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# A Systematic Review of Social Capital and Resilience in the Post-COVID Era: **Implications for Sustainability**

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#### **ABSTRACT**

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The COVID-19 pandemic has profoundly altered the dynamics of social capital, including trust, networks, and collaborative action within communities. Lockdowns, social distancing protocols, and August 30, 2025 disruptions to conventional engagement modes significantly Available Online: September 01, 2025 impacted these elements, particularly among marginalized populations. This review analyzes the evolving role of social capital in fostering resilience, cohesion, and sustainable recovery in the post-COVID era. Employing a systematic literature review, peer-reviewed journal articles, book chapters, and reputable reports published pre- and post-pandemic were selected through Scopus, Web of Science, and Google Scholar. Inclusion criteria prioritized empirical and theoretical insights relevant to postpandemic contexts. Core dimensions of social capital-trust, reciprocity, and connectedness—have faced challenges, such as erosion of trust and digital inequality. However, digital platforms enabled new modes of engagement and trust-building. Thematic synthesis revealed dual aspects of social capital in recovery—both obstacles and opportunities. Social capital is critical in advancing community resilience and sustainable development. Digital equitable engagement, and community-based programs must be prioritized. A conceptual framework is proposed linking social capital dimensions to post-pandemic recovery and environmental resilience.

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#### 1. Introduction

The COVID-19 virus has swiftly inundated communities, disrupted the global economy, and halted conventional business operations, making its impact on corporate activities increasingly apparent (Ibn-Mohammed et al., 2021). Prolonged lockdowns, business shutdowns, and restrictions on human behavior intended to reduce physical contact have diminished both social and physical interactions, as well as interpersonal relationships, culminating in a worldwide increase in mental health issues. A considerable body of research affirms the importance of social capital (SC) in crisis management across scenarios such as natural catastrophes and pandemics. The shift toward virtual and remote work has undermined in-person interactions, thereby weakening social capital. Reduced social ties adversely affect trust, collaboration, and, ultimately, sustained performance (Bailey et al., 2020; Leonardi, Padovani, & McArthur, 2020). Moreover, societies with elevated social capital outperform those with diminished levels in disaster contexts (Pitas & Ehmer, 2020). Social capital is a general social science concept. It can account for a broad spectrum of things like economic growth (Fukuyama, 1995; Knack & Keefer, 1997; Tavits, 2006), performance of government (Putnam, 1994; Rothstein, 2003), and individual well-being (Helliwell, Huang, & Wang, 2014; Lin, 2001). it is also used in epidemic prevention and control, such as SARS responses, Ebola, and Zika responses (Aldrich, 2012; Dynes, 2006). For instance, Rönnerstrand (2014) illustrated the existence of a positive social capital impact on the intention of individuals to combat the 2009 H1N1 pandemic in America and Sweden. While comparatively minimal time has elapsed since the WHO officially designated COVID-19 as a pandemic in March of 2020, studies already bear witness that social capital is an explanatory variable for regional

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differences in rates of infection with COVID-19 (Bai, Jin, & Wan, 2020; Bartscher et al., 2021; Borgonovi & Andrieu, 2020; Fraser & Aldrich, 2020; Wu et al., 2020). The study suggests that those areas that have higher social capital do well through the pandemic and see infections grow later.

#### 2. Literature Review

#### 2.1. Definitions and Theoretical Foundations

Since the foundational writings of Bourdieu (2011) and Coleman (1988) Coleman (1988); (Coleman, 1990), social capital has been under wide investigation across disciplines. Both emphasized their significance in producing social cohesion and collective action. Bourdieu defined it as the aggregate of real or potential resources linked to the possession of a durable network of more or less institutionalized relationships. Coleman (1990) emphasized its usefulness in facilitating concerted actions through obligations, expectations, and trust lodged in social structures. Social capital has been generally categorized into three dimensions: structural, relational, and cognitive (Nahapiet & Ghoshal, 1998). Structural social capital involves the overall pattern of connections between individuals, who you reach and how. Relational social capital concerns the quality of relationships, including trust and obligations. Cognitive social capital relates to shared meanings and understandings, such as common values and language. These dimensions interact synergistically to foster effective knowledge sharing, collaboration, and innovation (Tsai & Ghoshal, 1998).

#### 2.2. Social Capital Across Levels and Contexts

Social capital operates at multiple levels—individual (micro), group (meso), and society (macro) (Gannon & Roberts, 2020; Kilby, 2002). At all of these levels, it impacts a variety of outcomes ranging from individual health to the quality of national governance. In industrial and organizational settings, social capital improves coordination, knowledge transfer, and performance (Inkpen & Tsang, 2005; Reagans & Zuckerman, 2001). In firms, external networks facilitate the acquisition of knowledge and innovation possibilities, while internal bonding ensures cultural fit and trust (Ebers & Maurer, 2014; Yli-Renko, Autio, & Sapienza, 2001). As noted by Filieri et al. (2014) and Claridge (2018, 2020), relational and cognitive dimensions are particularly significant to enable innovation in knowledge-intensive sectors.

# 2.3. Social Capital in Crisis and Pandemic Contexts

In times of health crises, social capital has been proven to influence readiness at the community level and individual compliance. In past outbreaks—H1N1, SARS, Ebola, and Zika—bigger social capital measures were linked with better health-protective practices (Blair, Morse, & Tsai, 2017; Chuang et al., 2015; Vinck et al., 2019). Rönnerstrand (2014) linked trust in public institutions and solidarity with a readiness to use vaccines and health recommendations. COVID-19 research also supports this relationship. Regions with strong social capital demonstrated lower infection rates and better social distancing adherence (Bai, Jin, & Wan, 2020; Barrios et al., 2021; Bartscher et al., 2021). However, digital inequalities and disrupted networks also emerged as threats, particularly for marginalized groups(Dhivya et al., 2023; Ragmoun, 2023, 2024; Ragmoun & Alfalih, 2024).

#### 2.4. Digital Inequality and Marginalization

The shift to digital communication amplified pre-existing inequalities in access to information, technology, and networks. Vulnerable populations—such as the elderly, rural communities, and economically disadvantaged groups—faced barriers in accessing health updates, remote services, and social support (Han, Yoon, & Chae, 2020; Trapido, 2019). This digital divide undermined trust-building and collective engagement. Weak connectivity hindered timely information flow and decreased participation in community-level recovery initiatives. Hence, rebuilding social capital post-pandemic necessitates addressing digital infrastructure and literacy gaps(Ahmed, Azhar, & Mohammad, 2024).

#### 2.5. Identified Gaps in the Literature

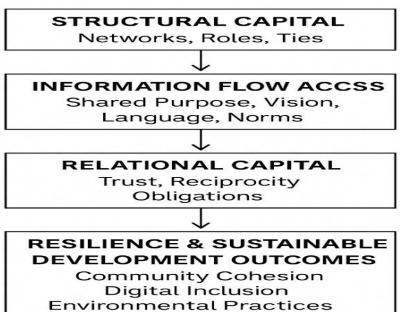
Despite a rich body of work, several gaps remain. Geographic and contextual specificity is limited; most studies are concentrated in developed economies, with minimal insights from the Global South. Environmental and sustainability linkages are underexplored, particularly regarding how social capital fosters ecological resilience post-COVID. Comparative and empirical case studies are scarce—there is a need to examine how diverse communities have used or lacked social capital in recovery. Integrated frameworks connecting social capital with digital

equity, sustainability, and governance responses are largely absent. A concise subsection on these gaps strengthens the contribution clarity and highlights areas for future inquiry.

# 3. Dimensions of Social Capital

Accurately measuring social capital requires capturing how networks facilitate trust, reciprocity, and collective action. For this review, the established framework by Nahapiet and Ghoshal (1998) is used, which identifies three core dimensions: structural, relational, and cognitive social capital. These dimensions offer a holistic view of how organizations and communities mobilize resources and coordinate actions. Structural Social Capital refers to the impersonal configuration of linkages between people or units. It includes network ties, network configuration, and appropriate organizational architecture. In practical terms, it captures who knows whom and how often they interact (Claridge, 2020; Nahapiet & Ghoshal, 1998). Cognitive Social Capital encompasses shared language, codes, narratives, and collective visions. This dimension helps actors interpret meaning and build understanding across contexts, enabling smoother knowledge flows and reduced friction in collaboration (Tsai & Ghoshal, 1998). Relational Social Capital includes trust, norms, obligations, and expectations that arise from social relationships. It supports the reliability of information, reduces opportunism, and underpins voluntary cooperation (Gabarro, 1978; Granovetter, 1985; Han, Yoon, & Chae, 2020). These three dimensions are not working independently. Their interaction speeds up trust generation, knowledge sharing, and adaptive action—principles of resilience and innovation. As an example, the high-density relational networks can strengthen trust, and in turn, cognitive consonance and augmenting functionality of structural links. The next figure is a conceptual one to demonstrate this interaction between the social capital dimensions and how they facilitate post-COVID recovery and sustainable development:

Figure: Conceptual Framework Linking Social Capital to Post-COVID Resilience and Sustainability.



Source: (Pastoriza, Ariño, & Ricart, 2008)

# 4. Methodology

The study uses the systematic literature review (SLR) method to combine academic literature on the role of social capital for the post-COVID-19 period. Four general steps of applying SLR were: defining the scope of the review, identification and selection of studies, data analysis, and synthesis of the evidence.

# 4.1. Scope and Objectives

The review aimed to explore how social capital dimensions underpin community resilience, digital inclusion, and sustainable COVID recovery. It was interested in social capital at the organizational and community levels, cutting across sectors with interest at environmental, governance, and public health interfaces.

# 4.2. Data Sources and Search Strategy

A comprehensive search was conducted using Scopus, Web of Science, and Google Scholar between January 2020 and October 2023. The following Boolean string guided the search: ("social capital" AND "post-COVID" OR "COVID-19" AND "resilience" OR "sustainable development" OR "community recovery" OR "digital divide")

#### 4.3. Inclusion and Exclusion Criteria

Inclusion criteria includes peer-reviewed journal articles, book chapters, and institutional reports; studies published in English; focus on social capital in the post-COVID context (theoretical, conceptual, or empirical); relevance to sustainability, resilience, or digital connectivity. Exclusion criteria includes studies published before 2020 do not offer conceptual relevance to COVID-19; grey literature lacking scholarly rigor; articles focused solely on clinical or biological aspects without social implications.

#### 4.4. Study Selection and Data Extraction

The initial database search yielded 243 publications. After removing duplicates (n = 52), 191 articles were screened based on title and abstract. Of these, 87 full-text articles were assessed for eligibility. Finally, 41 articles were included in the synthesis. Data from each article were extracted using a thematic coding template covering the dimensions of social capital, context, methodology, findings, and implications.

Figure 2: PRISMA Flow Diagram (Summary)



#### 4.5. Thematic Analysis

A thematic analysis approach was used to synthesize findings across the selected literature. Codes were organized under pre-defined themes—such as trust erosion, network restructuring, digital marginalization, and community innovation—allowing patterns to emerge across disciplinary boundaries.

# 5. Contextual Relevance: Case-Based Illustrations and Linkages To Sustainability

To contextualize the theoretical insights on social capital, this section presents illustrative examples from diverse global settings. These photos illustrate how, in recovering from COVID-19, societies have utilized or failed to utilize social capital—focusing on its role in sustainable development, energy transitions, and climate resilience.

#### Case 1: Kerala, India – Community-Led Resilience

Kerala demonstrated successful pandemic control through strong neighborhood-scale social networks. Subnational governments, with the help of women collectives (Kudumbashree),

leveraged available relational and cognitive capital to organize access to food, monitoring of health, and elder care. Technology-supported decentralized action but was premised on high social trust and civic activity. The result was a fairly low infection rate and rapid local quarantine. Sustainability Insight: Kerala's success reveals to what extent community systems enabled by digital can enhance not just public health improvements but even natural disaster adaptive capacity in the longer term.

## Case 2: Northern Italy - Disproportionate Outcomes due to Fragmentation in Trust

On the other hand, economically prosperous North Italy, with a sound public health infrastructure, experienced high mortality rates during the initial phases of 2020. Evidence Barrios et al. (2021); Bartscher et al. (2021) suggests that institutional trust deficits and weak inter-group networks, low in cohesion, contributed to the failure of containment policy adherence. Misinformation, lack of trust, and sluggish coordination exhibited weakness in the region despite economic prosperity. Sustainability Insight: The lack of a relational and cognitive capital weakened collective action, illustrating how social solidarity is not only worth it for health resilience but also for cooperation on energy transition and environmental governance.

# Case 3: Colombia – Marginalized Communities and Digital Inequality

Where school closures and service disruptions in rural Colombia were greatest, digital exclusion was highest. Social capital was lost as the non-digital were marginalized from public debate as well as from peer networks of assistance. Digital exclusion translates to effects on education, earnings, and access to health information. Sustainability Insight: It shows that bridging capital—the capability to bridge technology gaps—is needed for inclusive sustainability, particularly in the Global South. Investments in local digital infrastructure and trust-building mechanisms are needed to avoid reinforcing structural inequalities.

#### Case 4: Japan - Trust in Governance and Institutional Capital

Japan exhibited relatively effective risk communication and behavioral compliance, which scholars attribute to high generalized trust and coordinated media-state messaging. Here, linking social capital (trust in institutions) facilitated behavioral adaptation. Even in urbanized areas, civic networks remained active through digital forums, ensuring social support continuity. Sustainability Insight: Japan's case demonstrates how digital networks, underpinned by trust in institutions, can promote climate literacy and environmental stewardship, vital for just transitions and disaster governance. These illustrations collectively reinforce the critical role of social capital in adaptive governance, inclusive recovery, and environmental resilience. Communities with pre-existing trust structures and communication pathways were better positioned to withstand pandemic shocks and are likewise better prepared for climate-related disruptions. Incorporating case-based analysis enhances the real-world relevance of the review and aligns with the journal's focus on energy, environment, and sustainability.

#### 6. Conclusion

The COVID-19 pandemic has introduced unprecedented disruptions to social systems, laying bare the fragility of many societal networks and the deep interdependence between public trust, collective action, and systemic resilience. As this review has demonstrated, social capital remains an indispensable asset, not only for navigating immediate pandemic-related challenges but also for enabling long-term sustainability and adaptive capacity in the face of future shocks, including climate-related disruptions. Social capital's core dimensions—trust, reciprocity, and connectedness—were tested during the crisis. While many communities experienced fragmentation, others leveraged pre-existing networks and local institutions to facilitate rapid response and inclusive recovery. The adaptive use of digital technologies to bridge social divides emerged as a key trend, although disparities in access highlighted enduring structural inequalities. To optimize the capacity of social capital in building community resilience and supporting sustainable development, the following policy and governance recommendations are proposed. Investment in Digital Infrastructure and Equity strengthens digital inclusion, especially in rural and marginalized communities. Local governments and NGOs should prioritize digital literacy programs and affordable access to ensure that all members can participate in virtual networks and public service systems. Supporting Local Civic Organizations and Networks encourages and funds community-based organizations that act as conduits of trust and reciprocity. These groups are often the first responders during crises and can mobilize both bonding and bridging social capital to address collective challenges. Embedding Social Capital into Disaster Risk Governance is recommended. Social capital metrics should be integrated into disaster preparedness frameworks, including climate resilience planning and public health emergency protocols. Mapping trust networks and institutional relationships in advance enables quicker mobilization and targeted interventions. Fostering Multi-Level Trust and Institutional Transparency strengthens linking social capital by enhancing transparency and accountability in governance. Trust in institutions is vital for policy compliance, especially in climate adaptation strategies, energy transition initiatives, and health campaigns. Encouraging Cross-Sector Collaboration creates platforms where the private sector, government, civil society, and academia collaborate to co-design resilience strategies. Social capital flourishes in environments that promote shared goals and mutual accountability. Promoting Participatory Communication Models ensures effective communication—clear, inclusive, and culturally attuned—is central to building and sustaining social capital. Governments and media outlets must adopt two-way communication strategies that empower communities to shape their narratives and solutions.

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