatives requires commitment from the government as a policy maker or commitment from the management or cooperative members.[22] Much research has supported stakeholder theory linked to social, ethical, management strategies, and other challenges.[23]

(Thousand Oaks, California: SAGE Publications, 2017).

[17]Muhammad, Pauzi, et al. "Actualizing Islamic Economic Law in the Digital Era: A Study of the Application of Khiyar al-Majlis in Electronic Contracts." JURIS (Jurnal Ilmiah Syariah) 23.2 (2024): 205-214.

[18] Law, "Law Number 17 of 2012 Concerning Cooperatives" (The Indonesian Government, 2012).

[19] James A Stieb, "Assessing Freeman's Stakeholder Theory," *Journal of Business Ethics* 87 (2009): 401–14.

[20] Chen and Scott, "Rural Development Strategies and Government Roles in the Development of Farmers' Cooperatives in China."

[21] Indrawati Yuhertiana, Corry Natasha Patrioty, and Nafsiah Mohamed, "The Moderating Effect of Organizational Changes on the Influence of Ethical Decision Making on Public Sector Internal Auditor Performance.," *Contemporary Economics* 13, no. 4 (2019): 480–94.

[22]Maulana, Muhammad, et al. "Islamic Banking Services for Communities and Families in Aceh Province Post Closure Of Conventional Banks: A Comprehensive Review." El-Usrah: Jurnal Hukum Keluarga 7.2 (2024).

[23] Francisca Castilla-Polo and M Isabel Sánchez-Hernández, "Cooperatives and Sustainable Development: A Multilevel Approach Based on Intangible Assets," *Sustainability* 12, no. 10 (2020): 4099; Kukuh Lukiyanto and Maranatha Wijayaningtyas, "Gotong Royong as Social Capital to Overcome Micro and Small Enterprises' Capital Difficulties," *Heliyon* 6, no. 9 (2020): e04879; Narkas V Akhmadieva, "Mismanagement and Misappropriation of Collective-Cooperative Property in the Kolkhozes of Bashkiria between the

The principle of legal regulation of cooperative bodies represents the values of Pancasila (cooperation). The values that underlie cooperative activities are kinship, self-reliance, equality, democracy, self-responsibility, solidarity, honesty, justice, reality, and social responsibility.[24] The principles of cooperatives in Indonesia, as regulated in Law Number 17 of 2012, involve seven key aspects:

1. *Voluntary and open membership*

Cooperatives base their membership on voluntary and open principles. Everyone is free to join, and membership is open to anyone without discrimination.

2. *Democratic oversight*

This principle confirms that every cooperative member has equal rights to participate in decision-making. Democratic oversight ensures each member's active involvement and right to voice their opinion.

3. *Member Participation*

Cooperative members are invited to participate actively in activities and decision-making, equalizing involvement in organizational processes.

4. *Autonomy and independence*

This principle emphasizes that cooperatives must operate autonomously and independently, maintaining independence in management and decision-making without unwanted external interference.

5. *Education and training*

Cooperatives must provide education and training programs to their members. These programs aim to increase members' understanding and skills in managing cooperatives effectively.

6. *Community Concern*

Cooperatives are expected to have a social orientation and care about the needs and welfare of the surrounding community, creating a positive impact in their communities.

7. *Cooperation between cooperatives*

This principle emphasizes the importance of cooperation and solidarity between cooperatives. This collaboration encourages joint economic growth and mutual support among existing cooperatives.[25]

Cooperatives operate based on principles that form the basis of their operations. The principle of voluntarism is the basis for openness in cooperative organizational structures, and this is reflected in principles such as volunteerism, openness, elimination of discrimination, and responsibility. Cooperative administrators responsible for daily management are elected based on the wishes and decisions of the members. Cooperative members play the central role and have the highest power in decision-making. Fair capital contribution from members is the main principle, while capital supervision is carried out democratically, and part of the capital becomes the collective property of the cooperative.[26] Cooperatives are recognized as autonomous, self-supporting entities and supervised by members.

In situations where cooperatives enter into partnerships or raise capital from external sources, including governments, efforts are made to ensure democratic oversight by members and to maintain the cooperative's autonomy. Providing education and training is another principle cooperatives implement to increase the understanding of members, supervisors, administrators, and employees.

Late 1960s and the First Half of the 1980s as a Systemic Phenomenon," *Oriental Studies* 14, no. 1 (2021): 479–487, https://kigiran.elpub.ru/jour/issue/viewFile/94/85?embed=1#page=60.

[24] Sukardi, *Badan Hukum Koperasi Dalam Konteks Keadilan Bermartabat*.

[25] Law, "Law Number 17 of 2012 Concerning Cooperatives."

[26] Bashori, Akmal. "Paradigma baru fiqih perdagangan bebas: Dialektika ulum al-din dan hukum negara." Ijtihad: Jurnal Wacana Hukum Islam dan Kemanusiaan 18.1 (2018): 81-98.

Apart from that, cooperatives are also responsible for providing information to the public regarding the identity, activities, and benefits produced by cooperatives. In sustainable community development, cooperatives adopt policies determined by meeting members. Cooperatives are committed to promoting sustainable environmental and community growth, reflecting policies that cooperative members have approved.

Cooperative Legal Entities in Indonesia

According to Mohammad Hatta, Indonesia's first vice president, cooperatives can be defined as joint efforts to improve economic standards of living based on the principle of cooperation. The word "cooperative" itself comes from a combination of the words "Co," which means together, and "Operation," which refers to cooperation.[27] Legally, a cooperative is defined as a business entity consisting of individuals or cooperative legal entities whose operational activities are based on cooperative principles and follow the people's economic movement based on the principle of kinship.[28]

This definition of cooperatives includes several elements, namely that cooperatives are not only social organizations but also business entities. Founders or owners of cooperatives can be individuals or cooperative legal entities. Cooperation in cooperatives is based on cooperative and family principles, emphasizing the spirit of collaboration. In addition, cooperatives are considered part of the people's economic movement, creating a strong foundation for joint efforts to improve economic prosperity.[29]

In Indonesia, cooperatives are regulated and organized based on the principles of Pancasila, the 1945 Constitution, and the principle of kinship. The main aim of cooperatives is to advance the welfare of their members, in particular, and society in general and to develop the national economic system to create an advanced, just, and prosperous society. These principles reflect the cooperative's commitment to being a positive force in forming an inclusive and just economic structure, in line with the fundamental values of Pancasila and the principles of the Indonesian constitution.

The characteristics of cooperatives encompass several key aspects. First, cooperatives are both a gathering of people and a social community, functioning as business entities while simultaneously forming a social community. This dual nature highlights their social and collaborative dimension, focusing on economic and social activities. Second, cooperatives adhere to voluntary and open membership principles, meaning participation is entirely voluntary, and membership is accessible to anyone willing to join. This openness and transparency among members reflect the democratic and inclusive values inherent in cooperatives.[30] Finally, cooperatives' primary goal is to improve their members' welfare by fostering collaboration in a familial spirit. This underscores the essence of cooperation and kinship as the foundation for achieving collective prosperity.

These characteristics characterize cooperatives as economic entities that are

27 A Tulus Sartono, "Revitalitasasi Kaidah Koperasi Dalam Sistem Ekonomi Kerakyatan," *Masalah-Masalah Hukum* 39, no. 3 (2010): 245–52.

28 Law, "Law of the Republic of Indonesia No. 25 of 1992 Concerning Indonesian Cooperatives," 1992.

29 Herman Suryokumoro and Hikmatul Ula, *Koperasi Indonesia Dalam Era MEA Dan Ekonomi Digital* (Malang: Universitas Brawijaya Press, 2020).

30 Ghozali, Mohammad, et al. "The Law Concept of Sharia Banking Compliance on Murabaha Financing in Indonesia." Samarah: Jurnal Hukum Keluarga Islam 8.3 (2024): 1391-1408

more than just business entities; they involve social aspects and family values in their principles and operations.[31]

The concept of cooperatives, which are based on the principles of kinship and cooperation, is closely related to the values of Indonesian society.[32] Cooperatives systematically try to improve the capitalist-style economic order that emerged as a result of past colonialism experienced by the Indonesian people.[33] A capitalist economic system that prioritizes individual ownership can challenge cooperatives' position. Cooperatives strive for all members to become owners and administrators of cooperative legal entities.

Cooperatives have an organizational structure consisting of three main parts: member meetings, management, and cooperative supervisors. Member meetings are the highest authority in the cooperative and are held at least once a year. This meeting has an essential role in stating the rights and obligations of cooperative management and supervisors, as well as determining cooperative policies, articles of association, and other matters under the provisions of Article 22 of Law Number 25 of 1992. Cooperative management, the second part of the organizational structure, is elected by cooperative members through a member meeting. They are the power holders of members' meetings. They are responsible for the overall management of the cooperative or business, which is regulated at the members' meeting or extraordinary members' meeting. Furthermore, the cooperative supervisor is selected from the cooperative members by the members themselves. The supervisor's main task is supervising cooperative policies and management implementation. The presence of an effective supervisor is significant in ensuring that the checks and balances system in the cooperative organizational structure runs according to expected standards. Thus, this structure helps ensure transparency, accountability, and continuity of efficient cooperative operations.[34]

Cooperatives, whether as legal entities, associations, or legal agreements, must fulfill the following five elements of requirements to be recognized as legal entities:[35]

1. *Separate Property*

Cooperatives must have assets separated from those of other legal subjects. This indicates the existence of an independent and identifiable legal entity.

2. *Objectives under Legislation*

Cooperatives must not have specific ideal goals that conflict with applicable laws and regulations. The cooperative's objectives must be aligned and under applicable legal provisions.

3. *Interest in Legal Traffic*

Cooperatives must have interests in legal traffic, demonstrating their involvement and relevance in the law and regulatory provisions.

4. *Organized Management Organization*

Cooperatives must have a management organization that is regularly regulated under applicable laws and regulations and has its internal rules. This includes a clear organizational structure and defined roles.

---

[31] Arsadani, Qosim, et al. "The Progressiveness of Sharia Economic Fatwas: Direction of Islamic Legal Thoughts within NU and Muhammadiyah." AHKAM: Jurnal Ilmu Syariah 24.1 (2024): 153-170.

[32] Adis Nur Hayati, "Juridical Study on Cooperative Legal Entity Bankruptcy Submissions by Its Member," *Jurnal Penelitian Hukum De Jure* 22, no. 2 (2022): 257–70.

[33] Muhammad Adib Zain, "Politik Hukum Koperasi Di Indonesia (Tinjauan Yuridis Historis Pengaturan Perkoperasian Di Indonesia)," *Jurnal Penelitian Hukum-Fakultas Hukum Universitas Gadjah Mada* 2, no. 3 (2015): 160–77.

[34] Dian Cahyaningrum, "Bentuk Badan Hukum Koperasi Untuk Menjalankan Kegiatan Usaha Perbankan (Cooperative As A Legal Entity To Conduct Banking Business Activities)," *Negara Hukum: Membangun Hukum Untuk Keadilan Dan Kesejahteraan* 8, no. 1 (2017): 1–30.

[35] Jimly Asshiddiqie, *Perkembangan & Konsolidasi Lembaga Negara Pasca Reformasi* (Jakarta: Sinar Grafika, 2016).

5. Registered as a Legal Entity
Cooperatives must be registered as legal entities under applicable laws and regulations. This registration confirms the cooperative's legal status as an entity officially recognized by legal authorities.

Digital Transformation

Digitalization is changing analog data into digital in the form of zeros and ones. Digitalization takes analog processes and converts them into digital form without any other changes to the process itself.[36] Digital transformation aligns technology and business models to ensure new value for customers and employees in an ever-changing and evolving digital economy.[37] Digital transformation means using new digital technologies to enable significant business improvements, such as improving customer experiences, streamlining operations, or creating new business models.[38] Digital transformation can occur throughout the company.

The shift from analog electronic technology to digital technology is driving the current digital revolution. In 1986, 99.2% of the world's storage capacity was analog. In 2007, 94% of the world's information storage capacity was digitized. Based on these facts, data that is part of business processes is often processed through sophisticated digital technology, which causes fundamental changes in business processes.[39]

Digital transformation refers to strategic business transformation, which focuses on customers at its core and requires organizational and cultural changes and digital technologies.[40] Organizational changes have led to the interconnection of people and digital technologies, creating specific socio-technical systems (STS). Integrating digital technologies into social systems is another step in the evolution of society and, thus, how we do business—creating STS results in a social network with much more significant performance potential than a social network built without digital technology.[41] We could say that we are digitizing information, the processes and roles that shape a company's operations, and digitally transforming the company and its strategy. Digitization and digitization are about technology; digital transformation is about the customer.[42] Customer focus is a customer-centric adaptation of a Company's business strategy, operational setup, and technology mix.

To realize digital transformation's full potential, organizations must measure performance improvements on key indicators. The importance and use of indicators may differ in different phases of digital transformation.[43] Organizational

[36] Gartner, "Gartner Glossary—Digitization," 2023, https://www.gartner.com/en/information-technology/glossary/digitization.

[37] Dilber Ulas, "Digital Transformation Process and SMEs," *Procedia Computer Science* 158 (2019): 662–71.

[38] Michael Fitzgerald et al., "Embracing Digital Technology: A New Strategic Imperative," *MIT Sloan Management Review* 55, no. 2 (2014): 1.

[39] Trevor Owens and Thomas Padilla, "Digital Sources and Digital Archives: Historical Evidence in the Digital Age," *International Journal of Digital Humanities* 1, no. 3 (2021): 325–41.

[40] Rosele, Muhammad Ikhlas, et al. "The digitalized zakat management system in Malaysia and the way forward." AL-IHKAM: Jurnal Hukum & Pranata Sosial 17.1 (2022): 242-272.

[41] Katarina Stalmachova, Roman Chinoracky, and Mariana Strenitzerova, "Changes in Business Models Caused by Digital Transformation and the COVID-19 Pandemic and Possibilities of Their Measurement—Case Study," *Sustainability* 14, no. 1 (2022): 127.

[42] Dobrica Savić, "From Digitization, through Digitalization, to Digital Transformation, 2019," *Pridobljeno s: Https://Www. Researchgate. Net/Publication/332111919*, 2019; Natália Stalmašeková et al., "The Impact of Using the Digital Environment in Transport," *Procedia Engineering* 192 (2017): 231–36.

[43] Peter C Verhoef et al., "Digital Transformation: A Multidisciplinary Reflection and Research Agenda," *Journal of Business Research* 122 (2021): 889–901.

changes caused by digital transformation can lead to improved performance. Cultural change represents a shift towards a more agile and intelligent way of doing business based on digital technologies, such as advanced software-based analytical tools and artificial intelligence (AI).[44]

Digital transformation (DX) integrates digital technology across business areas, improving current operating processes, creating new ones, and providing added value for customers. It represents a cultural shift towards a more agile and intelligent way of doing business, powered by advanced analytics and artificial intelligence (AI) technologies. Enterprise digital transformation efforts have primarily begun and are growing and deepening. By 2023, digitally transformed organizations are expected to contribute more than half of the global GDP.[45]

Implementing digital transformation projects is not always smooth, and most such initiatives experience some loss of momentum at different stages—most of the challenges faced in digital transformation center on strategy, communication, culture, and talent. The most crucial factor determining digital transformation's success is having a clear business strategy and a solid commitment to implementing it. Going digital means more than just adopting certain innovative technologies - it's about reinventing business in the digital age. Each company must define its goals and decide on its unique approach.

Indonesia's G20 Presidency 2022

The G20 is a multilateral forum that brings together 19 of the world's major economies and the European Union (EU). G20 membership includes more than 60% of the world's total population, 75% of global trade, and more than 80% of the world's Gross Domestic Product (GDP). Member countries include Argentina, Australia, Brazil, Canada, China, France, Germany, India, Italy, Mexico, Korea, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union.[46]

Indonesia's G20 Presidency in 2022 established five pillars as its primary focus. The first pillar, Supportive Environment, and Partnership emphasizes fostering cooperation to maintain environmental sustainability and build robust partnerships. The second pillar, Promoting Productivity, focuses on enhancing productivity to support sustainable economic growth. The third pillar, Increasing Resilience and Stability, prioritizes strengthening resilience and stability in addressing global economic challenges. The fourth pillar, Ensuring Sustainable and Inclusive Growth, advances sustainable and inclusive economic growth with a particular emphasis on social justice and equity. Finally, the fifth pillar, More Vital Collective Global Leadership, advocates for strong and collaborative global leadership in tackling international issues. These pillars reflect Indonesia's commitment to driving impactful and equitable global economic policies.

The priority agenda for the financial pathway of Indonesia's 2022 G20 Presidency focuses on six key areas. First, the Exit Strategy to Support Recovery aims to formulate strategies to mitigate the impact of the crisis and support the economic recovery process. Second, Addressing Scar Effects to Secure Future Growth emphasizes actions to address long-term economic impacts and ensure

[44] Roman Chinoracký and Tatiana Čorejová, "Impact of Digital Technologies on Labor Market and the Transport Sector," *Transportation Research Procedia* 40 (2019): 994–1001; Alexander Van Deursen and Jan Van Dijk, "Internet Skills and the Digital Divide," *New Media & Society* 13, no. 6 (2011): 893–911.

[45] Petroc Taylor, "Digital Transformation - Statistics & Facts," Statista, 2023.

[46] Bank Indonesia, "G20 Presidency of Indonesia 2022."

sustainable growth. Third, Payment Systems in the Digital Era highlights the need to examine and develop payment systems responsive to advancements in the digital era. Fourth, Sustainable Finance promotes environmentally friendly investments and encourages the adoption of sustainable financial principles. Fifth, Financial Inclusion focuses on increasing financial access through digital financial inclusion and supporting financing for Small and Medium Enterprises (SMEs). Finally, International Taxation addresses global taxation issues to ensure fairness and transparency in the international taxation system. These priorities reflect Indonesia's commitment to fostering economic resilience, sustainability, and inclusivity through its leadership in the G20.

Indonesia's G20 Presidency in 2022 also presents a unique opportunity to integrate digital transformation within the cooperative sector, aligning with economic resilience and inclusivity goals. As cooperatives are key contributors to the socio-economic framework of Indonesia, the emphasis on Payment Systems in the Digital Era and Financial Inclusion directly supports their adoption of digital tools such as online payment platforms and digital financial services. Moreover, the pillars of Promoting Productivity and Ensuring Sustainable and Inclusive Growth provide a framework for cooperatives to enhance their operational efficiency, expand market access, and support equitable economic development. By leveraging the international collaboration facilitated by the G20, cooperatives can establish partnerships that enable access to global markets and technological advancements, further strengthening their role as a pillar of the national economy. This alignment underscores the importance of connecting global policy initiatives with local economic actors like cooperatives to achieve sustainable and inclusive national and international growth.

Strengthening the Role of Cooperatives as a pillar of the Indonesian economy

Strengthening the role of cooperatives as pillars of the Indonesian economy can be achieved through several strategic efforts. First, it is essential to increase public awareness of the significance of cooperatives as economic institutions that empower their members and contribute to national development. Additionally, cooperatives must enhance their capacity by providing continuous training and education for management, marketing, finance, and product development members. Access to key resources, including capital, human resources, technology, and markets, must be expanded by building networks and partnerships with stakeholders such as banks, investors, companies, and the government. Finally, regulations and policies supporting the growth of cooperatives as a sustainable economic sector should be improved, including offering incentives, legal protection, and increased access to government development programs. These steps collectively aim to position cooperatives as competitive and sustainable drivers of economic growth.

In the digital era, strengthening cooperatives requires aligning their strategies with the evolving demands of technology and innovation. This involves integrating digital tools to enhance operational efficiency, such as adopting digital payment systems, e-commerce platforms, and cloud-based management solutions. By embracing these innovations, cooperatives can expand their market reach, improve financial transparency, and streamline member services.

Moreover, support and cooperation from various parties, including the government, technology companies, and the community, are crucial. The government plays a key role in formulating policies that promote digital transformation while ensuring that cooperatives maintain their socio-economic values. Similarly, partnerships with technology companies can help cooperatives access affordable digital solutions tailored to their needs. In this context, forums like the G20 provide a platform to encourage collaboration and investment, emphasizing the importance of cooperatives as drivers of inclusive and sustainable economic growth.

To further solidify their role as pillars of the Indonesian economy, cooperatives must actively leverage digital transformation as a catalyst for growth. This includes adopting emerging technologies such as artificial intelligence, big data analytics, and blockchain to optimize operational processes and decision-making. By implementing these technologies, cooperatives can better understand market trends, enhance supply chain efficiency, and provide more personalized services to their members. Creating digital ecosystems where cooperatives collaborate with startups and fintech companies can foster innovation and competitiveness. These efforts must be accompanied by continuous advocacy and education to ensure cooperative members understand the benefits and challenges of digital adoption. Ultimately, aligning cooperative strategies with the national agenda for digital transformation, as highlighted in Indonesia's G20 Presidency, will enable them to become key contributors to a more resilient, inclusive, and sustainable economy.

Legal Basis for Digital Transformation

The digital economy is experiencing rapid growth, as evidenced by the increasing number of new and established companies adopting electronic business formats (e-commerce). This shift highlights the need for clear regulations to guide digital economy players' business activities. From an economic perspective, several key regulations serve as references for these businesses, including Law Number 7 of 2014 concerning Trade, Law Number 7 of 1992 concerning Banking, Law Number 25 of 2007 concerning Capital Investment, Law Number 20 of 2008 concerning Micro, Small, and Medium Enterprises, and Presidential Regulation of the Republic of Indonesia Number 9 of 2009 concerning Financing Institutions. These legal frameworks provide essential guidelines to ensure the orderly and sustainable development of the digital economy.

From a technological perspective, several regulations govern the digital economy, ensuring its proper functioning and development. These include Law Number 36 of 1999 concerning Telecommunications, which regulates communication systems and infrastructure; Law Number 11 of 2008 concerning Information and Electronic Transactions, which provides a legal framework for electronic transactions and digital communications; and Government Regulation Number 82 of 2012 concerning the Implementation of Electronic Systems and Transactions, which sets standards for managing and operating electronic systems securely and efficiently. These regulations play a crucial role in supporting the technological foundation of the digital economy.

Additionally, the legal framework in Indonesia addresses business actors and their legal standing, ensuring clarity and consistency across various organizational structures. Key regulations include Law Number 40 of 2007 concerning Limited Liability Companies, Law Number 17 of 2013 concerning Community Organizations, Law Number 17 of 2012 concerning Cooperatives, and Law Number 28 of 2004 concerning Amendments to Law Number 16 of 2001 concerning Foundations. These laws safeguard the roles and responsibilities of business entities, including cooperatives, in adapting to digital transformation. However, further attention is required to address intellectual property rights, consumer protection, anti-monopoly practices, money laundering, taxation, and data privacy, which are increasingly critical in the digital era.

In the context of global collaboration, forums like the G20 have emphasized the importance of legal harmonization to support the digital economy. The G20 encourages member countries, including Indonesia, to align their legal frameworks with international standards, particularly in data governance, cybersecurity, and digital taxation. This global dimension provides opportunities for Indonesia to refine its legal regulations to ensure cooperatives can thrive in the digital economy while maintaining their socio-economic principles.

In implementing digital transformation, cooperatives must consider critical legal aspects such as intellectual property rights, consumer protection, anti-monopoly practices, and anti-money laundering measures. Taxation and data privacy have also become increasingly urgent issues requiring comprehensive regulations. The ITE Law, as Indonesia's lex digitalis, provides a robust legal framework for electronic contracts and transactions, defining them as agreements conducted through electronic systems. By establishing clear standards for the preparation, storage, and transmission of electronic information, the ITE Law ensures the validity and enforceability of electronic transactions. Aligning these regulations with international standards through forums such as the G20 can further enhance cooperative competitiveness and strengthen Indonesia's position in the global digital economy.

Digital Transformation in Legal Entity Cooperatives in Indonesia

The regulatory framework for business entities in Indonesia is relatively sufficient to support digital transformation. However, one of the main challenges is that existing regulations are dispersed across various fields and sectors, requiring better integration to facilitate implementation. Cooperatives, as legal entities, can leverage digital technology in diverse business activities, such as creating company websites, utilizing social media, participating in marketplaces, and employing paid online advertising. The absence of regulations limiting cooperatives from adopting digital tools makes it feasible for them to transform into digital business entities. The binding rules for cooperatives in utilizing digital technology can be categorized into three main areas: economic regulations, technological regulations, and regulations related to business actors.

The Indonesian G20 Presidency in 2022 provides significant momentum for cooperatives to advance their digital transformation. The G20 Forum offers six pillars that align with the cooperative transformation agenda. First, strengthening the partnership environment: cooperatives must enhance partnerships to scale their businesses. Indonesia's cooperation with 19 other countries creates opportunities for cooperatives to establish international networks. Second, productivity can be encouraged through effective and efficient governance and meeting sales targets for cooperative products. Digital tools such as management software and e-commerce platforms boost productivity. Third, ensuring resilience and stability: cooperatives have demonstrated resilience during financial crises. By utilizing digital technology, cooperatives can strengthen financial management and build more stable systems to withstand economic shocks. Fourth, achieving sustainable and inclusive growth: sustainable economic growth can be realized by expanding cooperative business scales, which directly impacts the welfare of cooperative members. Digitalization allows cooperatives to reach broader communities and support economic sustainability inclusively. Fifth, fostering more decisive global collective leadership: Indonesia's role in the G20 highlights the potential of cooperatives in contributing to the worldwide economy. As part of this initiative, cooperatives can embrace digital technology to strengthen their position in international trade and geopolitics. Finally, accelerating digital innovation: the G20 emphasizes the importance of utilizing digital technology across business sectors, including financial services. Cooperatives are encouraged to adopt digital tools to improve operational efficiency and market reach.

The Indonesian G20 Presidency can encourage cooperatives to enter electronic business formats (e-commerce). The regulatory framework supporting e-commerce includes laws related to trade, banking, investment, MSMEs, and financing institutions. Technological regulations covering telecommunications, information, electronic transactions, and electronic system implementation also provide a strong foundation for digital transformation. Additionally, rules related to corporations, cooperatives, social organizations, and foundations allow these entities to adapt and thrive in the digital economy.

To fully realize the potential of digital transformation, cooperatives must actively engage in capacity building and adopt best practices from global forums like the G20. These forums inspire and emphasize the importance of harmonizing regulations with international standards. By addressing gaps in the regulatory framework and integrating digital tools into their operations, cooperatives can enhance their competitiveness, ensure sustainability, and contribute significantly to Indonesia's economic resilience in the digital era.

Despite these opportunities, cooperatives must address several challenges to maximize the benefits of digital transformation. Limited digital literacy among members, especially in rural areas, and high initial investment costs for adopting digital tools can hinder implementation. Furthermore, integrating cooperative values with technological advancements requires strategic alignment to maintain the socio-economic principles of cooperatives. Therefore, government support in the form of training programs, subsidies for digital adoption, and infrastructure development is essential. Aligning national policies with G20 priorities, such as financial inclusion and sustainable growth, can ensure cooperatives thrive in the digital era. These efforts will enable cooperatives to bridge the digital divide and reinforce their role as vital drivers of Indonesia's inclusive economic development.

Conclusion

The transformation of the cooperative business model into a digital format is no longer an option but a necessity. The rapid advancement of technology demands that every business sector, including cooperatives, adapt to remain relevant and competitive. Digital tools such as websites, social media, marketplaces, and paid online advertising offer cooperatives vast opportunities to expand their market reach and improve operational efficiency. Providing accessible and transparent information online allows cooperatives to tap into a broader audience and meet modern consumer demands.

The existing legal framework in Indonesia supports cooperatives in embracing digital transformation. Regulations related to trade, banking, investment, telecommunications, electronic transactions, and cooperatives provide a solid foundation for cooperatives to integrate digital technology into their business activities. These activities range from digital administration and marketing to online sales, data analysis, and virtual member meetings. However, regulatory refinement remains necessary to address emerging issues such as data privacy, intellectual property rights, consumer protection, and digital taxation.

The G20 Forum has further emphasized the importance of digital transformation, providing cooperatives with a strategic opportunity to align with international standards and expand their business globally. By adopting the G20 pillars, cooperatives can strengthen their partnerships, enhance productivity, ensure resilience, promote sustainable and inclusive growth, and leverage digital innovation to build a competitive edge in the global economy.

This study highlights the importance of a harmonized legal framework to support the digital transformation of cooperatives. The findings emphasize the need for cooperatives to effectively utilize digital tools while ensuring legal certainty and stakeholder protection. Integrating digital transformation into governance and operations is essential to solidify cooperatives' role as pillars of the Indonesian economy. To achieve this, consistent regulatory improvements are necessary to ensure compliance, sustainability, and alignment with the needs of cooperatives, policymakers, and society. Collaboration among the government, legislators, and stakeholders is crucial to creating an enabling environment where cooperatives can thrive and fulfill their socio-economic objectives in the digital era.

This study focuses on the legal framework for the digital transformation of cooperatives in Indonesia but does not explore practical challenges such as limited digital literacy or resource constraints. Socio-cultural factors influencing digital adoption are also beyond its scope. Future research should address these gaps through empirical studies on cooperative practices, successful digital transformation case studies, and comparative analyses with cooperatives in other countries. Exploring public-private partnerships and their role in digital adoption can provide valuable insights for policymakers and stakeholders. These directions would enrich the understanding of technology, law, and cooperative development in Indonesia.

Bibliography

Agostino, Mariarosaria, Lucia Errico, Sandro Rondinella, and Francesco Trivieri. "Do Cooperative Banks Matter for New Business Creation? Evidence on Italian Manufacturing Industry." *Annals of Public and Cooperative Economics* 93, no. 3 (2022): 637–75.

Akhmadieva, Narkas V. "Mismanagement and Misappropriation of Collective-Cooperative Property in the Kolkhozes of Bashkiria between the Late 1960s and the First Half of the 1980s as a Systemic Phenomenon." *Oriental Studies* 14, no. 1 (2021): 479–487.

Arsadani, Qosim, et al. "The Progressiveness of Sharia Economic Fatwas: Direction of Islamic Legal Thoughts within NU and Muhammadiyah." AHKAM: Jurnal Ilmu Syariah 24.1 (2024): 153-170.

Asshiddiqie, Jimly. *Perkembangan & Konsolidasi Lembaga Negara Pasca Reformasi*. Jakarta: Sinar Grafika, 2016.

Bank Indonesia. "G20 Presidency of Indonesia 2022." Bank Indonesia, 2022. https://www.bi.go.id/en/G20/default.aspx.

Bashori, Akmal. "Paradigma baru fiqih perdagangan bebas: Dialektika ulum al-din dan hukum negara." Ijtihad: Jurnal Wacana Hukum Islam dan Kemanusiaan 18.1 (2018): 81-98.

Cahyaningrum, Dian. "Bentuk Badan Hukum Koperasi Untuk Menjalankan Kegiatan Usaha Perbankan (Cooperative As A Legal Entity To Conduct Banking Business Activities)." *Negara Hukum:*

Membangun Hukum Untuk Keadilan Dan Kesejahteraan 8, no. 1 (2017): 1–30.

Castilla-Polo, Francisca, and M Isabel Sánchez-Hernández. "Cooperatives and Sustainable Development: A Multilevel Approach Based on Intangible Assets." *Sustainability* 12, no. 10 (2020): 4099.

Chen, Aijuan, and Steffanie Scott. "Rural Development Strategies and Government Roles in the Development of Farmers' Cooperatives in China." *Journal of Agriculture, Food Systems, and Community Development* 4, no. 4 (2014): 35–55.

Chinoracký, Roman, and Tatiana Čorejová. "Impact of Digital Technologies on Labor Market and the Transport Sector." *Transportation Research Procedia* 40 (2019): 994–1001.

Creswell, John W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: SAGE Publications, 2017.

Deursen, Alexander Van, and Jan Van Dijk. "Internet Skills and the Digital Divide." *New Media & Society* 13, no. 6 (2011): 893–911.

Dimyati, Ahmad. *Islam Dan Koperasi*. Jakarta: Koperasi Jasa Informasi, 1989.

Fitzgerald, Michael, Nina Kruschwitz, Didier Bonnet, and Michael Welch. "Embracing Digital Technology: A New Strategic Imperative." *MIT Sloan Management Review* 55, no. 2 (2014): 1.

Gartner. "Gartner Glossary—Digitization," 2023. https://www.gartner.com/en/information-technology/glossary/digitization.

Ghozali, Mohammad, et al. "The Law Concept of Sharia Banking Compliance on Murabaha Financing in Indonesia." Samarah: Jurnal Hukum Keluarga Islam 8.3 (2024): 1391-1408

Hakim, Lukmanul, Annisa Brilyanda Putri Aureli, Zulkifli Adam, Irina Ayu Sagita, Feni Nenden Anisah, Citra Tri Agustine Nusantara5, and Atu Aisyah Amin. "Analisa Keberlanjutan Bmt Dalam Pademi Covid 19 Berbasis Bisnis Model Dan Pemilihan Pelayanan Anggota Pembiayaan (Selective Lending)." *El-Ecosy: Jurnal Ekonomi Dan Keuangan Islam* 1, no. 1 (2021): 17–33.

Hayati, Adis Nur. "Juridical Study on Cooperative Legal Entity Bankruptcy Submissions by Its Member." *Jurnal Penelitian Hukum De Jure* 22, no. 2 (2022): 257–70.

Kustepeli, Yesim, Yaprak Gulcan, Muırat Yercan, and Batuhan Yıldırım. "The Role of Agricultural Development Cooperatives in Establishing Social Capital." *The Annals of Regional Science* 70, no. 3 (2023): 681–704.

Kyazze, Lawrence Musiitwa, Isaac Nabeta Nkote, and Juliet Wakaisuka-Isingoma. "Cooperative Governance and Social Performance of Cooperative Societies." *Cogent Business & Management* 4, no. 1 (2017): 1284391.

Law. "Law Number 17 of 2012 Concerning Cooperatives." The Indonesian Government, 2012.

———. "Law of the Republic of Indonesia No. 25 of 1992 Concerning Indonesian Cooperatives," 1992.

Lukiyanto, Kukuh, and Maranatha Wijayaningtyas. "Gotong Royong as Social Capital to Overcome Micro and Small Enterprises' Capital Difficulties." *Heliyon* 6, no. 9 (2020): e04879.

Maulana, Muhammad, et al. "Islamic Banking Services for Communities and Families in Aceh Province Post Closure Of Conventional Banks: A Comprehensive Review." El-Usrah: Jurnal Hukum Keluarga 7.2 (2024).

Muhammad, Pauzi, et al. "Actualizing Islamic Economic Law in the Digital Era: A Study of the Application of Khiyar al-Majlis in Electronic Contracts." JURIS (Jurnal Ilmiah Syariah) 23.2 (2024): 205-214.

MG, Hemantha Kumara, and Sudhindra Bhat. "A Systematic Literature Review and Research Objective of Treasury Management of Urban Cooperative Banks." *International Journal of Economics, Business and Management Studies (EBMS)* 9, no. 12 (2022): 42–55.

Moreira, Fernando, Maria João Ferreira, and Isabel Seruca. "Enterprise 4.0–the Emerging Digital Transformed Enterprise?" *Procedia Computer Science* 138 (2018): 525–32.

Owens, Trevor, and Thomas Padilla. "Digital Sources and Digital Archives: Historical Evidence in the Digital Age." *International Journal of Digital Humanities* 1, no. 3 (2021): 325–41.

Purbasari, Ratih, and Samún Jaja Raharja. "Digital Transformation In Cooperative Business Processes: A Study On Cooperatives In The Greater Bandung Area." *Inovbiz: Jurnal Inovasi Bisnis* 10, no. 1 (2022): 16–22.

Putri, Adriyanti Agustina, and Nadia Fathurrahmi Lawita. "Pengaruh Kepemilikan Institusional Dan Kepemilikan Manajerial Terhadap Penghindaran Pajak." *Jurnal Akuntansi Dan Ekonomika* 9, no. 1 (2019): 68–75.

Roselle, Muhammad Ikhlas, et al. "The digitalized zakat management system in Malaysia and the way forward." AL-IHKAM: Jurnal Hukum & Pranata Sosial 17.1 (2022): 242-272.

Sartono, A Tulus. "Revitalitasasi Kaidah Koperasi Dalam Sistem Ekonomi Kerakyatan." *Masalah-Masalah Hukum* 39, no. 3 (2010): 245–52.

Savić, Dobrica. "From Digitization, through Digitalization, to Digital Transformation, 2019." *Pridobljeno s: Https://Www. Researchgate. Net/Publication/332111919*, 2019.

Siregar, Rosnani. "Peranan Koperasi Dalam Meningkatkan Kesejahteraan Ekonomi Masyarakat Ditinjau Dari Hukum Ekonomi Islam." *At-Tijaroh: Jurnal Ilmu Manajemen Dan Bisnis Islam* 1, no. 1 (2015): 220–43.

Stalmachova, Katarina, Roman Chinoracky, and Mariana Strenitzerova. "Changes in Business Models Caused by Digital Transformation and the COVID-19 Pandemic and Possibilities of Their Measurement—Case Study." *Sustainability* 14, no. 1 (2022): 127.

Stalmašeková, Natália, Tatiana Genzorová, Tatiana Čorejová, and Lucia Gašperová. "The Impact of Using the Digital Environment in Transport." *Procedia Engineering* 192 (2017): 231–36.

Stieb, James A. "Assessing Freeman's Stakeholder Theory." *Journal of Business Ethics* 87 (2009): 401–14.

Suhendro, Dedi. "Pengaruh Kualitas Sistem, Kualitas Informasi, Kualitas Pelayanan Dan Ekspektasi Kinerja Terhadap Kepuasan Pengguna Dalam Penerapan Sistem Teknologi Informasi Pada Koperasi Di Kota Pematangsiantar." *Jurasik (Jurnal Riset Sistem Informasi Dan Teknik Informatika)* 1, no. 1 (2017): 33–40.

Sukardi, Didi. *Badan Hukum Koperasi Dalam Konteks Keadilan Bermartabat. CV. Zenius Publisher*. Cirebon: CV. Zenius Publisher, 2022.

Sulistyono, Mochammad, Yusuf Hidayat, and Muhammad Riduansyah Syafari. "Strategy for Empowerment of Micro, Small and Medium Enterprises (MSMEs)

Food Sector by the Office of Cooperatives, Small/Micro Businesses and Industry of Balangan Regency." *Journal of Development Studies* 1, no. 1 (2022): 39–48.

Suryokumoro, Herman, and Hikmatul Ula. *Koperasi Indonesia Dalam Era MEA Dan Ekonomi Digital*. Malang: Universitas Brawijaya Press, 2020.

Taylor, Petroc. "Digital Transformation - Statistics & Facts." Statista, 2023. https://www.statista.com/topics/6778/digital-transformation/#dossierKeyfigures.

Ulas, Dilber. "Digital Transformation Process and SMEs." *Procedia Computer Science* 158 (2019): 662–71.

Venanzi, Daniela, and Paolo Matteucci. "The Largest Cooperative Banks in Continental Europe: A Sustainable Model of Banking." *International Journal of Sustainable Development & World Ecology* 29, no. 1 (2022): 84–97.

Verhoef, Peter C, Thijs Broekhuizen, Yakov Bart, Abhi Bhattacharya, John Qi Dong, Nicolai Fabian, and Michael Haenlein. "Digital Transformation: A Multidisciplinary Reflection and Research Agenda." *Journal of Business Research* 122 (2021): 889–901.

Wang, Ya-na, Lifu Jin, and Hanping Mao. "Farmer Cooperatives' Intention to Adopt Agricultural Information Technology—Mediating Effects of Attitude." *Information Systems Frontiers* 21 (2019): 565–80.

Wardhiani, Wini Fetia, Tuti Karyani, Iwan Setiawan, and Ery Supriyadi Rustidja. "The Effect of Performance on the Sustainability of Coffee Farmers' Cooperatives in the Industrial Revolution 4.0 in West Java Indonesia." *Sustainability* 15, no. 6 (2023): 4901.

Yuhertiana, Indrawati, Corry Natasha Patrioty, and Nafsiah Mohamed. "The Moderating Effect of Organizational Changes on the Influence of Ethical Decision Making on Public Sector Internal Auditor Performance." *Contemporary Economics* 13, no. 4 (2019): 480–94.

Yuhertiana, Indrawati, Maheran Zakaria, Dwi Suhartini, and Helmy Wahyu Sukiswo. "Cooperative Resilience during the Pandemic: Indonesia and Malaysia Evidence." *Sustainability* 14, no. 10 (2022): 5839.

Zain, Muhammad Adib. "Politik Hukum Koperasi Di Indonesia (Tinjauan Yuridis Historis Pengaturan Perkoperasian Di Indonesia)." *Jurnal Penelitian Hukum-Fakultas Hukum Universitas Gadjah Mada* 2, no. 3 (2015): 160–77.