



RESEARCH ARTICLE

Section: *Digital Humanities***G20 as an initiative in strengthening global economic connectivity, digital security, and digital entrepreneurship: The case of Indonesia's presidency**Yusa Djuyandi¹, Mohammad Fazrulzaman Azmi¹, Arfin Sudirman¹, Agus Bhakti¹, Arlan Siddha² & Abdul Rauf Ridzuan³¹Faculty of Social and Political Sciences, Universitas Padjadjaran, Sumedang, Indonesia²Faculty of Social and Political Sciences, Universitas Jenderal Achmad Yani, Cimahi, Indonesia³Faculty of Communication and Media Studies, Universiti Teknologi Mara, Melaka, Malaysia*Correspondence: yusa.djuyandi@unpad.ac.id**ABSTRACT**

Indonesia's G20 Presidency took place during a critical period of global recovery following the COVID-19 pandemic, when digital transformation became central to economic resilience and sustainability. This study aims to examine how and why Indonesia's political initiatives within the G20 contribute to strengthening global economic connectivity, digital security, and the development of digital entrepreneurship. Employing a qualitative research design, the study utilizes observation and document analysis of G20 policy documents, declarations, and related official records to examine the relationship between post-pandemic global challenges and Indonesia's policy agenda. The findings indicate that Indonesia's G20 Presidency promotes a more inclusive global economic discourse by emphasizing digital connectivity, secure digital ecosystems, and the empowerment of digital entrepreneurs, particularly in developing countries. These initiatives enhance the participation of developing economies in global markets, support MSME resilience, and reduce digital disparities through improved infrastructure, skills, and policy coordination. Overall, the study demonstrates that Indonesia's political initiatives within the G20 play a significant role in advancing inclusive and sustainable global economic recovery through digital transformation.

KEYWORDS: digital connectivity, digital entrepreneurship, G20, political initiative

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1. Introduction

The G20 (Group of Twenty) Presidency refers to the position in which a country hosts the G20 meetings (Dubey, 2023; Kumar & Kumar, 2023). Following the handover of the Presidency from Italy, Indonesia officially held the G20 Presidency from December 1, 2021, until the G20 Summit in November 2022. This was the first time Indonesia held the G20 Presidency since the formation of the G20 in 1999. The G20 is seen as having a strategic position because it represents a significant portion of the world economy (Al-Fadhhat, 2022; Miranti et al., 2024; Pramana, 2022). G20 member countries account for approximately 66% of the world's population, 75% of global trade, 80% of global investment value, and 85% of world GDP.

Indonesia's assumption of the G20 Presidency holds particular significance when viewed against the historical development of the forum since its establishment in 1999. From its inception, the G20 was primarily dominated by advanced industrial economies, with emerging and developing countries occupying a more peripheral role in agenda-setting and norm formation. Although several emerging economies were included as members, leadership positions within the G20—especially the presidency were largely held by countries from the Global North. In this context, Indonesia's presidency represents a structural shift in global economic governance, signaling a broader redistribution of leadership toward the Global South.

The importance of Indonesia's G20 Presidency also lies in its symbolic and substantive dimensions. Symbolically, Indonesia's leadership reflects the increasing recognition of emerging economies as not merely policy-takers but also agenda-setters in global economic decision-making. As a middle-income country with a large population, a dynamic domestic market, and growing regional influence, Indonesia embodies many of the developmental challenges faced by countries outside the traditional centers of global economic power. Its presidency therefore provides a platform to articulate development-oriented perspectives that are often underrepresented in global forums, particularly those related to inclusivity, equity, and capacity-building.

Substantively, Indonesia's presidency is significant because it occurred during a period of profound global disruption following the COVID-19 pandemic. Since the G20's elevation to a leaders' forum during the 2008 global financial crisis, its relevance has been closely tied to moments of systemic shock. Indonesia's leadership during the post-pandemic recovery phase reinforces the G20's role as a crisis-management and coordination mechanism, while simultaneously expanding its mandate toward long-term structural transformation. In this regard, Indonesia's emphasis on digital transformation, inclusive growth, and support for developing economies reflects an effort to adapt the G20 agenda to contemporary global realities.

Furthermore, Indonesia's presidency highlights the strategic importance of Southeast Asia within the global economy. Since 1999, the G20 has increasingly acknowledged the economic dynamism of Asia, yet leadership from the region has remained limited. Indonesia's role as the first Southeast Asian G20 President strengthens regional representation and underscores the relevance of ASEAN and emerging Asian economies in shaping global economic norms. This contributes to a more balanced form of global governance that moves beyond the traditional transatlantic and East Asian power centers.

Indonesia's G20 Presidency is important because it bridges national interests with global responsibilities. By advancing issues such as digital connectivity, digital security, and digital entrepreneurship, Indonesia aligns domestic development priorities with global policy agendas. This demonstrates how the G20 Presidency can function as a strategic instrument for translating national development experiences into global policy initiatives. Since the formation of the G20 in 1999, such leadership from developing countries has remained limited, making Indonesia's presidency a critical milestone in the evolution of the G20 toward a more inclusive and representative institution.

It is recognized that the COVID-19 pandemic has redefined the relationship between humans and digital technology, making it increasingly multidimensional while highlighting the growing importance of digital services in everyday life. Digital issues are now embedded in collective efforts to address development challenges triggered by the pandemic, including health, social, cultural, economic growth, and labor challenges. The pandemic has highlighted the critical role of digital technology and provided insight into the potential benefits of a fully digital society. Digitalization is expected not only to contribute to faster economic recovery but also to promote sustainable post-pandemic growth.

While the important role of digital technology is increasingly recognized, it must also be underlined that effective data management and governance are essential. The rapid expansion of digital technologies

and platforms has highlighted the need to foster a more inclusive digital ecosystem through improved digital skills and digital literacy (Adi Syahid et al., 2025; Caon et al., 2021; McClain-Nhlapo & Raja, 2021). Against this backdrop, the Indonesian G20 Presidency encourages G20 members to contribute to a series of policy discussions focused on facilitating digital entrepreneurship, reducing the digital talent gap, and operationalizing data flows and data-sharing frameworks.

The digital transformation commitment began with the G20 Digital Ministers' Declaration and the G20 Rome Leaders' Summit Declaration under the Italian Presidency. This was followed by the transformation of the Digital Economy Task Force (DETF) into the Digital Economy Working Group (DEWG). The DEWG operates under the G20 Digital Economy Working Group Terms of Reference adopted in 2021 (Larionova & Shelepov, 2021; Santoso & Alamsyah, 2023). As a working group, the Indonesian Presidency continues previous efforts to explore how greater economic benefits can be derived from digitalization and how a sustainable digital economy can be ensured while addressing current and future challenges of digital transformation.

The digital economy has emerged as a central pillar of contemporary economic systems, reshaping production, distribution, and consumption across national and global scales. Broadly defined as economic activities enabled by digital technologies, platforms, and data-driven processes, the digital economy has transformed traditional sectors while simultaneously generating new forms of value creation. Its critical role has become particularly evident in the context of globalization, where digital infrastructures facilitate cross-border trade, financial inclusion, and the integration of markets. As economies become increasingly interconnected, the digital economy functions not only as a driver of efficiency and innovation but also as a key determinant of competitiveness and resilience.

The importance of the digital economy was significantly amplified during the COVID-19 pandemic, which exposed the vulnerability of conventional economic models reliant on physical mobility and face-to-face interactions. Digital platforms enabled the continuation of economic activities during periods of lockdown by supporting remote work, online education, digital finance, and e-commerce. Countries and firms with higher levels of digital readiness were better positioned to absorb economic shocks and sustain productivity. Consequently, the digital economy has come to be viewed as a strategic instrument for crisis mitigation and recovery rather than merely a complementary sector within the broader economy.

Beyond its role in crisis response, the digital economy is critical for promoting inclusive and sustainable development. Digital technologies lower entry barriers for micro, small, and medium enterprises (MSMEs) by reducing transaction costs and expanding access to domestic and international markets (Humaizi et al., 2020; Thamrin et al., 2023). Through digital platforms, entrepreneurs in developing economies can participate in global value chains that were previously dominated by large multinational corporations. This democratization of economic participation contributes to job creation, income diversification, and poverty reduction, particularly in regions where formal economic opportunities are limited.

At the macro level, the digital economy enhances state capacity and governance by improving service delivery, transparency, and policy coordination. Digital government systems facilitate more efficient public administration, support evidence-based policymaking, and strengthen accountability mechanisms. Moreover, the accumulation and utilization of data as an economic asset have transformed how states design economic policies, regulate markets, and manage risks. However, the growing reliance on digital systems also raises concerns related to data governance, cybersecurity, and unequal access, underscoring the need for coherent regulatory frameworks and international cooperation.

In the context of global governance, the digital economy has become a focal point of multilateral policy coordination. Institutions such as the G20 increasingly recognize that the benefits of digital transformation cannot be fully realized without collective efforts to address digital divides, harmonize standards, and ensure trust in digital ecosystems. The digital economy therefore represents both an opportunity and a challenge: it offers pathways to innovation-led growth and inclusivity while simultaneously demanding robust governance to mitigate risks and prevent new forms of inequality. As such, the digital economy plays a critical role in shaping the future trajectory of global economic development and cooperation.

Underscoring the critical role of the digital economy in many aspects of life, the DEWG also aims to streamline digital issues across Working Groups, Task Forces, and Engagement Groups while supporting cross-sector collaboration and dialogue. This objective is implemented through policy discussions, multi-stakeholder

forums, and workshops on three main topics: (1) Post-COVID-19 Recovery and Connectivity; (2) Digital Skills and Digital Literacy; and (3) Cross-Border Data Flow and Data Free Flow with Trust. These discussions aim to ensure continuity and alignment with the focus and outcomes of previous G20 DETF priorities. Indonesia seeks to encourage global policy coordination to realize more balanced global governance, making the G20 more adaptive to crises while also representing national interests in international forums and ensuring that the G20 remains relevant not only for its members but also for developing countries more broadly.

The widespread use of digital connectivity by the global community has the potential to generate significant positive impacts on human life (Nanda, 2024). For instance, many MSME actors can now develop their businesses more easily through the use of digital technology, such as digital cashier applications, marketing through social media, or opening online stores on marketplace platforms. In the future, the development of MSMEs and other business actors may continue to expand more rapidly as digital technologies become increasingly accessible. At the same time, people's quality of life may continue to improve as digital connectivity becomes more widespread and accessible across different regions.

Therefore, this study aims to examine how and why Indonesia's political initiatives within the G20 contribute to strengthening global economic connectivity, digital security, and the development of digital entrepreneurship.

2. Literature Review

2.1. Digital Connectivity

Digital connectivity can be defined as the facilities and infrastructure that affect various aspects of human life, including the economy, social interaction, and the development of smart cities (Knox, 2021; Lynn et al., 2022; Vagadia, 2020). Various digital connectivity technologies have emerged mainly in the 21st century or since 2000 (Gouseti, 2014; Grant, 2001). Therefore, it is natural that changes in communication patterns have occurred over the last two decades. Although relatively recent in its development, digital connectivity has become increasingly important for modern societies and now serves as a key tool supporting many aspects of human life.

Data show that by the early 2020s, around 90 percent of the global population has access to mobile-based telecommunications networks (mobile broadband) (Bildt, 2017; Williams et al., 2011). The massive use of communication technology has generated various positive impacts on economic development across many countries, particularly in developing economies (Bahrini & Qaffas, 2019; De La Hoz-Rosales et al., 2019; Farhadi et al., 2012; Karaman Aksentijević et al., 2021). The impact of digital connectivity is also strongly felt in Indonesia. Currently, Indonesia is among the ten countries with the largest number of smartphone users and internet access in the world. This situation demonstrates that a large portion of the Indonesian population increasingly depends on digital connectivity in everyday life.

The COVID-19 pandemic accelerated the adoption of digital technologies to facilitate business operations and maintain social connections (Almeida et al., 2020; Hantrais et al., 2021; Holl et al., 2024; Sahoo et al., 2022). In previous G20 meetings, connectivity issues have been discussed in the context of digital economy development, including efforts to promote inclusive economic growth, transform conventional economic structures, and address the socio-economic impacts of the pandemic. Through the Digital Economy Working Group (DEWG), further discussions are encouraged regarding digital connectivity and its role in supporting post-pandemic recovery.

Among G20 countries, there is a shared perspective that strengthening the digital economy is essential for fostering inclusive growth and sustainable development. This transformation requires a shift from conventional economic structures toward digital-based economic systems, where information and communication technology (ICT) functions as a key driver of productivity growth and economic restructuring. While the pandemic reinforced the importance of the digital economy, it also increased awareness of the economic and social responsibilities associated with a highly digitally connected global population.

2.2. G20 Presidency and Its Historical Evolution

The Group of Twenty (G20) emerged as a response to systemic vulnerabilities in the global financial architecture, particularly following the Asian Financial Crisis of 1997–1998. Initially established in 1999 as a forum for Finance Ministers and Central Bank Governors, the G20 was designed to foster policy coordination between

advanced and emerging economies in order to maintain global financial stability. The forum gained heightened political relevance during the 2008 Global Financial Crisis, when it was elevated to a leaders' summit, marking a significant institutional shift from a technical coordination body to a strategic platform for global economic governance. Since then, the G20 has functioned as a central arena for addressing transnational economic shocks, systemic risks, and development asymmetries.

The rotating G20 Presidency plays a pivotal role in shaping the forum's agenda, priorities, and diplomatic tone (Dubey, 2023; Lechini & Fernández Alonso, 2019; Ogden, 2023). Each presidency reflects the host country's strategic interests while maintaining continuity with previous commitments. This agenda-setting authority enables the presiding country to highlight specific global challenges and frame them within broader multilateral cooperation. Over time, G20 presidencies have increasingly emphasized inclusive growth, sustainable development, and digital transformation, reflecting structural changes in the global economy and the growing interdependence among states.

Indonesia's G20 Presidency in 2022 should be understood within this historical trajectory. As the first Southeast Asian country to assume the G20 Presidency, Indonesia symbolized the growing voice of the Global South in global economic governance. Its presidency coincided with a critical period of post-pandemic recovery, during which digital transformation emerged as a key driver of resilience and inclusivity. Building on the foundations laid by previous presidencies—particularly Italy's emphasis on connectivity and digital inclusion—Indonesia advanced a development-oriented interpretation of digitalization that emphasized equity, capacity building, and the participation of developing economies.

Historically, the G20 has evolved from a crisis-response mechanism into a platform for long-term structural reform. This evolution is reflected in the expansion of its working groups, including the transformation of the Digital Economy Task Force into the Digital Economy Working Group (DEWG). Through these institutional developments, the G20 Presidency has become not merely an administrative role but also a form of political leadership that shapes global norms and policy discourse. Consequently, the Indonesian Presidency can be viewed as part of a broader historical shift within the G20 toward addressing digital divides, the governance of emerging technologies, and the role of digitalization in sustainable development.

2.3. Digital Security

Digital security has become a foundational pillar of the contemporary digital economy, particularly as societies become increasingly reliant on digital infrastructures for economic, social, and political activities (Coles-Kemp, 2020; Humaizi et al., 2019; Juneja et al., 2024; Ptashchenko, 2023; Vdovichen et al., 2024). Digital security refers not only to the protection of data and information systems from cyber threats but also to the establishment of trust, resilience, and accountability within digital ecosystems. As digital connectivity expands, vulnerabilities related to cybercrime, data breaches, and disruptions to critical infrastructure also intensify, posing significant risks to economic stability and public confidence.

In the context of global governance, digital security has emerged as a shared concern that transcends national boundaries (Baltezarević et al., 2025; Dall'Acqua & Gironacci, 2020; Roy, 2006; Tan & Tai, 2024; Tran & Atkinson, 2002). Cyber threats are inherently transnational, requiring coordinated responses, harmonized regulatory frameworks, and multistakeholder collaboration. For the G20, digital security is closely linked to broader objectives of economic resilience and sustainable growth. Secure digital systems are essential for enabling cross-border data flows, digital trade, and the integration of micro, small, and medium enterprises into global value chains.

The COVID-19 pandemic further underscored the importance of digital security (Alrabae & Manna, 2021; Gabriel et al., 2021; Hejase et al., 2021; Olayinka & Win, 2022; Pranggono & Arabo, 2021; Such-Pyrgiel et al., 2022). The rapid shift toward online platforms for work, education, finance, and public services significantly expanded the digital attack surface. At the same time, unequal digital security capacities among countries intensified existing global asymmetries. Developing countries, in particular, face structural challenges related to limited cybersecurity infrastructure, regulatory gaps, and shortages of skilled personnel. These limitations risk undermining the benefits of digital transformation if not addressed through collective international cooperation. Within the framework of the G20, digital security is increasingly framed as a prerequisite for inclusive digitalization. Policy discussions emphasize consumer protection, safeguarding critical infrastructure, and

strengthening cooperation between governments, the private sector, and civil society. Rather than treating digital security solely as a technical issue, the G20 approaches it as a governance challenge that requires balancing innovation, economic openness, and risk mitigation. This perspective aligns digital security with trust-building mechanisms that enable broader participation in the digital economy.

2.4. Digital Entrepreneurship

Digital entrepreneurship represents a transformative model of economic activity shaped by the integration of digital technologies into entrepreneurial processes (Elia et al., 2020; Nambisan, 2017; Satalkina & Steiner, 2020; Tishutin, 2023; Ulhøi, 2021). It encompasses the creation, operation, and scaling of businesses that rely on digital platforms, data-driven decision-making, and networked markets. Compared with conventional entrepreneurship, digital entrepreneurship reduces barriers to entry, expands market reach, and enables rapid innovation through technology-enabled business models.

The relevance of digital entrepreneurship became particularly evident during the COVID-19 pandemic, when digital-based enterprises demonstrated greater adaptability and resilience compared with traditional businesses. Lockdown measures and mobility restrictions accelerated the adoption of e-commerce, digital payments, and online service delivery. As a result, digital entrepreneurs—particularly those operating within micro, small, and medium enterprises (MSMEs)—played a crucial role in sustaining economic activity and employment during periods of disruption.

From a development perspective, digital entrepreneurship is closely associated with inclusive economic growth (Alzamel, 2024; Leong et al., 2022; Solehudin, 2025). By leveraging digital platforms, entrepreneurs in developing countries can access broader markets, financial services, and knowledge networks that were previously difficult to obtain. However, the expansion of digital entrepreneurship depends on several enabling conditions, including reliable digital infrastructure, adequate digital skills, supportive regulatory environments, and secure digital ecosystems.

Within the G20 agenda, digital entrepreneurship is positioned as a strategic instrument for post-pandemic recovery and long-term economic transformation. Policy discussions emphasize the empowerment of MSMEs, support for startups, and the integration of digital entrepreneurs into global value chains. The focus extends beyond economic efficiency to include broader social objectives, such as job creation, poverty reduction, and the reduction of digital divides.

Moreover, the development of advanced digital infrastructure, including high-speed broadband and emerging technologies, strengthens the entrepreneurial ecosystem. At the same time, the G20 recognizes that the growth of digital entrepreneurship must be accompanied by adequate consumer protection, effective data governance, and strong cybersecurity measures. In this sense, digital entrepreneurship, digital security, and digital connectivity form an interconnected policy triad that supports inclusive and sustainable economic development.

3. Methodology

This study examines Indonesia's presidency in the G20 and relates it to contemporary global challenges, particularly in the context of global economic recovery following the COVID-19 pandemic. The research adopts a qualitative approach in order to explore the relationship between Indonesia's political initiatives within the G20 and broader developments in the digital economy. Qualitative methods are appropriate for understanding policy processes, institutional dynamics, and the interpretation of policy agendas within international forums. The study primarily relies on observation and document analysis. The data sources consist of official G20 documents, including leaders' declarations, ministerial statements, policy reports, and institutional publications related to the Indonesian G20 Presidency. Additional sources include academic literature, policy analyses, and reports from international organizations that discuss digital transformation, digital governance, and global economic recovery.

Indonesia's G20 Presidency was selected as the main focus of analysis because Indonesia represents one of the largest developing economies and a key actor from the Global South within the G20. The presidency also coincided with a critical period of global transition, when countries were attempting to recover from the economic and social impacts of the COVID-19 pandemic while simultaneously adapting to rapid technological transformation. This context provides a relevant case for examining how national leadership within multilateral

forums can influence global policy discussions.

The analytical process involves reviewing and interpreting policy initiatives introduced during Indonesia's G20 Presidency, particularly those related to digital connectivity, digital security, and digital entrepreneurship. These themes are analyzed to understand how Indonesia framed digital transformation as part of a broader strategy for inclusive economic recovery and global cooperation. Through this approach, the study seeks to identify the role of Indonesia's political initiatives in shaping discussions on digital governance and economic connectivity within the G20 framework.

Finally, the analysis is conducted through qualitative interpretation of the collected materials. The study focuses on identifying recurring themes, policy priorities, and strategic narratives related to digital transformation within the G20 agenda. By examining these elements, the research aims to provide a deeper understanding of how Indonesia's presidency contributed to strengthening global economic connectivity and promoting digital-based economic development in the post-pandemic era.

4. Results

4.1 G20 and Global Issues

The emergence of the G20 as an international forum that brings together the world's largest economies has created new opportunities to strengthen cooperation and promote global inclusiveness. Beeson and Bell (2009) explain that the G20 serves as an instrument for consolidating global economic influence in order to realize inclusive cooperation among countries. Within this framework, each G20 member has the opportunity to influence the outcomes of discussions and cooperative initiatives. Consequently, policy outcomes are not solely dominated by developed economies with greater economic power, but also consider the interests and development needs of emerging and developing countries.

Nevertheless, some scholars question the effectiveness of the G20 in addressing structural global imbalances. Eichengreen (2011), for example, argues that the G20 cannot guarantee protection against persistent global economic disparities. Despite these limitations, G20 meetings demonstrate continuous efforts to address such imbalances. Development initiatives in lower-income countries have increasingly become important agenda items, with discussions focusing on issues such as trade, infrastructure development, and food security (Elliott, 2011).

The discourse on economic development within the G20 has often received both praise and criticism. Gallagher (2015) describes the G20 as a forum characterized by extensive dialogue but limited implementation. However, the forum has encouraged industrialized countries to recognize the negative spillover effects of their monetary policies on cross-border financial systems. In this regard, the G20 has played an important role in facilitating dialogue aimed at mitigating financial vulnerabilities in the global economy (Gallagher, 2015). Similarly, Kirton (2017) argues that leadership within the G20 reflects a relatively democratic form of global governance that contributes to international cooperation in the twenty-first century. Consequently, the G20 has the potential to generate positive impacts not only for its member states but also for the broader global community.

A wide range of issues has been addressed within the G20 framework, including environmental sustainability and economic development. One example is the growing discussion surrounding the concept of the blue economy, which has gained prominence as concerns about ocean degradation increase (Kraemer, 2017). Through such discussions, the G20 encourages countries to recognize the strategic importance of maritime resources as sources of food, energy, and economic growth (Kraemer, 2017).

In addition, discussions within the G20 have addressed innovation in international trade, including debates regarding intellectual property rights within global trade agreements (Lombardi et al., 2017). Emerging technologies have also become part of the conversation. Maupin (2017), for instance, argues that blockchain technology could contribute to the development of a more inclusive global digital economy. Cooperation among countries in this area may promote transparency, security, and accountability within digital financial systems. Consequently, the G20 can serve as a platform for coordinating international efforts to utilize blockchain technology for economic resilience, financial inclusion, and trade facilitation.

From this perspective, the G20 can be seen as an organization that reflects the constructive aspects of globalization and therefore remains relevant in contemporary global governance (Narlikar, 2017). The forum

provides an arena for managing global crises and negotiating various challenges associated with globalization. Lesage (2017) also argues that the G20 possesses the political influence, intellectual resources, and global representation necessary to function as an effective monitoring and coordination platform. Compared to institutions such as the United Nations, the G20 is often more flexible and capable of building political consensus more rapidly due to its relatively informal institutional structure. As a result, the G20 can help address global leadership gaps in areas such as energy governance, migration, and economic stability.

However, the emergence of the COVID-19 pandemic in 2020 generated criticism of the G20's ability to respond effectively to global crises. Bernes (2020) argued that the forum appeared relatively powerless during the initial stages of the pandemic. Nevertheless, the author emphasized that strong multilateral cooperation—including collaboration within the G20—remains essential for addressing global crises. Similarly, Greco (2020) highlighted the importance of international coordination in managing both the immediate health crisis and the subsequent economic recovery process. According to Greco (2020), the G20 plays a critical role in managing geopolitical competition among major powers that could potentially hinder post-crisis recovery.

Therefore, considering the various global challenges discussed within the G20 framework, technological transformation has become an increasingly important component of global economic development. The integration of digital technology into economic policy discussions reflects the growing recognition that digital innovation and global inclusiveness are essential for addressing the economic and social challenges emerging in the post-pandemic era. This perspective was particularly emphasized during the Italian Presidency in 2021 and continued under Indonesia's G20 Presidency in 2022.

4.2 G20 Initiative and Digital Connectivity

The recognition of the importance of collective action and inclusive collaboration among developed and developing countries remains a central objective of the G20. The global COVID-19 pandemic that began in 2020 affected nearly every aspect of human life, ranging from health and education to international trade and economic activity. During this period, the relationship between society and digital technology became increasingly multidimensional as digital services played a more prominent role in everyday activities.

The pandemic highlighted the importance of digital technology as an accelerator for the formation of a digital society. One indicator of this transformation is the rapid increase in the use of digital technologies across various sectors. As a result, individuals, employees, and institutions are required to develop stronger digital literacy and technological skills. Consequently, digital issues have become a central component of global efforts to address development challenges intensified by the pandemic, including economic growth, labor market transformation, healthcare services, and social welfare.

Since the beginning of the pandemic, digital connectivity and digital services—defined as services delivered through internet-based platforms—have become essential for maintaining economic and social continuity. Digital technologies have enabled businesses to operate, educational institutions to conduct remote learning, and governments to provide essential public services. Although digital services had already been expanding prior to the pandemic, they have become increasingly central to economic and social activities. As a result, global demand for digital infrastructure and services has increased significantly.

Despite this progress, a substantial digital divide remains. More than half of developing countries still face significant challenges related to digital connectivity. Many communities lack access to affordable and reliable internet services, adequate digital skills, secure digital identification systems, and other critical digital services. These limitations hinder the ability of developing countries to fully participate in the digital economy. Connectivity therefore plays a crucial role in facilitating comprehensive digital transformation. Digital infrastructure and technologies can support research, innovation, and collaborative solutions to global challenges, including those related to public health during the pandemic. Improved connectivity can also help reduce the global digital divide by strengthening networks between individuals, institutions, and governments, thereby enabling more effective collective action.

Addressing these challenges through collective action remains an important focus of the G20 Presidency. Indonesia's leadership of the G20 represents a historic moment, as it marks the first time a Southeast Asian country has chaired the forum. Indonesia's presidency builds upon the initiatives introduced during the 2021 Italian Presidency, which emphasized connectivity and social inclusion while highlighting the importance of

integrating digital connectivity with physical infrastructure development.

The rapid expansion of digital technologies has further emphasized the need to develop an inclusive digital ecosystem supported by strong digital skills and literacy. Indonesia's G20 Presidency therefore prioritizes digital transformation as a strategic tool for accelerating economic recovery and promoting sustainable growth in the post-pandemic period. The pandemic has significantly increased the global demand for digital access in economic and social sectors. For example, global online transactions increased by approximately 42.8 percent during the early stages of the pandemic. However, the impact of the pandemic varied across sectors, with the supermarket sector experiencing growth of approximately 103 percent while the tourism sector experienced a significant decline of around 90 percent.

As the world's largest economies, G20 member states possess significant opportunities to accelerate digital transformation during the post-pandemic recovery period. One potential initiative is the creation of a G20 Digital Innovation Network, which could serve as a hub for collaboration among technology companies, researchers, policymakers, and students in developing innovative digital solutions.

Furthermore, the relationship between digital connectivity and post-pandemic recovery highlights the cross-sectoral nature of digital transformation. Connectivity influences not only economic growth but also education, healthcare, governance, and social development. The increased sense of global solidarity observed during the pandemic also provides a positive outlook for international cooperation aimed at reducing technological disparities between countries.

Several key areas can be identified in efforts to strengthen digital connectivity within the G20 framework. First, there is a need to develop a shared understanding of digital connectivity, including discussions related to the global digital divide, digital rights and responsibilities, digital security, and digital innovation. Addressing differences in digital capabilities between countries and expanding internet access remain essential priorities. Second, initiatives such as the G20 Digital Innovation Network can promote digitalization as a driver of economic growth, job creation, and educational transformation. These initiatives also aim to support micro, small, and medium enterprises (MSMEs) and startups that often face technical and financial barriers in accessing digital markets.

Third, discussions on digital security are essential to ensure the protection of consumers, entrepreneurs, and critical digital infrastructure. Strengthening collaboration between governments, private sector actors, and civil society organizations can help improve resilience against cybercrime and enhance public awareness of digital security issues.

Finally, the Digital Transformation Expo (DTE) initiative highlights the importance of cross-sectoral collaboration in advancing digital innovation. Through this platform, G20 member states can share experiences and best practices in utilizing digital technologies for healthcare services such as telemedicine, improving food security through e-commerce systems, revitalizing tourism through digital platforms, and developing advanced digital infrastructure. These initiatives demonstrate how coordinated policies across health, economic, and security sectors can contribute to global economic recovery and long-term development.

4.3 G20 Initiative and Digital Entrepreneurship

At the beginning of the COVID-19 pandemic in 2020, many businesses experienced severe disruptions as governments implemented lockdown policies to control the spread of the virus. The pandemic not only created a global health crisis but also triggered significant economic disruptions that threatened the sustainability of business activities worldwide.

Many micro, small, and medium enterprises (MSMEs) were forced to close their operations during this period, resulting in large-scale job losses. In Indonesia, data released by the Central Statistics Agency during the second quarter of 2020 indicated that several major economic sectors experienced significant declines due to the pandemic. These included the accommodation and food services sector (92.47 percent decline), other services (90.90 percent decline), transportation and warehousing (90.34 percent decline), construction (87.94 percent decline), manufacturing (85.98 percent decline), and trade (84.60 percent decline). Under such circumstances, governments faced significant challenges in maintaining economic stability and protecting livelihoods.

Despite these challenges, certain types of businesses demonstrated greater resilience during the pandemic. Studies have shown that enterprises operating through digital platforms were generally better able to adapt to

the disruptions caused by lockdown measures. Research conducted by Hadi and Zakiah (2021), Kronblad and Envall Pregmark (2024), and Nurlela (2021) indicates that digital business models enabled firms to maintain operations and reach consumers even during periods of restricted mobility. In Indonesia, Nurlela (2021) found that businesses utilizing digital platforms experienced a tenfold increase in new consumers during the pandemic period.

However, the adoption of digital technology among MSMEs remains relatively limited. Hadi and Zakiah (2021) reported that only around 15.08 percent of MSMEs in Indonesia had adopted digital platforms for marketing and business operations. Many MSMEs still rely heavily on traditional offline sales channels, which made them particularly vulnerable to mobility restrictions during the pandemic. Considering the significant role of MSMEs in generating employment and supporting economic growth, improving digital adoption within this sector remains a critical priority.

Digital entrepreneurship therefore represents an important pathway for economic transformation. Through digital platforms, businesses can reach global markets without the traditional limitations of physical location and operating hours. Digital entrepreneurship encompasses various aspects of business activity, including product design, marketing, customer engagement, financial management, collaboration with partners, and data-driven decision-making.

Entrepreneurship in the digital era offers several advantages, including greater efficiency, lower operational costs, and increased opportunities for collaboration and innovation. At the same time, the risks associated with business failure can be reduced through improved digital literacy, continuous learning, and practical experience.

The development of digital entrepreneurship is also closely linked to improvements in digital infrastructure, particularly the expansion of advanced telecommunications technologies such as 5G networks. The implementation of 5G technology can support broader digitalization initiatives, including e-commerce development and the expansion of the digital economy. Improved connectivity can enable both large corporations and MSMEs to transition from traditional offline business models toward hybrid or fully digital systems.

Moreover, digital infrastructure can facilitate the growth of financial technology (fintech) services that provide greater access to digital financial systems for businesses and communities. Fintech platforms can support MSMEs by expanding access to financing, payment systems, and financial management tools. However, alongside these opportunities, policymakers must also address important issues related to digital consumer protection, cybersecurity, and the reliability of telecommunications infrastructure.

Discussions on digitalization are not new within the G20 framework. Previous presidencies, including those of Germany and China, have already emphasized the importance of the digital economy. This commitment is reflected in several policy initiatives, including the 2016 Blueprint on Innovative Growth and the 2017 Digital Economy Ministerial Declaration, which recognized the potential of digital technologies to support the implementation of the 2030 Agenda for Sustainable Development.

Further progress was made during the G20 Digital Economy Ministerial Meeting held in Salta, Argentina, in August 2018. During this meeting, G20 ministers emphasized the importance of strengthening the digital economy agenda and highlighted the role of digital technologies in supporting the growth of micro, small, and medium enterprises.

Although the contribution of microenterprises varies across countries, digital technologies provide significant opportunities to expand market access and increase participation in both national and international markets. Through improved digital connectivity, micro-entrepreneurs can strengthen their economic role and contribute to broader economic development.

Therefore, discussions within the G20—particularly during Indonesia's presidency in 2022—have emphasized the importance of optimizing the digital economy and promoting the growth of digital entrepreneurship. These initiatives demonstrate how strengthening digital connectivity can contribute to economic recovery and support sustainable development in the post-pandemic global economy.

5. Conclusion

The emergence of the G20 as a central forum in global economic governance reflects the growing need for coordinated international responses to complex economic and technological challenges. As demonstrated

throughout this study, the G20 has evolved from a crisis-management platform into a broader forum for addressing structural issues related to global economic stability, development disparities, and digital transformation. Within this framework, discussions surrounding digital connectivity, digital security, and digital entrepreneurship have become increasingly significant in shaping strategies for sustainable and inclusive economic development.

The COVID-19 pandemic served as a critical turning point that accelerated the global transition toward digitalization. During this period, digital technologies played a vital role in maintaining economic activity, supporting communication, and ensuring the continuity of public services. However, the pandemic also exposed significant disparities in digital infrastructure, technological capacity, and digital literacy between developed and developing countries. These inequalities highlight the importance of strengthening international cooperation to ensure that the benefits of digital transformation can be shared more equitably.

Indonesia's G20 Presidency in 2022 represented an important moment in the evolution of the forum, particularly in emphasizing the role of digital transformation in supporting global economic recovery. As the first Southeast Asian country to hold the G20 Presidency, Indonesia introduced a development-oriented perspective that prioritized inclusivity, technological capacity building, and the empowerment of developing economies. Through initiatives such as the Digital Economy Working Group (DEWG), the Digital Innovation Network, and the Digital Transformation Expo, Indonesia promoted policies aimed at strengthening digital infrastructure, encouraging technological innovation, and supporting the growth of digital-based entrepreneurship.

The findings of this study suggest that digital connectivity plays a crucial role in enabling inclusive economic participation and reducing barriers to market access, particularly for micro, small, and medium enterprises. At the same time, digital security remains an essential prerequisite for maintaining trust in digital systems and ensuring the safe operation of digital economies. Without adequate protection mechanisms and international cooperation in cybersecurity governance, the expansion of digital technologies may generate new vulnerabilities that could undermine economic stability.

Furthermore, digital entrepreneurship has emerged as a key driver of economic resilience, particularly during periods of crisis. The ability of digital businesses to adapt to disruptions during the pandemic demonstrates the transformative potential of technology-driven business models. By supporting the development of digital entrepreneurs, particularly within MSME sectors, governments and international organizations can promote innovation, job creation, and long-term economic growth.

Overall, the Indonesian G20 Presidency illustrates how national leadership within multilateral forums can contribute to shaping global policy agendas. By emphasizing the interconnection between digital connectivity, digital security, and digital entrepreneurship, Indonesia highlighted the importance of building an inclusive digital ecosystem capable of supporting sustainable economic development. In this context, the G20 remains a relevant platform for fostering international cooperation and addressing emerging global challenges associated with digital transformation.

In the future, strengthening global collaboration in digital governance, expanding digital infrastructure, and enhancing digital literacy will be essential for ensuring that digital transformation contributes to inclusive and sustainable development. The continued engagement of the G20 in these areas will therefore play a critical role in shaping the trajectory of the global digital economy.

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