



(MUDIMA)



In a Competitive Market, Improving HRM to Assess Cooperative Opportunities and Challenges Indonesia's 2045 Economic Battle

Abdul Wahab Samad^{1*}, Dominica Dini Afiat², Muhammad Ishaq³,
Ahmad Nurdin Hasibuan⁴

^{1,4}Institut Bisnis dan Informatika Kosgoro 1957

²STIE Bhakti Pembangunan

³Universitas Muslim Indonesia

Corresponding Author: Abdul Wahab Samad w_abdoel@yahoo.com

ARTICLE INFO

Keywords: Challenges, Cooperative, HRM, Collaboration, Asses, Mutual Cooperation

Received : 1 November

Revised : 15 November

Accepted : 16 December

©2023 Samad, Afiat, Ishaq, Hasibuan:
This is an open-access article distributed
under the terms of the [Creative Commons Atribusi 4.0 Internasional](https://creativecommons.org/licenses/by/4.0/).



ABSTRACT

This study examines cooperatives' opportunities and challenges in the industrial era 4.0 by strengthening human resource management to manage market changes caused by the 4.0 competition war in the Indonesian economy in 2045, which affects all aspects of digitalization in cooperative organizations. Business intelligence is also needed to evaluate high-tech breakthroughs in the exchange of design and innovation knowledge and supplier and customer behavior data, which will be conveyed in Industry 4.0. The troubling method approach was used for this study to examine causal relationships, listen to information from multiple parties, and find appropriate solution ideas through a qualitative narrative study. The study found that Indonesian cooperatives require more planning and finance to realize their full potential. The Indonesian economy will be built on this innovation in 2045 to achieve cooperative economic goals. Cooperatives need confidence in their role in the digital platform transformation ecosystem, which requires close collaboration that benefits suppliers and customers

INTRODUCTION

Cooperatives, a key economic basis, can boost community resilience in the face of a 2023 global economic calamity. However, they present new challenges and opportunities. Cooperatives could strengthen communities in the face of a 2023 worldwide economic crisis. According to Battilani and Schroter (2012), the cooperative enterprise has a long history, especially in medieval Europe, where it had substantial economic significance. They collaborated on cooperative projects while maintaining political independence from the nobility and religious groups. To promote cooperation, Hanseatic League cooperatives were used to form worker unions and trade groups. These groups had cooperative members in many European towns. This method was based on Hanseatic League cooperatives. The prevalence of cooperatives throughout Europe today shows their importance in medieval economics. These cooperatives are medieval economic vestiges. Collaboration has been and will continue to be a priority for this Swiss cooperative. Medieval economics produced this cooperative form.

According to Battilani and Schroter (2012), various cooperative companies have existed since human civilization began. Industrial capitalism emerged from economic capitalism in the modern age in reaction to the first industrial revolution. Despite the Industrial Revolution and capitalism, cooperative collaboration was still a possibility for those who were committed to it.

Cooperative institutions manage income differently from non-profits. Therefore, cooperative institutes cannot distribute profits to shareholders. Profits from activities are shared among cooperative members depending on their proportional contributions. Battilani and Schroter (2012) said the difference between for-profit and non-profit organizations is that donors don't get a cut. This differs from company formation. American and Latin American cooperatives centered on autonomously fulfilling industrial food orders. This happened in the US and Latin America.

Knupfer (2013) notes that cooperatives have been involved in many cooperative movements throughout history and are now more involved in the food industry. Over 180 years ago, the movement began in the US. In the early 1830s, laborers formed consumer and industrial cooperatives for self-sufficiency. After then, clothes, furniture, coal, and food were traded. In the 1800s and late 1800s, rural farmers in these countries organized producer and consumer cooperatives. These cooperatives made money selling food and creamer ingredients, fire insurance, telephone company cables, electrical equipment, grain storage, and gasoline and oil stations until the 1930s.

The Great Depression was universal at that time. Meanwhile, savings and lending activities dominated other cooperative companies, which grew nationally. Indeed, the US cooperative movement is active. These operations include child care, credit savings and credit services, agricultural equipment, electricity, telephone, burial services, health care, housing, insurance, agricultural product marketing, and food.

Estimates show around 47,000 cooperatives with 130 million members in 2010. According to the International Cooperative Alliance (ICA), 25% of Americans are cooperative members. What causes have made US cooperative history prominent?.

Knupfer (2013) defines food cooperatives as collective enterprises where members own and run the firm while selling food products. Cooperative workers govern these cooperatives with their resources and labor. The cooperative's policies, goods, and structure are decided democratically. Most of the activity follows the ideas established by a group of weavers in 1844 when they founded the British Rochdale Society of Equitable Pioneers. Rochdale's cooperative has previously welcomed new members regardless of religion or race and upheld democratic control by giving each member one vote regardless of share ownership. Shares can only be owned with cash, not credit.

Additionally, member education is required. Capital gains depend on each person's share

ownership. Politics and religion are allowed, but they cannot support political parties or causes. Some cooperatives must strictly follow the following rules, especially when giving credit to their members.

This could threaten cooperatives. Politics rarely maintains objectivity. Some cooperatives in Rochdale, England, joined the British Labour Party after debating the direction of their own cooperative political party. Most US cooperatives do not financially support political candidates, but many participate in party politics.

Rakopoulos (2018) claims that cooperative critics often claim that, like other legal organizations, cooperatives have several possibilities to encourage economic transformation. The data comes from Rakopoulos' research. The ideology of affluence held their joint, entrepreneurial efforts responsible for societal reforms, egalitarian ideals, and cooperative community economic success. Cooperatives are considered the pinnacle of -ism, symbolizing socialist values that survive in society but have achieved their conclusion. It is odd that cooperativism has a greater impact on its members' lives and well-being. Co-operativeism, like other ideologies, affects individuals and society.

Researchers in the social sciences and humanities who study cooperatives and collaboration and cooperatization sometimes criticize cooperatives for not meeting their basic requirements. A new perspective on cooperatives is the goal of this analysis. However, the critique assumes cooperatives are influenced by Marxism. Critique of cooperatives shows their constant development as ethnographic significance is interpreted. The difference between administrators' perception of cooperatives' importance and their social position is an example. This critique follows Marxism and shows cooperative progress.

However, this critique (Rakopoulos, 2018) openly addresses worker and laborer exploitation in economic activity in the battle against neoliberalism. It emphasizes the cooperative movement's present social change activities. The critique recognizes that the movement's battle is not excessive or exploitative. Ethnographic anthropologists have

found that cooperatives are more involved in their members' complex personal lives than management or officials realize. Internal welfare alignment can secretly build an ideology movement that underpins cooperatives and becomes an anti-mafia movement.

Cooperatives are based on societal values beyond cooperation. Kinship networks promote honour, environmental self-dignity, and family home organization. We can understand the cooperative's functioning by examining the unaddressed aspects of cooperation, such as its internal dynamics and its impact on members' lives, as well as its broader scope, which includes financial obligations and work. When tied to cooperatives, cooperatives can become commercial companies that affect personal finances.

Carolan (2018) suggests cooperative programs for workers and members to save labor expenses and boost member involvement. This gives cooperatives and its members greater benefits than other businesses.

Some detractors say that it should be eliminated because it breaches minimum wage and employee compensation laws. Cooperatives pay lower wages than the industry norm, they say. Cooperative enterprises become more sophisticated as they grow. Cooperative workers are often deemed "workers" in civil law, especially under the FLSA. Employees having the same position as workers in other business industries may be cooperative workers, depending on their status. The Fair Labor Standards Act defined an employee as an employer-employed person at the time of its drafting. In common law, translations are judicially established statutes. Many cooperative member worker programs are partially protected by these decisions. The Hawaii court case permitted 25 hours of volunteering each month. This case explains federal co-op worker programs.

Legal experts who understand civil law say the cooperative member program worker is in a limbo. To remedy this issue, Congress must offer political support. Civil law observers consider this vital.

Ratner (2013) emphasizes the importance of focusing on the following topics to explore cooperation and ensure certainty: (1) the overall

concept of cooperation in cooperatives; (2) the socio-psychological aspects of cooperation; (3) the relationship between cooperatives and individuality; (4) the promotion of human rights, freedom, culture, and personal identity; and (5) the relationship between cooperatives and the environment. In this context, "broad sense" refers to the steady development of practical partnership.

Cooperation can seem simple (Ratner, 2013) when two people lift a heavy object in a certain order. This form of collaboration is a sign of cooperative behavior that applies to cooperative organizational structures, not to a group of animals hunting or feeding plants. Cooperation creates a new and inherent relationship. It becomes fundamental to social, cultural, and civilizational life. Collaboration creates adaptations to environmental changes, interpersonal connections, new communication methods, novel activities, specialized tasks, ontogenetic advances, improved psychological and behavioral abilities, and new anatomical and physiological organs. Understanding collaboration is crucial to understanding human relationships. Collaboration is essential for mutual progress.

In the new cooperative paradigm, Ratner (2013) claims the social system is analogous. This pattern shows the parallels between two items from different categories that share qualities or functions. Increasing disagreements between administrators and members are causing a social crisis in the cooperative sector. These interrelated conflicts are escalating and difficult to resolve and prevent in the cooperative paradigm. Because wars and crises are interconnected. Interventions like bailout money, settlements, and austerity are more effective in resolving conflicts inside enterprises after a scientific paradigm collapse than in cooperatives. This is because cooperatives are democratic and equitable. The new cooperative paradigm, based on collaborative building, requires cooperation as a social model. This step may or may not focus on maintaining the current collaborative system, although the goal is to do so.

Single example may illustrate this fundamental shift in perspective. Liberal economists advocate

public sector hiring to ease recessions, unlike conservative economists who advocate austerity. Expanding opinions on how government-sponsored employment creation mitigated the last economic downturn. However, the increase in government jobs was temporary. In 1981, the US recession was intentionally induced to facilitate another in 1990.

The government again increased work opportunities, temporarily relieving but eventually contributing to another economic collapse in 2001. Government jobs are good now. But they only contributed to the Great Recession six years later. Liberals believe a job recovery may improve things. Liberal economists say this technique has decreased prior economic downturns but is insufficient as a recovery plan and recurring requirement. They should have acknowledged the prior economic recovery's sluggishness and limited achievement in restoring worker employment and income. Both facts were omitted.

Conversely, each recession and economic recovery has created low-skilled, low-paying jobs. These tasks were created notwithstanding their occurrence. After an economic bounce, job recovery takes longer; in 1982, a recessionary recovery powered by job growth took two months.

Employment levels returned to 1991 levels in 1996, five years after the recession. Job growth stalled in 1991 for 18 months before rising again. In 2001, job availability plummeted for 23 months before returning. It did not recover pre-recession levels before the next recession.

The Great Crisis of 2009 caused a 23-month delay in employment recovery. It is expected that employment will not return to pre-crisis levels until the next recession. Each recovery saw a slower GDP growth rate.

Even with all known rescue techniques (Ratner, 2013), they will eventually lose effectiveness and result in fewer recoveries during an economic transition between recessions. Distribution of reform measures to solve the protracted recession and discover essential cures, such as cooperative-based economic solutions, to erase social concerns at the foundational level of society is crucial.

Due to recessions and crises' negative effects on society and the environment, cooperatives are needed to promote social ideals and perspectives. Ratner (2013) characterizes cooperatives as socially conscious.

Pioneers who formed cooperatives followed great principles that shaped this view of collaboration. Jose Arizmendiarietta, founder of the Mondragon Cooperative, said cooperative collaboration integrates intrinsic value for persons in economic and social processes. He warned that if this cooperation continues, a new social order that exploits and subjugates humans may result. Collaboration Cooperation is a socioeconomic, political, and psychological system, not just a friendly relationship. To ensure widespread access to food, water, housing, healthcare, education, and security, global cooperation is needed. For a healthy human environment and animal welfare, the global population's economic contribution is crucial. Cooperation is necessary for human survival because it provides peace, security, and psychological, spiritual, and moral demands.

Huckfield (Huckfield, 2021) disagrees with Pestoff and believes social service corporatization involves joint efforts to achieve social goals, such as providing services that families need due to the public sector's economic hardship, allowing parents to work. Pestoff's research informs Huckfield. Due to their legal status and productive economic operations, cooperatives can provide public sector services that other sectors cannot. For social services, cooperative services are widely used in French society and business. They provide a reference during economic downturns. Organizations that operate for profit are included. As part of social and economic activity, cooperatives operate as commercial organizations apart from market enterprises.

According to Huckfield (2021), social cooperatives are popular in Italy because they provide work, especially for women who lost their jobs during economic downturns. These cooperatives offer laundry and community service development.

Huckfield believes this is why social cooperatives are growing in Italy. The Italian social cooperative movement began in the 1970s and has grown significantly. Cooperative experts estimate 3,000 Italian cooperative members. These members' 100,000 cooperative service providers supply job-specific services to hundreds of thousands more people. Other nations followed Italy in 1991. Cooperative services in Portugal followed the Portuguese model. This 1998 model brought together affluent cooperative members, well-paid competent service workers, and cooperative members who freely produced cooperative services. Between 2000 and 2002, the French Secretariat of State for Civic and Economic Solidarity formed a solidarity-based cooperative. This cooperative offered services.

This happened for the first time in 2000–2002. This collaborative effort establishes shared services based on supply and demand, such as laundry or other domestic activities, with defined goals. It aspires to benefit consumers within a personal functional framework and integrate cooperative services for all citizens. Politicians and community and family members discuss these services informally.

The UK Industrial and Provident Society Acts of 1852 and 1893 established the legal basis for cooperatives, although they have yet to become independent institutions with legal rights in England. However, those Acts established cooperatives' legal structure (Huckfield, 2021).

Utilizing in Britain's legal system or political or social economy. The labor movement was also losing power. In 1900, the Labor Representational Committee lost power to the Labor Party, which had support from numerous groups and cooperatives. In France, cooperatives are vital to a socioeconomic system tied to European political goals. The term "which cannot cover the existence of redistribution and reciprocal ties between support and political objectives" implies that the market is only one part of the "economic framework." Thus, civil society collaborations "hold political relevance inside the public arena of contemporary democratic republics." The 1970s and 1980s UK cooperative problem

illustrates the conflict of interests. In 1976 and 1978, local Cooperative Development Agencies and the Industrial Common Ownership Movement introduced legislation that greatly expanded cooperatives' economies.

However, Britain and continental Europe needed more official support for cooperatives. Open university papers on cooperatives help cooperatives become entrepreneurs by providing legal and policy advice in response to conservative government policies that limit local government cooperative expansion's financial impact. Open university cooperative research papers emphasize these policies.

Although called cooperatives, most are registered as cooperative members and operate as corporations with ICOM assurance. Most cooperatives operate in the same social areas and employ workers similarly to traditional corporations, therefore they are thought to be similar. The expansion of analytical thinking about cooperatives has become a significant feature of scholarly inquiry, demanding deeper research into the causes of the breakdown of legalized social cooperatives.

Hunt (2022) claims that late 1800s attacks on black cooperatives sparked the US Cooperative Alliance. At the time, these attacks were ignored. This cooperation was severely attacked in 1889. When it closed, the Colored Farmers Cooperative Alliance and Cooperative Union was the largest African American producer cooperative. After a "bloodbath" at its headquarters in LeFlore, Mississippi, the gang collapsed. The cooperative was the largest black organization in US history, with over one million members in all Southern states. Due to judgmental enmity, collaborative leaders are killed or expelled at the sound of a gun, leaving members and their children without legal protection. The Memphis People's Grocery Store executives were hung three years later in 1892 for unfairly gaining a commercial advantage.

Ida B. Wells, Black Memphis, South America, and the African-American press were affected by this incident. Wells, a close ally of Thomas Moss, the future leader of the capital punishment abolition

movement, was executed at this occasion. This tragedy sparked the anti-lynching movement and emphasized the longstanding relationship between cooperatives and African-American cooperative directors' letters. As Du Bois advised, cooperative endeavors like these might threaten the economic well-being of cooperative African Americans. This is mostly due to white public opinion, as demonstrated in media reports criticizing black people who overrely on cooperative efforts. Due to the lack of severance compensation and expansion potential, extensive assaults on cooperative members suspected of profiting from purchasing clubs, newsstands, insurance groups, and other small businesses are ignored.

Du Bois and his research team found in their study on cooperative economic cooperation that when those who truly support cooperative initiatives fail, all cooperative members recognize it. Deep faith in the joint enterprise marks this acknowledgment. Du Bois understands cooperative enterprise success better than anybody else.

These interactions include a preoccupation with fire-setting that can lead to a debilitating psychological disease and its truth-seeking administrators. Du Bois, who spent much of his life supporting the cooperative movement, tried to "lift up," revitalize, and promote it. This action was taken to offset nineteenth-century black cooperative movement deaths. He claims that failure is impossible if one is a genuine stakeholder and that cooperative management faults will only emerge if earnings are allocated according to individual contributions. Stop letting fear rule! We must recognize cooperatives' high vulnerability to government sanctions. Due to their legality and simplicity of dismantlement, cooperatives are easy targets. Du Bois' novels, essays, and other forensic ephemera focus on exciting current events rather than optimistically anticipating a desired future.

Market System 4.0 Issues and Cooperative Digitalization Prospects

The rise of free markets under progressive democratic capitalism and socialism in the two decades before the 20th century was a sign of new

liberalism, according to Spronk (2021). Thus, free markets' failure to supply welfare is a major negative. New liberalism has increased free market uncertainty, privatization, and financial solution interdependence. Thus, economic inequality has increased, institutional control has increased, and poverty alleviation measures have strengthened.

Most market participants confront more hurdles due to the climate and environmental emergency. These essential circumstances leave millions homeless and exposed to hurricanes, droughts, and floods. Most market players face considerable challenges as the new liberal philosophy embraces the free market. The climate and environmental dilemma, which sustains life, exacerbates these concerns. The people least responsible for this catastrophe have suffered the most under the new liberal policies.

Spronk (2021) defines capitalism as a social system where productive wealth is privately held and used only to make profits. Spronk says capitalism was unprecedented. Capital owners, or capitalists, do not allocate their assets to meet human needs or advance societal goals.

Assume this is done to satisfy human wants. In that instance, the question arises whether meeting these requirements serves a real social goal or is only a cover for specific interests.

In addition, Spronk (2021) noted that the US electoral platform competition shows the continuous debate over democratic socialism against progressive capitalism in meeting human needs. This contest will choose the Democratic Party's 2020 presidential candidate.

This argument was made to choose a Democratic Party candidate to run against President Trump. The confrontation between the two philosophies could be seen as a contest for US electoral ideals, according to Spronk. Democratic socialism currently resembles progressive capitalism, a US form of capitalism with defined goals.

However, democratic socialism and progressive capitalism are often depicted as opposing views on how to best serve society.

Pelc (2022) claims that economic pursuits might cause uneasiness in open markets. Capitalist supporters' uneasiness is most visible when they compete to attain socially meaningful aims. These workers often flaunt their lavish social life while praising socialism. They want results that satisfy their capitalism and socialist goals. The veiled person agenda pits private incentives against society goals for fairness. Choosing the best option by reviewing capital flow game projects is encouraging.

Fairness requires individual motivations. Which aspects can be improved? Consider people who are focused on achieving goals and actively apply their skills throughout the day, producing papers, coding in computer languages, researching, and assessing capital investment returns. They claim to have never been unemployed. My best wishes for their success.

It's important to remember that all project work comes from the same effort. Integration of work and leisure is crucial, as each person has a unique plan. It's different from people with occupations and hobbies, except those who invest their cash flows by chance.

This group of innovative professionals is now considered creative socioeconomic strata. These workers balance work and pastimes for personal happiness and financial security. Thus, these changes have changed market incentives in population-wide sectors.

The utilitarian approach overcomes the problem of providing enough stable jobs in the socialism vs. capitalism argument (Pelc, 2022). This solution involves calculating each activity's impact on society's well-being. However, researchers say that the narrow view of economic systems and social equality is due to the lack of internal conflict between socialism and capitalism. The restrictions on human nature and misunderstanding of utilitarianism stem from this narrow perspective.

Recent marketing advances favor direct marketing, contrary to utilitarian marketing theory. According to Miller and Washington (2021), "Business-to-Business" (B2B) marketing involves selling to other businesses. This marketing technique

permits products to be resold, used as components in other products or services, offered to the industry market, or used for company activities. Some people use business marketing and industrial marketing interchangeably.

In their book "Business-To-Business Marketing 2020-2021", Miller and Washington (2021) argue that eCommerce's rapid expansion is driving B2B supply chain changes. Previously, multi-year, capital-intensive contracts took time. These high-value contracts can now be won quickly thanks to digital marketing. Marketing, formerly done offline, is being transformed digitally, especially for selling and marketing with larger contracts.

B2B companies spend a lot on formal events with their top clientele (Miller & Washington, Business-To-Business Marketing 2020-2021, 2021). Using a luxury hotel's client entertainment suite during the NCAA Final Four is an example. Event sponsorship at the Final Four, which focuses on the NCAA men's basketball championship, involves marketing. Even though some of the best games are undoubtedly played on cellphones in luxurious suites and hidden behind corporate hospitality marquees. The Final Four event is a rare marketing promotion that targets crucial customers with multiple on-demand events. Regional vice presidents and CEOs follow the Pareto Principle, which states that 80% of sales originate from the top 20% of clients. Thus, impressing the most valuable customers is vital. The usual business schedule includes this event to attain that purpose.

Martynova (2021) says the research intends to uncover technological project problems, particularly new higher education advances. Key internal stakeholders, particularly students, want social marketing through online information technology, which involves major contracts and impediments.

Online social marketing and information technology integration includes large contracts and problems. In addition to being motivated, students

faced challenges in developing non-cognitive skills, such as understanding software and cultivating expertise while maintaining self-discipline to outperform others through growth and experience. This was revealed by recognizing previous research, particularly the inaugural study. This discovery raises questions about colleges' abilities, notably in overcoming non-cognitive skill challenges. This problem, caused by students' lack of self-control and failure to accept others' achievements, might challenge colleges. However, higher education institutions must establish more creative laws to avoid these issues. Thus, innovation managers at higher institutions must understand student non-cognitive skill decline. This knowledge will help them create efficient research methodologies. The community relations department must communicate carefully and rationally to successfully implement research via innovation initiatives at higher education institutions. By effectively and sustainably explaining talents and capabilities to stakeholders, this is achieved. Research must be replicable, another important consideration. Higher education researchers must use cognitive skills to do new research. This requires self-discipline, mentally comparing methods to foresee future issues, and research that identifies external and internal obstacles. Such initiatives can motivate research growth and progress. This is essential for research organizers' success.

According to Suvalova, Troitskiy, and Zhaxybayeva (2021), the theory of generations classifies generations X, Y, and Z by the cultural values of the previous century. These generational groups became prominent in the early 1990s and had distinct qualities. This concept of generations was based on generational behavior. The values of the time underpin this thesis.

Conditionally occurring timeframes determine classification. Generation X stagnated. The Soviet Union criticized economic, political, and social policies from 1965 to 1985.

Next, we have Generation Y, also known as the "perestroika generation," which represented the Soviet Union's political and economic restructuring

that ended stagnation. Generation Y—millennials—lived from 1985 to 2003. "Millennial" comes from "millennium," referring to the transition from the previous generation to "millennials." This generation seeks multidimensional personal growth and boundless life options, unlike their ancestors. Millennials have freedom of thought and conduct and the ability to make life choices. This is because they value independence and freedom. Millennials' ability to embody their values shows their freedom.

Generation Z is the 2004–present cohort. This generation is known for their internet use and digital communication skills. A 20-year-old in 2020 will be the most evolved member of generation Z. Recent advances have sparked speculation about the Alpha Generation. Since 2015, this generation has become increasingly connected to artificial intelligence technologies.

In another section, Suvalova et al. (2021) argue that young professionals are highly valuable because they can advance and contribute to the successful execution of promising projects in their organizations. This theory is based on the observation that young professionals prioritize professional endeavors. Changing job duties to satisfy high-priority professionals' desires for flexible hours and remote work. Despite its availability, not all employers recognize this type of work's qualifications. An employee who works remotely yet occasionally visits the main office may not be considered a true team member. Thus, some employees may need help engaging with their coworkers, limiting their corporate participation.

Working for a flexible organization improves work-life balance. Flexible work hours are the best way to balance work and personal life. The younger Generation Z prioritizes flexible work arrangements that encourage work-life balance when picking a company. The need for flexible working hours and workplaces has grown due to advances in information technology and other communication methods.

According to Osipov and Rončević (2021), the economy and market in the fourth industrial revolution work under an open-access order market

structure. Economic actors in this system innovated in several areas, including product development and raw material research. They used advanced technology and innovative ideas to achieve this. According to Osipov and Rencevic, the state has always protected private ownership rights, enforced anti-monopoly laws, and helped lower transaction costs for the public. Additionally, the state must establish institutions to ensure economic efficiency.

Countries will adopt the culture and business tools of the fourth industrial revolution to efficiently run their governments as they adapt to this technological improvement. This transition will enable a new public administration structure and help countries adapt to the fourth industrial revolution. Many governments promote passivity and incentivize micro, small, cooperative, and medium-sized enterprise owners who actively engage in economic endeavors. Numerous countries with passive policies support this. The open-access order market system improves state policy in the fourth industrial revolution by moving economic activity up. A lot of research mentions the US, England, France, the Netherlands, and other liberal Western European states.

Examining the references of countries that manage economies and markets reveals more fourth industrial revolution participants. These nations naturally have Fourth Industrial Revolution-leading governments, according to Osipov and Rončević (2021).

These South American and African nations are naturally susceptible to the fourth industrial revolution. After the Soviet Union collapsed, these countries adopted republican political systems.

Osipov and Rencevic (2021) say China controls the fourth industrial revolution. Its high-tech exports and worldwide economic dominance demonstrate this. China exports three and a half times more high-tech goods than Germany, the second-most innovative nation. All 10 countries with the most advanced technology and innovative products are developed.

Eastern European countries like the Czech Republic, Poland, and Hungary have strong high-

tech industries with modern products. However, former Soviet states were handicapped in technological advancement. Especially high-tech exports, which are valued in US dollars. The improvements made by numerous people in the high-tech innovation field, with the support of institutional organizations, greatly increase high-tech manufacturing and improvement. Technical innovation in industrialized countries is driven by institutions, while high-tech innovation in emerging and transitional countries is driven by many individuals. A certain group of rising and transitional states has low high-tech export advancement in US currency.

According to Kovalchuck (2021), the export expansion of these advanced technology products shows the importance of technical innovation and high-tech design as investment factors in high-tech industrial businesses' product development demands. High technology was generally recognized for improving manufacturing process management at this period. It was important alongside non-capital-intensive management techniques.

This idea has a long history. This perspective has been confirmed, as modern technology is needed to radically restructure the industrial process. This includes changing technical equipment and managerial processes to accept new decision-making data from information systems and the Internet of Things.

Technological advances transformed the Fourth Industrial Revolution, according to Yukhno (2021). The expansion of communication system approaches in many economic and commercial situations signified this transition. Technological advances made manual operations digital.

All ICT operations include rapid communication system technological developments. They are a strategic strategy that radically changes the economy and market, giving corporations the possibility to make large gains or loses quickly. Suppliers and customers have interrelated demands, thus organizations need a digital strategy in a platform that cannot function alone. This platform

should be evaluated in each ecosystem and amid escalating competition.

The high-tech economy requires enterprises to quickly react to changing demand for goods and services. Thus, the company's use of digital platforms helps it to break down industrial boundaries and explore new competitive domains. Industry companies will continue to request knowledge exchange and supplier and consumer behavior data. Thus, enterprises must be confident in their place in the digital platform's transformation ecosystem. This ecosystem requires strong business partnerships to benefit suppliers and customers. Synthesising insights from information and expertise sharing facilitates teamwork. Following this collaboration in a digital platform ecosystem, building the best corporate strategy will become the priority. Knowledge and information will be shared more. A good company strategy requires the board of directors to evaluate rivals' strategies and their possible impact on the firm's external environment, as well as the company's own strategies. This implies that the board of directors must actively design and implement the most successful plan.

Additionally, it permits firm activities to be supervised to verify development plan conformity. Many companies use digital tools to expand their business strategy throughout strategy creation. GE gadgets and platforms connected to the internet are an example. Medicine can use these systems to remotely assess patient treatment progress in real time. GE offers internet-connected devices. Sony and Nike use similar digital product devices or platforms and receive support from Apple's Mac and iOS's Android apps. Please note that Amazon is the only online retailer that offers the Kindle app for reading books. Amazon Web Services (AWS), a global cloud platform with 165 data storage services, is being developed by Amazon. Due to digital technological differences between business fields and enterprises, this business strategy approach is impractical and nonsensical. This is because digital technology has advanced more than the traditional business strategy framework. To understand how the digital world, science, information, and

communication technologies affect business plans, one must take a holistic view. Advancement of digital technologies requires understanding their digital linkages.

Business intelligence data includes knowledge, information, and communication data, according to Gutnik (2021). The Data Warehousing Institute (TDWI) defines business intelligence as the conversion of data into insights. This involves managing company data on knowledge, information, and communication.

Gutnik (2021) suggests business intelligence. company intelligence converts company data into an analytical method organized within an application and matures into a cloud-based data architecture, benefiting end users. Typical "business intelligence" (BI) activities include: Business intelligence documents analytical data and information on the cloud. It also involves employing intuition to accelerate understanding and improve decision-making. Second, business intelligence is an analytical process and toolkit for data collecting, consolidation, and cloud-based data storage. company intelligence also analyzes and interprets company data to ensure the authenticity and dependability of insights.

METHODS

A qualitative research approach called the troubling method is used in this study to investigate causal links between variables. It involves collecting feedback from a variety of people and using a qualitative narrative research question to find the best solutions. The Troubling Method recognizes the problem and its consequences in a specific environment and time. Unavoidable circumstances with universal repercussions are included.

This technique addresses both the issue and its context and timeframe-specific effects. This technique lets you think freely about the topic, taking into account late-20th-century human cognition restrictions. The social sciences moved from interpretative to linguistic techniques, resulting in "representational crises" and different understandings. Crisis after crisis confront the modernist epistemological paradigm, which

examines knowledge's essence and proposes new questions.

The problematic method prioritizes humanism epistemologically and ontologically. The idea that human activities might mirror global events underpins this theory. Study, language, facts, sound, experience, and storytelling accomplish the ideas.

RESULTS AND DISCUSSION

The Indonesia 2045 vision builds on the current vision. According to Bappenas (2019), the Indonesia 2045 vision seeks a self-governing, progressive, equitable, and affluent Indonesia within the State of the Republic of Indonesia. The 2045 world population is expected to be 9.45 billion. More over half of this population will come from Africa and Asia, which now have the most people (55%) (Utama, Setiyadi, & Samad, 2023). Asian and American economies are expected to have 84% of the upper middle class. Even with resource-efficient technology, natural resource demand will climb faster than supply.

Technology will also boost natural resource efficiency. Emerging economies will account for 71% of economic output, with the Asian Region leading this trend. Human resource and infrastructure investments, structural reforms, and business climate improvements can boost competitive and sustainable economic growth.

The Indonesian economy is expected to increase 5.7% year from 2016 to 2045 to realize the Indonesia 2045 vision (Bappenas, 2019). Next, demographic benefits, technological advances, and economic competitiveness will drive structural improvements. Indonesia is anticipated to reach high-income by 2036 and the world's fifth-largest economy by 2045 if its cooperatives succeed. The goal is inclusive economic growth, which will raise Indonesia's middle-income population by 70% by 2045 and expand the global middle and upper-middle classes. Vision 2045 emphasizes workforce engagement, especially among women, workforce education, less informal labor, and a diminishing agricultural workforce with greater welfare. Work transitions, competency-based training, and information technology must be improved to attain

high workforce competence from 2026 to 2035. These three are essential.

According to Bappenas (2019), industrial modernization drives economic growth. This modernization concentrates on processing natural resources and building industrial centers with upstream-to-downstream supply and value networks. This requires innovation and a trained workforce. Focus should be placed on food and beverage, automotive, electrical, chemical, and pharmaceutical businesses participating in the global value chain.

The OECD (OECD, 2021) poll found that favorable demographics only boost economic development when the working-age population's skills match labor market demand. International firms have expressed concern about the quality of the Indonesian workforce, though it is not their main issue.

An overabundance of unskilled workers and a scarcity of skilled workers cause mismatches that affect 25% of the workforce and are projected to persist. Information and communications technology engineers and workers are in demand. Prior to COVID-19, the tourism sector suffered from a skills gap. A similar tragedy may soon hurt Indonesia's high-end tourism promotion. A shortfall of 1.3 million exceptional qualifiers by 2020 might rise to 3.8 million by 2030. (about one-third of the highly skilled workforce then). Along with a labor shortage, job criteria and worker certifications differ. Allen (2016) believes that 51.5% of workers must be qualified and 8.5% have too much experience.

According to Tulus (2022), European colonial powers shaped Asian cooperatives, including Indonesia. This influence persists until Asian cooperatives contribute economically. This is because cooperatives have shaped Asian cooperative growth. Asian legal norms and culture are shaped by longstanding cultural and religious traditions. These customs boost cooperative performance in most Asian countries. Gotong Royong in Indonesia and Bayanihan in the Philippines are cooperative traditions that encourage selflessness and cooperation to overcome problems. Longstanding traditions help communities develop. Both cases

involve cooperatives following these ideals. In order to encourage the future growth of cooperatives, these Asian values must be interpreted to prioritize the political interests of certain groups. Politicians and authorities prioritize capitalist political agendas in these readings.

Indonesia introduced cooperative development in the early 1970s. The 1973 Presidential Instruction created Village Unit Cooperatives (KUD). The Ministry of Cooperatives and Small and Medium Enterprises was then created to manage cooperative policies (Battilani & Schroter, 2012). Therefore, the Ministry of Cooperatives and Small and Medium Enterprises implemented these policies (Knupffer, 2013). The cooperative focuses on varied agricultural activities (Carolan, 2018). Farmers can receive agricultural finance from Bank Rakyat Indonesia (BRI), extension services, agricultural supplies, processing and marketing services, and more (Knupffer, 2013). KUD's service aims to boost food subsector agricultural productivity (Huckfield, 2021), increase small-scale farmers' revenues to promote agricultural expansion, and attain staple crop self-reliance for food security (Knupffer, 2013). Expansion made the KUD a multi-sector cooperative (Ratner, 2013). Thus, the KUD dominates all sub-district economic activity, including agricultural and non-agricultural ones (Lesmana, Siwalette, Nuraeni, & Faizah, 2023).

The 1989 government-sponsored KUD Mandiri Program bolstered the KUD paradigm. This scheme allowed non-farmers to join KUDs (Huckfield, 2021). KUD's economic relations with the private sector allowed it to manage cloves as an agricultural product during that profitable era (Tulus, 2022). In addition to KUD participation, the government is encouraging professional, military, and police officers to form urban cooperatives (Djemma, Muktamar B, & Bakti, 2023). Establishing professional and employment-based cooperatives is considered as a government initiative to offset these professionals and agricultural entities, resulting in fewer cooperatives in rural and urban Indonesia.

A strong legal framework with strict rules and regulations is needed for the cooperative movement to compete in the Indonesian economy by 2045. On May 28, 2014, the Constitutional Court declared Law Number 17 of 2012 Concerning Cooperatives unconstitutional. Therefore, the legislation Number 25 of 1992 Concerning Cooperatives (<https://koperasi.kulonprogokab.go.id/>, 2023) continues in effect until a new cooperative legislation is passed (Hidayat, Wiyanti, & Makmur, 2023).

After the Constitutional Court nullified Cooperative Law Number 17 of 2012, this happened. There is a rising push to promote cooperatives, recognizing that Law No. 25 of 1992 has to be updated to meet the demands of cooperatives in the digital age (Battilani & Schroter, 2012). The current cooperative interest impetus may be a unique catalyst (Gula & Yuneti, 2023). The new rules need cooperative regulation and contain deposit insurance institution regulations to improve the cooperative environment (Moron, Herdi, & Rangga, 2023). This law creates a savings and loan board and a cooperative restructuring committee. Both institutions promote fairness and justice in cooperatives (Bilo, 2021).

Battilani and Schroter (2012) say Indonesian cooperatives and non-profits are separate. It is not a limited liability company but a cooperative that accepts new members regardless of nationality, religion, or personal convictions. Each member has one vote in its democratic governance (Knupfer, 2013).

Members of the cooperative must perform their duties. These include earning salaries and maintaining non-cooperative relationships. These duties apply only to cooperative membership (Hidayat, Wiyanti, & Makmur, 2023). Members' economic actions aim to improve their finances, like cooperatives in other countries (Rakopoulos, 2018). Collaborative income comes from members helping each other when they need it. This money is developed by consumer-supplier collaboration. Gotong royong promotes interpersonal ties and open communication to promote consensual deliberation (Samad & Utama, Evaluation of Pancasila

Development Program for Millennial Generation, 2022). It emphasises agricultural activities based on available opportunities (Samad et al., Business Analysis of Food Security Investment Programme in Pinrang Regency, 2022) and capacity building through partnership (Ratner, 2013). The joint initiative promotes competency development through university research (Bappenas, 2019; Martynova, 2021). Cooperatives and Generation Z members in 2045 will benefit from this (Suvalova et al., 2021). Generation Z excels in information and communication technologies (Yukhno, 2021), setting them apart from other business units (Carolan, 2018). It's important to consider all choices while remaining firm when forming cooperatives (Ratner, 2013).

The social paradigm in 2045 suggests that higher education competencies, as defined by Bappenas (2019) and Ratner (2013), enable research discoveries, particularly in cooperative product marketing (Miller & Washington, Business-To-Business Marketing 2020-2021, 2021). Services are offered using these unique economic skills. Cooperation, especially cooperative services, maximizes a community's social and economic potential (Huckfield, 2021).

A business-to-business (B2B) mechanism product system transforms cooperative product supply chains (Miller & Washington, Business-To-Business Marketing 2020-2021, p. 39). Market-driven eCommerce will boost business intelligence applications (Gutnik, 2021). These programs will convert knowledge, information, and communication data. According to "Miller & Washington, Business-To-Business Marketing 2020-2021, 2021", higher-value contracts were signed. Additionally, Generation Z HR expanded its digital marketing methods. Miller, Washington, Suvalova, Troitskiy, and Zhaxybayeva (2021) authored the study.

Cooperative social marketing using information technology and operating online with large contracts and obstacles (Martynova, 2021) requires research and formula determination to get the best solution. This discovery raises questions

about how they expect to overcome non-cognitive skill obstacles for future cooperative administrators. Administrators must know what causes non-cognitive skill decline. Identifying innovations and developing sustainable research methodologies requires this awareness.

Science and information technology improve cooperative administrators' skills, according to Yukhno (2021). Communication systems and technology, information, and communication improvements greatly impact economic and market operations. These changes allow cooperatives to swiftly earn or lose value.

Cooperatives must adjust to demand changes for supplier-customer-related goods and services. This demands digital strategies on application platforms that cannot work independently. Each ecology and increasing competition must be considered while analyzing these platforms. Tech has spurred the rise of the high-tech ecosystem, prompting this. Cooperatives can expand into digitally dominant industries by using digital channels.

The necessity for industry suppliers and customers to share changing expertise and information will grow. Thus, firms must grasp their role in the expanding ecosystem's digital platform. Customers and providers must have a mutually beneficial alliance. Through information and knowledge exchange, values are fostered for intimate collaboration. This will then be used to determine the best way for cooperatives to collaborate in a digital platform ecosystem. This will increase knowledge sharing. An optimal business plan requires cooperative management with the skills to evaluate competitors' strategies, which can affect the company's external operations. This examination includes organizational and competitive economic strategies. Acquired by competitors. Cooperative managers with the competence to evaluate rivals' strategies are needed to create the best corporate strategy.

CONCLUSION

Advanced education will provide the information needed to develop fresh research findings, determining cooperative dominance in 2045. The main application will be marketing cooperative products, which will stand out from other productive economic endeavors and provide things the government's public sector cannot. Cooperative services provided by Generation Z's diversified human resources improve social and economic life.

To prepare Indonesia for its predicted status as the world's fifth-largest economy by 2045, 2026–2035 will focus on improving cooperative administrator skills. This will ensure current and future human resources have the abilities to collaborate.

By 2045, cooperatives' challenges and opportunities will depend on Generation Z's human resource management's ability to collaborate with customers and suppliers via digital platform apps. Communication and IT skills of Generation Z workers will determine this competence.

Additional research is needed to determine the function of cooperatives in the sector and how knowledge created and supplier-customer relationships relate. Industrial firms regularly exchange this data.

REFERENCES

- Bappenas. (2019). *Indonesia 2045: Berdaulat, Maju, Adil dan Makmur*. Jakarta: Kementerian PPN/Bappenas.
- Battilani, P., & Schröter, H. (2012). Introduction: Principal Problems and General Development of Cooperative Enterprise. In P. Battilani, & H. G. Schröter, *The Cooperative Business Movement, 1950 to the Present* (pp. 1 - 17). United States of America: Cambridge University Press.
- Bilo, S. (2021). Diverted Attention During Recessions. In A. John, & D. Thomas, *Entrepreneurship and the Market Process* (pp. 13-26). Cham, Switzerland: Springer Nature Switzerland AG.

- Carolan, M. (2018). *The Food Sharing Revolution How Start-ups, Pop-Ups, and Co-ops are Changing the Way We Eat*. Washington, DC: Island Press.
- Djemma, S., Mukhtar B, A., & Bakti, A. (2023). Pengaruh Modal Sendiri Terhadap Perolehan Sisa Hasil Usaha (SHU) pada Koperasi Simpan Pinjam Mandiri Pratama (KSP-MP) Kabupaten Wajo. *Precise Journal of Economic*, 1-8.
- Gula, V., & Yuneti, K. (2023). Analisis Rasio Likuiditas dan Profitabilitas Untuk Menilai Kinerja Keuangan Koperasi (Studi Kasus Pada KS Kopdit Pintu Air Tahun 2019-2021). *Jurnal Penelitian Manajemen dan Inovasi Riset Lokawati*, 102-118.
- Gutnik, S. (2021). Application of Data Mining and Machine Learning Methods to Enhance the Effectiveness of Digital Marketing Strategies. In N. Konina, *Digital Strategies in a Global Market Navigating the Fourth Industrial Revolution* (pp. 158-171). Cham Switzerland: Springer Nature Switzerland AG 2021.
- Hidayat, A., Wiyanti, D., & Makmur. (2023). Perlindungan Hukum Terhadap Anggota Koperasi BMT RIndu Alam yang Dananya Disalahgunakan Pengurus. *Jurnal Riset Ilmu Hukum (JRIH)*, 21-24.
<https://koperasi.kulonprogokab.go.id/>. (2023, Januari 18).
<https://koperasi.kulonprogokab.go.id/detil/1255/resmi-pemerintah-mulai-membahas-ruu-perkoperasian>. Retrieved from <https://koperasi.kulonprogokab.go.id/>:
<https://koperasi.kulonprogokab.go.id/detil/1255/resmi-pemerintah-mulai-membahas-ruu-perkoperasian>
- Huckfield, L. (2021). *How Blair killed the co-ops Reclaiming social enterprise from its Reclaiming social enterprise from its*. Oxford Road, Manchester: Manchester University Press.
- Hunt, I. (2022). *Dreaming the Present, Time, Aesthetics, and the Black Cooperative Movement*. United State of America: The University of North Carolina Press.
- Jakee, K., & Young, S. M. (2021). Entrepreneurship as Complex, Bundled Decisions: An Inframarginal Analysis. In A. John, & D. Thomas, *Entrepreneurship and the Market Process* (pp. 27-65). Springer Nature Switzerland AG: Cham, Switzerland.
- Knupfer, A. (2013). *Food Co-Ops In America Communities, Consumption, and Economic Democracy*. Ithaca, New York: Cornell University Press.
- Kovalchuk, J. (2021). Technologies of the Fourth Industrial Revolution as a Driver of Advancing in Digital Operations Management. In N. Konina, *Digital Strategies in a Global Market Navigating the Fourth Industrial Revolution* (pp. 127-144). Cham, Switzerland: Springer Nature Switzerland AG.
- Lesmana, R., Siwalette, A., Nuraeni, Y., & Faizah, S. (2023). Penerapan Sistem Informasi Koperasi Sebagai Media Simpan Pinjam Pada Komunitas Driver Operasional Berbasis Web. *Journal of Social Sciences and Technology for Community Service (JSSTCS) Universitas Teknokrat Bandarlampung Indonesia*, 80-83.
- Martynova, I. (2021). Social Barriers to Innovation in Higher Education: Key Stakeholders' Perception. In S. Ashmarina, & V. Mantulenko, *Digital Economy and the New Labor Market: Jobs, Competences, and Innovative HR Technologies* (pp. 48 - 54). Cham, Switzerland: Springer Nature Switzerland AG.
- Miller, R., & Washington, K. (2021). *Business-To-Business Marketing 2020-2021*. Miramar, FL: Richard K. Miller & Associates.
- Miller, R., & Washington, K. (2021). *Business-To-Business Marketing 2020-2021*. Miramar, FL: Richard K. Miller & Associates.

- Moron, L., Herdi, H., & Ranga, Y. (2023). Pengaruh Budaya Kerja Terhadap Kinerja Karyawan Koperasi Simpan Pinjam IKAMALA. *Jurnal Kompetitif*, 1-14.
- OECD. (2021). *OECD Economic Surveys: Indonesia 2021*. Paris, OECD Publishing. <https://doi.org/10.1787/fd7e6249-en>
- Osipov, V., & Rončević, A. (2021). Institutionalization of the Fourth Industrial Revolution in National Economics and on Global Market: Different Paths to Success. In N. Konina, *Digital Strategies in a Global Market Navigating the Fourth Industrial Revolution* (pp. 64-77). Cham Switzerland: Springer Nature Switzerland AG.
- Pelc, K. (2022). *Beyond Self Interest, Why The Market Rewards Those Who Reject it*. Madison Avenue, New York: Oxford University Press.
- Rakopoulos, T. (2018). *From Clans to Co-ops Confiscated Mafia Land in Sicily*. New York: Berghahn Books.
- Ratner, C. (2013). *Cooperation, Community, and Co-Ops in Global Era*. New York: Springer Science+Business Media New.
- Samad, A., & Utama, Z. (2022). Evaluation of Ideology of Pancasila Development Program for Millennial Generation. *Journal of Positive School Psychology*, 6687-66700.
- Samad, A., Hermawan, E., & Ishaq, M. (2022). Business Analysis of Food Security Investment Program in Pinrang Regency. *Journal of Positive School Psychology*, 9656 – 9668.
- Spronk, S. (2021). Development Alternatives Beyond the Free Market, Progressive Capitalism and Democratic Socialism. In F. Baqir, & S. Yaya, *Beyond Free Market, Social Inclusion and Globalization* (p. 16). Milton Park, Abingdon, Oxon: Routledge.
- Suvalova, T., Troitskiy, A., & Zhaxybayeva, G. (2021). Evolution of the Labor Market: Challenges of the Millennial Generation. In S. Ashmarina, & V. Mantulenko, *Digital Economy and the New Labor Market; Jobs, Competences and Innovative HR Technologies* (pp. 77-84). Cham, Switzerland: Springer Nature Switzerland AG.
- The Business Marketing Association. (2021). *Business-To-Business Marketing 2020-2021*. United States of America.: Richard K. Miller & Associates. Retrieved from <https://www.marketing.org/>.
- Tulus, R. (2022). Asian Cooperatives and Public Policy, Approach, Process, and Prospect. In W. Tadjudje, & I. Douvitsa, *Perspectives on Cooperative Law* (pp. 51-64). Gateway East, Singapore: Springer Nature Singapore Pte Ltd.
- Utama, Z., Setiyadi, M., & Samad, A. (2023). Strengthening Human Resource Management in a Competitive Market to Assess Cooperative Opportunities and Challenges 4.0 in 2045 Indonesian Economy Battle. *International Conference on Recent Trends in Multi-Disiplinary Research, Innovation in Multidisciplinary Research & Practice* (p. 61). Istanbul Turkey: University Canada West, Vancouver, Canada & Mahasarakham University, Thailand & STAT Office for Statistical Data Analysis and Training, Iraq and Institute For Engineering Research and Publication (IFERP).
- Yukhno, A. (2021). The Fourth Industrial Revolution and the New Paradigm of Corporate Governance Navigating the Fourth Industrial Revolution. In N. Konina, *Digital Strategies in a Global Market* (pp. 145-157). Cham Switzerland: Springer Nature Switzerland AG.