The Role of Social Capital in Disaster Management Studies

Peran Modal Sosial dalam Studi Manajemen Bencana

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ARTICLE INFORMATION

ABSTRACT
Recent studies explain that the COVID-19 pandemic has caused a complex situation for government policies. This study aims to see the capabilities of social capital during the pandemic, as an alternative to effective disaster management. This article is written based on qualitative research principles, through literature analysis of 35 articles obtained from the Scopus database on social capital and handling of COVID-19 cases. Furthermore, the analysis was carried out using the VosViewer application (density and overlay visualization) to see the network of interrelated and relevant concepts. Topics related to this explain that disaster management studies recognize that social capital has an important role in understanding community-based disaster management efforts, especially during the COVID-19 pandemic. The research trend leads to a typology of social capital that is similar in each community even though it is in different regions, the findings are also followed by a trend that community social capital actually strengthens and is very persuasive in disaster situations, even quite effectively contributing to the process of dealing with the impact of disasters, especially for community social recovery. This research study contributes to the approach to formulating disaster risk mitigation policies based on community social capital capacity.

ABSTRAK
Studi terbaru menjelaskan bahwa pandemi COVID-19 telah menyebabkan situasi yang kompleks bagi kebijakan pemerintah. Penelitian ini bertujuan untuk melihat kapabilitas modal sosial selama pandemi, sebagai alternatif penanggulangan bencana yang efektif. Artikel ini ditulis berdasarkan kaidah penelitian kualitatif, melalui analisis literatur pada 35 artikel yang peroleh dari database Scopus tentang modal sosial dan penanggulangan kasus COVID-19. Selanjutnya, analisis dilakukan menggunakan aplikasi VosViewer (visualisasi kepadatan dan overlay) untuk melihat jaringan konsep yang saling terkait dan relevan. Topik terkait hal ini menjelaskan bahwa studi manajemen bencana mengakui bahwa modal sosial memiliki peran penting dalam memahami upaya penanggulangan bencana berbasis komunitas, terutama pada masa pandemi COVID-19. Tren penelitian mengarah pada tipologi modal sosial mirip di setiap komunitas meski berbeda wilayah, temuan juga diikuti dengan trend bahwa modal sosial komunitas justru menguat dan sangat persuasif dalam situasi bencana, bahkan cukup efektif berkontribusi bagi proses penanggulangan dampak bencana khususnya bagi pemulihan sosial masyarakat. Kajian penelitian ini berkontribusi bagi pendekatan formulasi kebijakan mitigasi resiko bencana yang berbasis kapasitas modal sosial komunitas.

Introduction

Recent studies explain that the COVID-19 pandemic has put governments in many countries in a confusing situation. Each country has responded to the pandemic as a disaster differently. Moreover, there is a possibility that another pandemic will happen soon. Many studies reveal that the COVID-19 pandemic also shows the good and bad of disaster management response by policies worldwide. Likewise, what happened in Indonesia at the beginning of the pandemic was that the Indonesian government stuttered and denied the level of urgency of the pandemic and took the necessary steps (Khoerunisa and Noorikhsan 2021). Moreover, the government's response to the crisis was prolonged. (Agustino 2020).

Indonesia is one of the countries that always faces disasters, including floods, forest fires, volcanic eruptions, cyclones, earthquakes, tsunamis, and the COVID-19 pandemic, which began in early 2020. In management process, the Indonesian government has guided by disaster management policies through Undang-Undang No. 24/2007 about disaster Management. This policy instrument guides pandemics from the central government to local governments.

This study brings together a collective number of literature criticizing the government for disaster management, starting with an overly administrative approach, unpredictability, and lack of a sense of crisis excessive political interests (Agustino, 2020). People also respond oppositely to the situation that the government is doing. In Addition, in handling COVID-19, government policies experience misalignment between policies made by the central government and local government policies (Juaningsih dkk., 2020).

On the other hand, the impact of the pandemic, which was initially a health issue, has also continued to be an economic issue (Yamali and Putri 2020) and has become an arena for criticism of government responsiveness through formal policies (Juaningsih et al. 2020; Saraswati 2020; Agustino 2020). In Addition, the birth of many policies in a fast and short period shows the proliferation periods by the Indonesian government at that time. (Meilinda 2020).

While acknowledging the impact of the COVID-19 epidemic on governance in Indonesia, it is important to note that the government has implemented numerous regulations, allocated budgets, provided capital support to small entrepreneurs, and offered social aid to individuals facing poverty. Furthermore, there have been successive occurrences of poverty-induced skepticism, stemming from the neglect of expert advice, which has therefore led to a decrease in public confidence in the government. (Agustino, 2020; Goldfinch dkk., 2021; Khoerunisa & Noorikhsan, 2021).

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Interestingly, changes are also occurring in the realm of governance, which has implications for public health systems that are often hampered by political affairs, including disaster governance, which ultimately changes and is very dynamic following the environment (Choi, 2020; Jagannathan dkk., 2021; Júnior & Morais, 2020; Zhou, 2020). However, this situation has not been following by a decline philanthropic movement in Indonesian communities.

The dynamics During the pandemic calamities, Indonesian society saw a noteworthy phenomenon marked by social solidarity, gotong royong (cooperation), empathy, communal relations, and a culture of mutual assistance. This circumstance has led to the emergence of numerous humanitarian initiatives, social volunteerism, and communal fortitude in response to the pandemic. (Sunarno and Sulistyowati, 2021). Community involvement in disaster management in Indonesia is an integral part of government policy. (Ali et al. 2019), and has been reviewed by a significant number of articles, e.g., government and Collaboration (Mubah 2013), Community Movement Social Media Movement (Damayanti 2020), and the Weakness of local government response to crisis management that requires collaboration with multiple stakeholders (Mustari et al. 2021). Nevertheless, the importance of disaster management extends beyond first perception, thus necessitating research to determine the involvement of both governmental and non-governmental groups in order to enhance the effectiveness of disaster management.

Although the government has declared the need for community involvement in disaster management (Dicky Pelupessy 2020), Evolutionary change occurs when the issue's dynamics are changing so swiftly that official government policies are usually the only tools used to construct and evaluate catastrophe management plans. Social networks and ties among government institutions can effectively shape disaster preparedness and reaction. It is generally acknowledged because of the informal emergency response, and these institutions have not adequately assessed or considered "social capital."

Some literature refers to social capital as social networks within same communities. The definition of this idea in social science is the networks and norms that allow individuals to collaborate. (Portes 2009). Social capital can be understood as how social networks, institutional trust, and social trust function within a community. (Wijaya, Sa'ban, and Nastia 2024). However, social capital can also be used to gauge one's aptitude for taking part in the community. (Dakey et al. 2022), and make use of it as a weapon to organize more broad-based group interests (Ighedosa 2020). It is significant to remember that a range of policies

are interested in social capital, especially when comprehending the network of interactions that communities can have inside and outside their institutions.

The World Bank (n.d.) defines social capital as "the institutions, relationships, and norms that shape the quality and quantity of people's social interactions." Trust and the guiding principles of interactions are included in this definition of social capital (Aldrich and Meyer 2015b). At multiple levels, social networks are essential in creating the social capital and legal, political, and financial infrastructure that support social-ecological resilience (Adger 2003). On the other hand, these dynamics of social capital are crucial to the growth of more transparent and inclusive governance.

The three categories of networks in social capital is bonding, bridging, and linking—help to clarify their character and quality. Bonding social capital refers to horizontal relationships among network members who have similar socioeconomic status or come from the same ethnic background. (Putnam 2000). Bridging social capital is the relationship between people who are different in age, socioeconomic status, race/ethnicity, and education. (M. D. L. Melo Zurita et al. 2018). "linking social capital" describes communities' hierarchical connections with organizations and people with comparatively more authority. Communities with vertical solid linkages are typically defined by a high degree of government-community relations or by the social capital that enables them to obtain public resources and services (Rayamajhee and Bohara 2021).

Thus, social capital that continuously meets all network indicators will improve the community's capacity for interaction, particularly when addressing ensuing social problems. This research examines the dynamics of social capital within this framework to explain community resilience. Community resilience is a multifaceted aspect of society that is c to social structures and intra-community interactions. Consequently, a quality or attribute of a community that develops from dynamic processes and possible outcomes is community resilience (Pfefferbaum, Van Horn, and Pfefferbaum 2017).

Several studies demonstrate the positive correlation between a community's overall social capital and its resilience, particularly regarding involvement in the disaster management process. (Adger 2003). On the other hand, building community resilience in disaster risk management has been the agenda of many researchers. (Ali et al. 2019; Al-mueed et al. 2021; Allen 2006; Kapucu and Sadiq 2016). That research indicates that the ability of the community to build social capital plays a role in how the community handles social issues brought on by catastrophic events.

Based on that, this article establishes that communities can actively develop their resilience and become an essential indicator for social sustainability schemes. (Magis 2010). Regarding disaster management policy, social capital can strengthen community responses to issues and provide crucial ties to the larger community at different phases of emergency response (Bhandari 2014). Hence, research that takes into account the social capital of local communities is necessary, as it shows that a robust social capital will boost public participation and involvement in decision-making processes—a crucial step in promoting successful adaptation (Akyun and Rochman 2022), Offer a more flexible framework for overseeing regional development (Johnson et al. 2020), and facilitate more effective collective decision-making (Nakagawa and Shaw 2004). To help with disaster policy-making at the regional level, qualitatively examining several articles that address disaster management will have broad implications in the framework of disaster planning management based on community social capital.

This research aims to advance the patterns of stakeholder collaboration in disaster management. In this case, disaster management sectors exist within organizations, society, and the environment. As this subject grows, ideas about disaster governance, teamwork, and social capital capacities will be shaped in a long-lasting way. This study aims to bridge the gap in sociological research on communities and their participation in disaster management pattern. To understanding collaboration networks in disaster management requires a more inclusive qualitative interpretation, that includes local government and their local communities. This research aims to understanding of posibilities disaster governance in Indonesia by analyzed some published article from various scholar as well as the keywords in the roles of social capital and community participation in relevance with disaster management system. In the other hand, the findings of this study can contribute to develop the concept of disaster governance from social capital perspective, expecially in indonesian local communities pattern.

In Addition, this study uses a multidisciplinary approach combining social science and government science. With that means, studies can be examining how local government can manage local people with effective in maintain the dynamics phenomena of disaster, as well as how to be designing local policies to lessen their consequences for society. Therefore, this study can evaluate several sides the concept of disaster management strategy and can use that to become positive input to create disaster governance policy is more successful, as well as to guarantee disaster risk management concept must be recreated through an open, transparent, and participatory process.

Method

The main study employed a qualitative research approach. However, to support the method, this study uses a systematic literature review to provide an overview of social capital in disaster management policies. The implementation of this research begins with planning the study, identifying and evaluating research, extracting and synthesizing data, reporting thematic and descriptive findings, and utilizing these findings to inform research and practice (Susanto et al. 2023).

Through a literature review, the author intends to provide a literary outlook on the importance of social capital in disaster management during Covid-19 pandemic (the 2020-to-2023-year period). Data sources are divided into two categories: primary data sourced from literature reviews on Scopus articles with the keywords are social capital, disaster management, and the COVID-19 pandemic. Ultimately, 35 publications were analyzed by filtering the title/abstract and keywords. The table above explains the search process using inclusion and exclusion criteria. Furthermore, the analysis was carried out using the VosViewer application (density and overlay visualization) to see the network of interrelated and relevant concepts. Secondary data sourced from policy data and reports on the handling of the COVID-19 pandemic sourced from data from government agencies and local governments. To emphasize the scope of the analysis of the community and the social capital process that takes place. The data for this study are as follows:

Table 1. Research Data Classification

Types of Data	Source	Roles
Primary Data	Regulation	To provide policy for public participation in addressing the Covid 19 pandemic in Indonesia
	Scopus Article	To provide a study of social capital, disaster management, and networking of articles carried out through network analysis on the VosViewer application.
	Mass Media	To provide information and data on community roles in Indonesia's fight against Covid 19.
Secondary Data	Policy Data and Covid-19 Pandemic Control Report	Provides data on the role of communities in counteracting the social and economic impact of the COVID-19 pandemic.
	Social Media Community	Providing information about community activities, particularly concerning the COVID-19 pandemic.

(source: data analysis, 2023)

Thus, research analysis is carried out with observing the studies who explain local government policy in fight against the COVID-19 pandemic in their area and how local community participating to that policy. An article search was conducted using the Scopus database. Scopus has an extensive scope, and most journals are written in English. The situation is intended to understand disaster management systems through the perspective of the role of social capital in disaster response and recovery processes through the diversification of stakeholders (Kumari and Frazier 2021). This study also uses the content analysis of Crow and Berggren's theory (2014 in Mustari et al. 2021), which is intended to analyze issues relevant to both local governments and communities. Data treatment is carried out through a mixed method approach to data collection and analysis; main data is collected through semi-structured interviews, and the secondary data source is a Scopus journal article with the keywords Disaster Governance and Social Participation. Several experts have conducted studies such as this to explore social capital in the socio-cultural relationships that shape disaster management and to understand the changes that occur to facilitate "shared social resources" in disaster governance (M. de L. Melo Zurita et al. 2018). Therefore, analysis in this study is held by explain the relevant typology of social capital as path of alternative to disaster management program and ensure that social capital elements can help alternative approaches to disaster governance in local government.
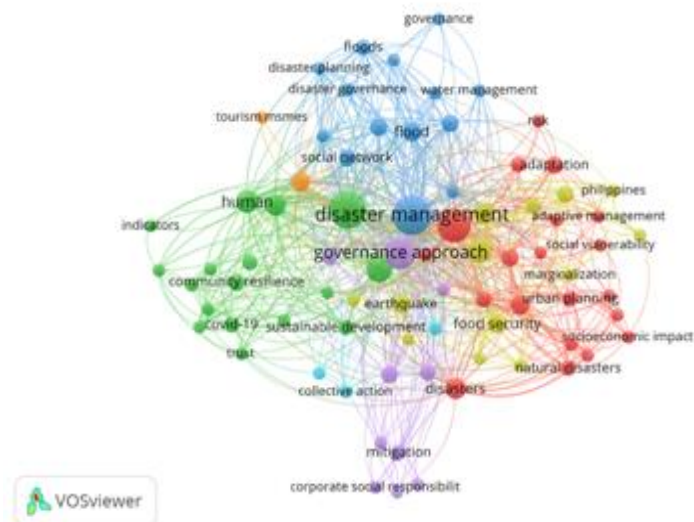
The analysis used existing social capital dimensions to begin, and by carefully examining the data, we attempted to build these dimensions. The result of the 35 selected articles were examined for recurrent themes, and the social capital dimensions of each piece were compiled using quotations. The secondary data used in the study came from the COVID-19 Accelerated Treatment Task Force, the Ministry of Health Republic of Indonesia (kemenkes.go.id), and other relevant media. The Vos Viewer software is also used to help analyze the network of pertinent research articles to facilitate the construction of narratives and concepts related to disaster management.

Result and Discussion

Social Capital and Disaster Management

The Vos Viewer application elaborates on Scopus database search results with social capital and disaster management partners in this section. Thus, it can explain the relevant studies to this article. Based on this phase, the article obtained a total of 35 articles through the Scopus database through keywords containing the words <disaster management> and <social capital> in the period of publication from 2013 to 2022, as well as the restriction of

advanced searches through the case <covid 19>. So, based on the results of Vos Viewer for Network Visualization or keyword correlation in several articles that discuss it can be observed in Figure 1.

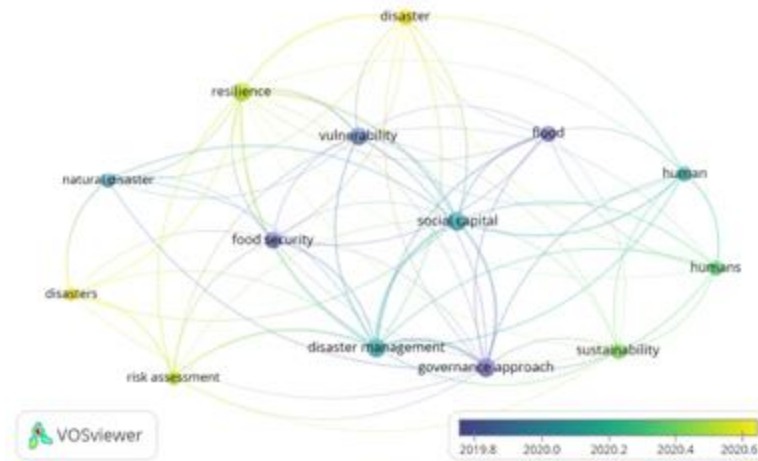**Gambar 1. Network Visualiation Based on Popular Keywords.**

According to Figure 1, using network analysis, the research addressed issues relevant to disaster management in 7 clusters with the most discussed keywords, and the interrelated networks in 7 clusters are catastrophe management and governance approaches. In contrast, the keywords relevant to other clusters are community resilience, social networks, adaptive management, collective action, and sustainable development. This result indicates the intensive attention of researchers in several analyzed articles that disaster management approaches require openness and inclusiveness to a wide range of stakeholders and sociological approaches.

The latest research provides quite different dynamics of study concerning governance that needs to pay attention to its political agenda in dealing with natural and non-natural disasters such as famine and war. (Reininger et al. 2013; Shoji and Murata 2021; Zahnow et al. 2019; M. de L. Melo Zurita et al. 2018; Rozi, Ritonga, and Januar 2021). On the other hand, disaster crises are merely policy issues that are often approached through administrative solutions rather than building more technical solutions. At the same time, governments that are open to public participation or involve multiple stakeholders have the potential to create long-term effects (Aldrich and Meyer 2015a).

Thus, the researchers in his article indicate a transformation of the impact of disasters on government and public administration disruptions, with demands to pay attention to the possibility of multiple actors from different governmental and non-governmental

backgrounds being directly involved. (M. de L. Melo Zurita et al. 2018; 2015). The researchers also anticipated elements of public participation or role, and the public needs to pay attention to its capacity to disaster prevention and response programs.

Gambar 2. Overlay Visualiation based on Popular Keywords

Next, this article calculates the frequency of significant keywords in research analysis, such as social capital, through the Vosviewer application on Overlay Visualization, which can be observed in Figure 2. Based on these conditions, it can be explained that several researchers provide a social capital framework as a 'power source for collective action and tenacity (Reininger et al., 2013), more effective response (Melo Zurita et al., 2018), as well as to design a public health framework for disaster response that advances resource efficiency and sustainability (M. de L. Melo Zurita et al. 2015; Cornes, Cook, and Satizábal 2018; Guo, Sim, and Ho 2020; Schmidthuber, Ingrams, and Hilgers 2021; Zahnow et al. 2019; Rustinsyah, Prasetyo, and Adib 2021), as well as becoming a government approach in the post-planning reconstruction program (Chan dkk., 2019; Li & Tan, 2019; Tammar dkk., 2020; Tan-Mullins dkk., 2021). Thus, through these findings, the community's social capital is transformed into a wider one that is not only an internal asset to the community. But it can also be a potential that governments can exploit within the framework of efficiency and effectiveness of public policy implementation, especially in the disaster management process in government.

It is only necessary to acknowledge that several articles also emphasize the vulnerability to the social capital interpretation. The community that is the basis of the social capital network and the involvement of the community have different meanings due to the many possible definitions of "community" and the various models for "participation" understood. (Júnior & Morais, 2020; Rifkin, 2014). Such vulnerabilities, too, can be found in studies that explore public participation in government policies for disaster management,

thus requiring further knowledge of community-based participation models and social capital. (Astill et al., 2019; Berke dkk., 2008; Chan dkk., 2019; Curato & Calamba, 2020; Gultom, 2016; Jahangiri dkk., 2011; Kumari & Frazier, 2021; Li & Tan, 2019; Obrenovic et al., 2020; Pfefferbaum et al., 2017; Rustinsyah dkk., 2021; Shoji & Murata, 2021; Tammar dkk., 2020; Wu, 2020; Zahnow dkk., 2019; Zhang dkk., 2013).

Such vulnerabilities have become possible owing to local cultural interconnections, community values, and perspectives that can contribute to the dynamics of community contributions to the wider social problem; the results of data exploration are carried out as a process of mapping public participation and disaster management policies. Thus, the opportunity for a more in-depth study of the social capital element in the context of the COVID-19 pandemic disaster or any other possible disaster that may arise later in the day. So, this study also draws attention to community collaboration schemes to enable the involvement of governmental and non-governmental agencies in disaster management and collaborative governance schemes in general. (Ansell & Gash, 2008; Emerson dkk., 2012; Emerson & Nabatchi, 2015) .

Social Capital and Community Resilience

Based on data released, the Institute for Development of Economics and Finance (INDEF) noted a high negative sentiment of respondents toward the Indonesian government, with 66.28% against the Covid-19 pandemic program. Public confidence in government is an essential element in the success of risk communication. Soining public confidence in the government is absolute in disaster management.

Social capital is a set of norms, values, beliefs, relationships, and networks built within a society that enable individuals and groups to work together toward common goals. (Lee and Kim 2021). On the other hand, social capital can also be a means for community groups to exchange knowledge, trust, cooperation, and effective leadership (Wijaya 2016; 2017; Wijaya and Salam 2019). Of course, in disaster management, social capital strengthening can be used to increase public participation in disaster mitigation and response efforts.

Another research explains the dynamics of public participation in the past COVID-19 pandemic, where the most prominent study is about how people are engaged in the fight against COVID-19 pandemic and its impact on society. (Melo Zurita et al., 2015). This conceptualization is relevant given the social risks arising from the COVID-19 pandemic, which tends to be resolved through policy or government administration approaches, let

alone political scenarios. (Júnior and Morais 2020). Even in a more straight forward community context, individual motives such as personal safety are a strong reason for the community to participate in a Covid 19 pandemic. (Wijayanto, Ahmad, and Mutiah 2023). However, the involvement of the public supports the health system and relies on the mobilization of the population to help overcome or mitigate the impact.

On the other hand, the public movement to join and counter the effects of the COVID-19 pandemic in Indonesia has grown with various models ranging from the brutal to the powerful social philanthropy movement. It gives the impression that Indonesian society is still very compact in humanity. However, it should also be acknowledged that public confidence in science and government has been degraded, which has become difficult to control and directly affects the spread of the COVID-19 pandemic. Some studies explained the situation because, first, the government's disaster management and response programs tend to be bureaucratic, so often failing to assess the needs of the community, weakening the potential of local resources and capacity, and in some cases, even increasing public vulnerability, second, several formal organizations appointed to carry out a series of COVID-19 pandemic response policies are not so clear about their respective jurisdictions. (Ali et al., 2019).

Study observes a situation like this in the dynamics of local communities in several article, which were involved in the fight against the COVID-19 pandemic some time ago. Concerning social capital, such activities are observed as part of a networking form in social capital that can be described in Table 2 as follows:

Table 2. Network Dynamics in Social Capital

Type of Social Capital	Meaning	Action
Bonding	The community can building social solidarity, empathy, and good communal relations, which were achieved by collecting donations and helping the affected UMKM.	The role of various communities during disasters is seen from various sectors, including the Youth Community, Dasawisma, PKK, Kitabisa.com, and a number of mass organizations to collect donations that are distributed to disaster victims. This model shows collective solidarity based on empathy, although after donating, supervision of the distribution method to disaster victims is not reported to public.
Bridging	Communities build relationships with other communities through collaborative activities to provide health care, self-quarantine, education, and social assistance.	The role of various professional and professional groups is also seen from the involvement of various communities to become disaster volunteers. In fact, students participated in providing energy to support the tasks of professional staff in the field, even though they did not have competence in that field, but their presence helped in mobilization and moral support for officers and disaster victims.

Linking	The public build a network with the government to facilitate dealing with the COVID-19 pandemic.	Although this role is more in the form of criticism of the government's duties regarding disasters, the existence of groups such as humanitarian NGOs makes it possible to monitor the disaster management process and provide the public with a lot of information regarding disaster victims, which allows for continued assistance to be provided to the victims.

(Source: Data Analysis, 2023)

Based on the description data in Table 2, it can be describe that the Covid 19 pandemic has stimulated the transformation of the social protection in its various ways that community networks can reach out (Mahsun 2023). Even to a more micro level, that is, to the resilience of family-based communities (Indrastuti and Herawati 2023). While social capital has dominated social networks and public confidence since the pandemic, inter-member confidence has decreased in some areas. (Pandu Primadata et al. 2023). However, under such conditions, it can be described that the COVID-19 pandemic can influence public health but indirectly impacts the community's social capital, which is becoming increasingly intense.

Some article has been explain further attention by the disaster management policy so that a resilient and adaptive community will be more supportive to be followed up. Through the community's vigilance in its various issues, it will be able to contribute positively to governance at the community level. However, the community's vulnerability also needs to be noted; as the more complex society becomes, the social networking models that are formed will also be more vulnerable to the dynamic growth of the society, the level of education, income, and the influence of information technology.

In conclusion, the study recommends that Community Participation should be the focus of government in disaster management, given that the role of the community can always be the first aid for post-disaster response through social solidarity actions. Analysis using social capital describes that a well-organized and multi-functional community can provide a variety of public services to citizens based on substantial social capital. Thus, institutional disaster management opportunities by involving communities can build public confidence, reduce disaster risk, decrease bureaucratic protocols for disaster responsiveness, and improve preparedness. From the limitations of this study, attention is paid to the elements of trust and interdependence that need to be developed in social networks to produce effective mechanisms for effective disaster management anyway.

Conclusion

Understanding social capital during disasters policy is crucial in this decade, but this cannot be sufficiently stressed. Even if they cannot be prevented, natural catastrophes can be managed in a manner that reduces their effects. This research includes fostering social norms in social capital in communities to prepare for emergencies during disaster phenomena. The results of this research provide insights into the social capital in communities during and after disasters. This study contributes primarily to providing an overview of the relationship between social capital in diverse communities in terms of region and socio-cultural background to the dynamics of disaster risk management, especially as exemplified during the Covid-19 pandemic.

Beside from all studies who has been analise in this research, it can explain the government has not yet established policies or discourse surrounding disaster management or community participation in policy formulation. Nevertheless, the community's involvement is consistently evident in providing first assistance during the crisis management process, particularly in the context of the COVID-19 pandemic, by means of extensive acts of social solidarity. In the midst of the COVID-19 pandemic, which has led to a worsening in public health and economic situations, social capital at many levels of society is getting stronger and more adaptable. Hence, implementing a disaster management policy that incorporates the community's social capital potential can serve as a viable alternative to inclusive government. The community's social capital has been found to be advantageous in crisis management efforts, despite the fact that communities in different regions have nearly identical forms of social capital networks. This research gives the government a better grasp of social capital in communities and how to use them to promote the creation of plans and regulations that will increase policy disaster preparedness in action.Therefore, this study indicates that disaster management policy should prioritize the community's ability to engage and contribute. The limitations of this research become from the scope of the study, a number of articles which also raise the theme of disaster management, but do not explicitly link it to local government policies and community participation. On the other hand, further research can explore further the possible field technical weaknesses of the application of social capital for the formation of disaster governance in local government, as well as some interesting issues regarding the local wisdom of the community are packaged in a number of annual traditional rituals, which are intended as collective efforts to prevent various possible disasters that could arise, or they are called "bala".

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References

Adger, W Neil. 2003. "Social Capital, Collective Action, and Adaptation to Climate Change." *Economic Geography* 79 (4): 387–404. https://doi.org/10.1111/j.1944-8287.2003.tb00220.x.

Agustino, Leo. 2020. "Analisis Kebijakan Penanganan Wabah Covid-19 : Pengalaman Indonesia Analysis Of Covid-19 Outbreak Handling Policy: The Experience Of Indonesia." *Junal Borneo Administrator* 16 (2): 253–70.

Akyun, Annisa Talazur, and Gina Puspitasari Rochman. 2022. "Kapasitas Adaptif Masyarakat Pesisir Terhadap Bencana Abrasi Pantai Berdasarkan Sumber Daya Sosial." In *Bandung Conference Series: Urban & Regional Planning*, 2:787–93. Unisba. https://doi.org/https://doi.org/10.29313/bcsurp.v2i2.4255.

Al-mueed, M, M R A Chawdhery, E Harera, R A Alhazmi, A M Mobrad, S M Althunayyan, and A M Al-wathinani. 2021. "Potential of Community Volunteers in Flood Early Warning Dissemination: A Case Study of Bangladesh." *International Journal of Environmental Research and Public Health* 18 (24). https://doi.org/10.3390/ijerph182413010.

Aldrich, Daniel P., and Michelle A. Meyer. 2015a. "Social Capital and Community Resilience." *American Behavioral Scientist* 59 (2): 254–69. https://doi.org/10.1177/0002764214550299.

Aldrich, Daniel P, and Michelle A Meyer. 2015b. "Social Capital and Community Resilience." *American Behavioral Scientist* 59 (2): 254–69. https://doi.org/10.1177/0002764214550299.

Ali, M. S.S., M. Arsyad, A. Kamaluddin, N. Busthanul, and A. Dirpan. 2019. "Community Based Disaster Management: Indonesian Experience." *IOP Conference Series: Earth and Environmental Science* 235 (1). https://doi.org/10.1088/1755-1315/235/1/012012.

Allen, Katrina M. 2006. "Community-Based Disaster Preparedness and Climate Adaptation: Local Capacity-Building in the Philippines." *Disasters* 30 (1): 81–101. https://doi.org/10.1111/j.1467-9523.2006.00308.x.

Ansell, Chris, and Alison Gash. 2008. "Collaborative Governance in Theory and Practice." *Journal of Public Administration Research and Theory* 18 (4): 543–71. https://doi.org/10.1093/jopart/mum032.

Astill, Sandra, Stuart Corney, Rebecca Carey, Stuart Auckland, and Merylin Cross. 2019. "Reconceptualising 'community' to Identify Place-Based Disaster Management Needs in Tasmania." *Australian Journal of Emergency Management* 34 (1): 48–51.

Berke, Philip R., Ratana Chuenpagdee, Kungwan Juntarashote, and Stephanie Chang. 2008. "Human-Ecological Dimensions of Disaster Resiliency in Thailand: Social Capital and Aid Delivery." *Journal of Environmental Planning and Management* 51 (2): 303–17. https://doi.org/10.1080/09640560701864993.

Bhandari, Roshan Bhakta. 2014. "Social Capital in Disaster Risk Management; a Case Study of Social Capital Mobilization Following the 1934 Kathmandu Valley Earthquake in Nepal." *Disaster Prevention and Management: An International Journal* 23 (4): 314–28. https://doi.org/10.1108/DPM-06-2013-0105.

Chan, Ngai Weng, Ranjan Roy, Chee Hui Lai, and Mou Leong Tan. 2019. "Social Capital as a Vital Resource in Flood Disaster Recovery in Malaysia." *International Journal of Water Resources Development* 35 (4): 619–37. https://doi.org/10.1080/07900627.2018.1467312.

Choi, Yon Jung. 2020. "The Power of Collaborative Governance: The Case of South Korea Responding to COVID-19 Pandemic." *World Medical and Health Policy* 12 (4): 430–42. https://doi.org/10.1002/wmh3.376.

Cornes, Isabel Clare, Brian Cook, and Paula Satizábal. 2018. "'(In) Action ': Rethinking Traditional Understandings of Disaster Risk Reduction." In *The Annual Conference of AFAC and the Bushfire and Natural Hazards CRC*, 52–57.

Curato, Nicole, and Septrin John Calamba. 2020. "Surviving Disasters by Suppressing Political Storms: Participation as Knowledge Transfer in Community-Based Disaster Governance." *Critical Sociology* 46 (2): 241–56. https://doi.org/10.1177/0896920518796167.

Dakey, Shruthi, Shreya Joshi, Vibhas Sukhwani, and Sameer Deshkar. 2022. "A Community-Based Approach to Mainstream Human-Nature Interactions into Coastal Risk Governance: A Case of Katrenikona, India." *Geographica Pannonica* 26 (1): 65–78. https://doi.org/10.5937/gp26-35582.

Damayanti, Annisa. 2020. "Instagram Sebagai Medium Komunikasi Risiko Di Masa Pandemi COVID-19: Studi Netnografi Terhadap Komunitas Online KawalCOVID19.Id." *Jurnal Komunikasi Pembangunan* 18 (02): 176–93. https://doi.org/10.46937/18202032355.

Dicky Pelupessy. 2020. "Memperkuat Komunitas Dalam Penanganan Covid-19." Media Indonesia. 2020.

Emerson, Kirk, and Tina Nabatchi. 2015. "Collaborative Governance Regimes." https://www.semanticscholar.org/paper/fc49892afa9df12d16158fa8765fb9f5f7d1c776.

Emerson, Kirk, Tina Nabatchi, and Stephen Balogh. 2012. "An Integrative Framework for Collaborative Governance." *Journal of Public Administration Research and Theory* 22 (1): 1–29. https://doi.org/10.1093/jopart/mur011.

Goldfinch, S, R Taplin, and R Gauld. 2021. "Trust in Government Increased during the Covid-19 Pandemic in Australia and New Zealand." *Australian Journal of Public Administration* 80 (1): 3–11. https://doi.org/10.1111/1467-8500.12459.

Gultom, Dwie Irmawaty. 2016. "Community-Based Disaster Communication: How Does It Become Trustworthy?" *Disaster Prevention and Management* 25 (4): 478–91. https://doi.org/10.1108/DPM-02-2016-0026.

Guo, Chunlan, Timothy Sim, and Hung Chak Ho. 2020. "Impact of Information Seeking, Disaster Preparedness and Typhoon Emergency Response on Perceived Community Resilience in Hong Kong." *International Journal of Disaster Risk Reduction* 50: 101744. https://doi.org/10.1016/j.ijdrr.2020.101744.

Ighedosa, Stephena Udinmade. 2020. "Social Mobilization to Reduce Vulnerability to Adverse Impacts of Climate Change in the Niger Delta Region of Nigeria." *European Scientific Journal ESJ* 16 (21). https://doi.org/10.19044/esj.2020.v16n21p167.

Indrastuti, Marelina, and Tin Herawati. 2023. "The Multiple Role of Woman, Coping Strategy, and Family Resilience During Covid-19 Pandemic." *Journal of Child, Family, and Consumer Studies* 2 (2): 138–46. https://doi.org/10.29244/jcfcs.2.2.138-146.

Jagannathan, Aarti, Sreekanth Nair Thekkumkara, Jagadisha Thirthalli, and Sekar Kasi. 2021. "A Community Participation Initiative During COVID-19 Pandemic: A Case Study From India." *Indian Journal of Psychological Medicine* 43 (2): 2–5. https://doi.org/10.1177/0253717621991012.

Jahangiri, Katayoun, Yasamin O. Izadkhah, and Seyed Jamaledin Tabibi. 2011. "A Comparative Study on Community-Based Disaster Management in Selected Countries and Designing a Model for Iran." *Disaster Prevention and Management: An International Journal* 20 (1): 82–94. https://doi.org/10.1108/09653561111111108.

Johnson, Fred A, Mitchell J Eaton, Jessica Mikels-Carrasco, and David Case. 2020. "Building Adaptive Capacity in a Coastal Region Experiencing Global Change." *Ecology and Society* 25 (3): art9. https://doi.org/10.5751/ES-11700-250309.

Juaningsih, Imas Novita, Yoshua Consuello, Ahmad Tarmidzi, and Dzakwan NurIrfan. 2020. "Optimalisasi Kebijakan Pemerintah Dalam Penanganan Covid-19 Terhadap Masyarakat Indonesia." *SALAM: Jurnal Sosial Dan Budaya Syar-I* 7 (6): 509–18. https://doi.org/10.15408/sjsbs.v7i6.15363.

Júnior, José Patrício Bispo, and Marciglei Brito Morais. 2020. "Community Participation in the Fight against COVID-19: Between Utilitarianism and Social Justice." *Cadernos de Saude Publica* 36 (8). https://doi.org/10.1590/0102-311X00151620.

Kapucu, Naim, and Abdul Akeem Sadiq. 2016. "Disaster Policies and Governance: Promoting Community Resilience." *Politics and Governance* 4 (4DisasterPoliciesandGovernancePromotingCommunityResilience): 58–61. https://doi.org/10.17645/pag.v4i4.829.

Khoerunisa, Nisa, and Faisal Fadilla Noorikhsan. 2021. "Perbandingan Tata Kelola Penanganan Pandemi Covid 19 Di Indonesia Dan India." *Journal of Political Issues* 2 (2): 89–101. https://doi.org/10.33019/jpi.v2i2.36.

Kumari, Aparna, and Tim G. Frazier. 2021. "Evaluating Social Capital in Emergency and Disaster Management and Hazards Plans." *Natural Hazards* 109 (1): 949–73. https://doi.org/10.1007/s11069-021-04863-x.

Lee, Dae Woong, and Hwa Yeon Kim. 2021. "The Effect of Social Capital on Disaster Conflicts in Local Communities: Focusing on Disaster Victims." *International Journal of Disaster Risk Reduction* 63 (July): 102445. https://doi.org/10.1016/j.ijdrr.2021.102445.

Li, Zhichao, and Xihan Tan. 2019. "Disaster-Recovery Social Capital and Community Participation in Earthquake-Stricken Ya'an Areas." *Sustainability (Switzerland)* 11 (4): 1–15. https://doi.org/10.3390/su11040993.

Magis, Kristen. 2010. "Community Resilience: An Indicator of Social Sustainability." *Society and Natural Resources* 23 (5): 401–16. https://doi.org/10.1080/08941920903305674.

Mahsun, Muhammad. 2023. "The Lack of Government Capacity and Rising Community Networks in Building Resilience During the Covid-19 Pandemic: An Insight from Pekalongan City, Indonesia." *Jurnal Politik Profetik* 11 (1): 41–53. https://doi.org/10.24252/profetik.v11i1a3.

Meilinda, Selvi Diana. 2020. "Covid-19 : Struktur Masalah Dan Pendekatan Kebijakan." *Prosiding Seminar Nasional Problematika Sosial Pandemi Covid-19*, 82–88. https://www.ojs.literacyinstitute.org/index.php/prosiding-covid19/article/view/43.

Melo Zurita, M D L, B Cook, D C Thomsen, P G Munro, T F Smith, and J Gallina. 2018. "Living with Disasters: Social Capital for Disaster Governance." *Disasters* 42 (3): 571–89. https://doi.org/10.1111/disa.12257.

Melo Zurita, Maria de Lourdes, Brian Cook, Louise Harms, and Alan March. 2015. "Towards New Disaster Governance: Subsidiarity as a Critical Tool." *Environmental Policy and Governance* 25 (6): 386–98. https://doi.org/10.1002/eet.1681.

Melo Zurita, Maria de Lourdes, Brian Cook, Dana C. Thomsen, Paul G. Munro, Timothy F. Smith, and John Gallina. 2018. "Living with Disasters: Social Capital for Disaster Governance." *Disasters* 42 (3): 571–89. https://doi.org/10.1111/disa.12257.

Mubah, A Safril. 2013. "Government and NGOs Collaboration in Disaster Governance: The Indonesian Experience." *Global & Policy* 1 (1): 1–10. www.geography.org.uk,.

Mustari, Nuryanti, Achmad Nurmandi, Junaedi, Hamrun, Rudi Hardi, and Nursaleh Hartaman. 2021. "Local Government Crisis Management In Response To Covid-19: The Case Study Of South Sulawesi, Indonesia." *Public Policy and Administration* 20 (4): 480–500. https://doi.org/10.13165/VPA-21-20-4-10.

Nakagawa, Yuko, and Rajib Shaw. 2004. "Social Capital: A Missing Link to Disaster Recovery." *International Journal of Mass Emergencies & Disasters* 22 (1): 5–34. https://doi.org/10.1177/028072700402200101.

Obrenovic, B, J Du, D Godinic, D Tsoy, M A S Khan, and I Jakhongirov. 2020. "Sustaining Enterprise Operations and Productivity during the COVID-19 Pandemic: 'Enterprise Effectiveness and Sustainability Model.'" *Sustainability (Switzerland)* 12 (15). https://doi.org/10.3390/su12155981.

Pandu Primadata, Ankarlina, Muhammad Yamin, Sotyania Wardhianna, Ign. Suksmadi Sutoyo, Agung Kurniawan, and Fadhila Citra Permata. 2023. "Social Capital For Rural Community During the Covid-19 Pandemic in Banyumas Regency." *KnE Social Sciences* 2023 (1): 456–67. https://doi.org/10.18502/kss.v8i3.12848.

Pfefferbaum, Betty, Richard L. Van Horn, and Rose L. Pfefferbaum. 2017. "A Conceptual Framework to Enhance Community Resilience Using Social Capital." *Clinical Social Work Journal* 45 (2): 102–10. https://doi.org/10.1007/s10615-015-0556-z.

Portes, Alejandro. 2009. "Social Capital: Its Origins and Applications in Modern Sociology." *Knowledge and Social Capital*, 43–68. https://doi.org/10.1146/annurev.soc.24.1.1.

Putnam, Robert D. 2000. "Bowling Alone: America's Declining Social Capital." In *Culture and Politics*. https://doi.org/10.1007/978-1-349-62397-6_12.

Rayamajhee, V, and A K Bohara. 2021. "Social Capital, Trust, and Collective Action in Post-Earthquake Nepal." *Natural Hazards* 105 (2): 1491–1519. https://doi.org/10.1007/s11069-020-04363-4.

Reininger, Belinda M., Mohammad H. Rahbar, Min Jae Lee, Zhongxue Chen, Sartaj R. Alam, Jennifer Pope, and Barbara Adams. 2013. "Social Capital and Disaster Preparedness among Low Income Mexican Americans in a Disaster Prone Area." *Social Science and Medicine* 83: 50–60. https://doi.org/10.1016/j.socscimed.2013.01.037.

Rifkin, Susan B. 2014. "Examining the Links between Community Participation and Health Outcomes: A Review of the Literature." *Health Policy and Planning* 29: ii98–106. https://doi.org/10.1093/heapol/czu076.

Rozi, Syafwan, Abdul R. Ritonga, and Januar Januar. 2021. "'Local Community-Based Disaster Management' The Transformation of Religious and Local Wisdom Values in Preparation to Deal with Natural Hazards in West Sumatra, Indonesia." *Jamba: Journal of Disaster Risk Studies* 13 (1): 1–7. https://doi.org/10.4102/JAMBA.V13I1.1020.

Rustinsyah, Rustinsyah, Ratna Azis Prasetyo, and Muhammad Adib. 2021. "Social Capital for Flood Disaster Management: Case Study of Flooding in a Village of Bengawan Solo Riverbank, Tuban, East Java Province." *International Journal of Disaster Risk Reduction* 52: 101963. https://doi.org/10.1016/j.ijdrr.2020.101963.

Saraswati, Putu Sekarwangi. 2020. "Kebijakan Hukum Terhadap Penanganan Pandemi Covid-19 Di Indonesia." *Kertha Wicaksana* 14 (2): 147–52. https://doi.org/10.22225/kw.14.2.1923.147-152.

Schmidthuber, L, A Ingrams, and D Hilgers. 2021. "Government Openness and Public Trust: The Mediating Role of Democratic Capacity." *Public Administration Review* 81 (1): 91–109. https://doi.org/10.1111/puar.13298.

Shoji, Masahiro, and Akira Murata. 2021. "Social Capital Encourages Disaster Evacuation: Evidence from a Cyclone in Bangladesh." *Journal of Development Studies* 57 (5): 790–806. https://doi.org/10.1080/00220388.2020.1806245.

Sunarno, Sunarno, and Endang Sulistyowati. 2021. "Resiliensi Komunitas Di Tengah Pandemi Covid-19." *Mediapsi* 7 (1): 37–52. https://doi.org/10.21776/ub.mps.2021.007.01.5.

Susanto, Isni Wahidiyah, Bevaola Kusumasari, Anang Dwi Santoso, and Oemar Madri Bafadhal. 2023. "Social Capital in Disaster Management: A Systematic Literature Review of Research Trends from 1998 to 2019." *Indonesian Journal of Geography* 55 (2): 179–89. https://doi.org/10.22146/ijg.71572.

Tammar, Abdurazag, Shougi Suliman Abosuliman, and Khan Rubayet Rahaman. 2020. "Social Capital and Disaster Resilience Nexus: A Study of Flash Flood Recovery in Jeddah City." *Sustainability (Switzerland)* 12 (11). https://doi.org/10.3390/su12114668.

Tan-Mullins, May, Pauline Eadie, and Maria Ela Atienza. 2021. "Evolving Social Capital and Networks in the Post-Disaster Rebuilding Process: The Case of Typhoon Yolanda." *Asia Pacific Viewpoint* 62 (1): 56–71. https://doi.org/10.1111/apv.12268.

Wijaya, Andy Arya Maulana. 2016. "Modal Sosial Untuk Kapasitas Community Governance (Studi Kasus Perempuan Pesisir Kelurahan Sulaa Kota Baubau)." *Jurnal Ilmu Pemerintahan : Kajian Ilmu Pemerintahan Dan Politik Daerah* 1 (1): 107. https://doi.org/10.24905/jip.v1i1.436.

———. 2017. "Perspektif Modal Sosial Untuk Kebijakan Pemberdayaan Usaha Kecil Dan Menengah (UMKM) Daerah (Studi Pada Pedagang Di Kawasan Pantai Kamali Kota Baubau-Sulawesi Tenggara)." *The Indonesian Journal of Public Administration (IJPA)* 3 (1): 60–69.

Wijaya, Andy Arya Maulana, L M Azhar Sa'ban, and Nastia Nastia. 2024. "Opportunities And Challenges Of Collaborative Governance In Local Government Tourism Public Policy." *Jurnal Administrasi Negara* 29 (3): 214–34. https://doi.org/10.33509/jan.v29i3.2681.

Wijaya, Andy Arya Maulana, and Safrin Salam. 2019. "Modal Sosial Untuk Pengembangan Organisasi: Studi Pada Aisyiyah Kota Baubau." *Jurnal Sains Sosial Dan Humaniora* 3 (1): 11–20. https://doi.org/10.30595/jssh.v3i1.3885.

Wijayanto, Hendra, Masnia Ahmad, and Siti Mutiah. 2023. "The Community Participation in the Prevention and Transmission of Viruses Through the COVID-19 Vaccination Policy in DKI Jakarta: Case Study on COVID -19 Vaccination Policy in Paseban Village, Central Jakarta," 65–70. https://doi.org/10.5220/0011976100003582.

Wu, Wei Ning. 2020. "Disaster-Resistant Community: An Examination of Developmental Differences." *Natural Hazards* 101 (1): 125–42. https://doi.org/10.1007/s11069-020-03865-5.

Yamali, Fakhrul Rozi, and Ririn Noviyanti Putri. 2020. "Dampak Covid-19 Terhadap Ekonomi Indonesia." *Ekonomis: Journal of Economics and Business* 4 (2): 384. https://doi.org/10.33087/ekonomis.v4i2.179.

Zahnow, Renee, Rebecca Wickes, Mel Taylor, and Jonathan Corcoran. 2019. "Community Social Capital and Individual Functioning in the Post-Disaster Context." *Disasters* 43 (2): 261–88. https://doi.org/10.1111/disa.12317.

Zhang, Xi, Lixin Yi, and Dong Zhao. 2013. "Community-Based Disaster Management: A Review of Progress in China." *Natural Hazards* 65 (3): 2215–39. https://doi.org/10.1007/s11069-012-0471-3.

Zhou, Xueguang. 2020. "Organizational Response to COVID-19 Crisis: Reflections on the Chinese Bureaucracy and Its Resilience." *Management and Organization Review* 16 (3): 473–84. https://doi.org/10.1017/mor.2020.29.