

Article

Building Economic Resilience Based on Social Capital: Creativity of Village Communities in Sleman Regency Facing Disaster

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Abstract: The issue of natural and non-natural disasters is not just security and health but also social and economic issues. Sleman is a district in the Special Region of Yogyakarta, which borders one of the most active volcanoes in the world, namely Merapi. This article aims to explain the strategy of village communities in Sleman district to build economic resilience in facing the eruption of Mount Merapi and COVID-19 by using the concepts of social capital and financial resilience. The research method uses a qualitative descriptive approach using Nvivo 12plus to analyze data. The results show that the economic resilience of village communities in Sleman, especially Umbulharjo Village, Kepuharjo Village, and Glagaharjo Village during the Merapi eruption and Covid-19 disaster, was built due to the existence of strong social capital, namely mutual Trust, mutual understanding, and shared values. The adaptive capacity developed by village communities in Sleman through social capital created resilience, flexibility, and stability in facing the Merapi eruption and COVID-19 disasters.

Keywords: Natural Disasters, Non-Natural Disasters, Village Communities, Economic Resilience, Social Capital

1. Introduction

Natural disasters such as the eruption of Mount Merapi and the COVID-19 pandemic have significantly impacted various aspects of life, especially in vulnerable areas such as Sleman Regency, Yogyakarta (Maryanto et al., 2021). This impact damages physical infrastructure and disrupts village communities' social and economic life (Rahman, 2023). In situations like this, economic resilience becomes very important to ensure the survival of society (Permana, 2024). Financial resilience is not only built through material resources but is also greatly influenced by the social capital possessed by village communities (Khasanah, 2024).

As Putnam stated, social capital includes networks, norms, and trust that enable people to work together to achieve common goals (Putu Ayu Sita Laksmi & I Gde Wedana Arjawa, 2023). Social capital is critical in strengthening economic resilience, especially in villages near disaster sources like Mount Merapi (Tanipu & Hidayat, 2024). In this context, the creativity of village communities in utilizing their social capital is the key to surviving and even developing post-disaster (Budiatiningsih & Rosyidie, 2022)—the critical role of social capital in building community resilience to disasters. Previous research shows that social capital in Yogyakarta rural communities plays a significant role in post-disaster economic recovery (Wijaya & Suyatna, 2021). Other research also explains that the participation of the people of Yogyakarta has a vital role in increasing economic resilience along with innovation from the government (Satriani, 2022).

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Sleman Regency, on the slopes of Mount Merapi, has several villages on the front line facing the threat of natural disasters (Priyono & Rosari, 2023). The three villages that are the focus of this research are Umbulharjo Village, Kepuharjo Village, and Glagaharjo Village, which are located closest to Mount Merapi and are often the most affected every time an eruption occurs (Kokotiasa, 2021). However, despite all these challenges, the people in these villages have shown extraordinary creativity in building economic resilience based on social capital (Mukhlisin et al., 2020). Recent studies in Sleman Regency have demonstrated the importance of social capital in building community resilience to disasters, which can strengthen economic resilience through increasing social solidarity and cooperation between residents (Kusumaningrum et al., 2021; Nursafitri, 2021; Triratna et al., 2023).

This research aims to measure the extent to which social capital plays a role in building economic resilience in facing the Mount Merapi eruption and Covid-19 disaster in three villages of Sleman district, using indicators developed from Putnam's concept of social capital (Kusumaningrum et al., 2021). This research uses a qualitative descriptive approach to explore and analyze data deeply (Farida, 2008). Data analysis was carried out with the help of Computer-Assisted Qualitative Data Analysis Software (CAQDAS), namely Nvivo 12 Plus, which allows for more systematic management and analysis of qualitative data (Salahuddin et al., 2020).

Thus, this research can contribute to understanding the role of social capital in building the economic resilience of village communities, especially in areas vulnerable to natural disasters such as Sleman Regency. It is also hoped that the results of this research can become a reference for policymakers in formulating strategies for strengthening a sustainable community-based economy.

2. Materials and Methods

This research employs a qualitative descriptive method, using a literature study approach (Farida, 2008). The literature study research approach involves gathering data from various literary sources. This process includes reading, note-taking, and analyzing the collected research information (Adlini et al., 2022). The reference data utilized in this research consists of secondary data from mass media sources and relevant scientific journals. The researcher also employs Computer-Assisted Qualitative Data Analysis Software (CAQDAS), specifically Nvivo 12 Plus (Salahuddin et al., 2020). Data visualization is then carried out from the results of Nvivo 12plus through coding features from the concept of social capital of Sleman village communities in post-Merapi and Covid-19 economic development. The data and sources of mass media as primary data in this study are as follows:

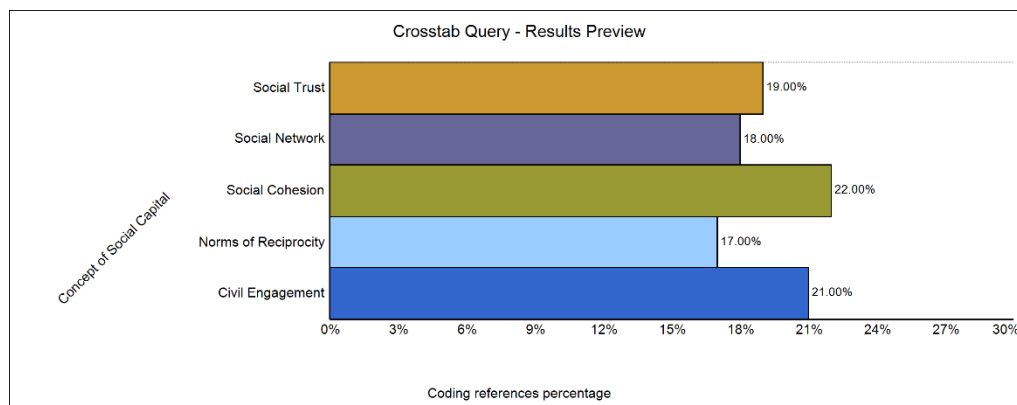
No.	Media Name	Link
1.	Jawa Pos Radar Jogja	https://radarjogja.jawapos.com/
2.	Jogja Daily	https://www.harianjogja.com/
3.	KR Jogja	https://www.krjogja.com/
4.	Jogja City News	https://warta.jogjakota.go.id/
5.	Star Jogja.com	https://www.starjogja.com/

The table above presents five mass media sources utilized as primary data in this study, focusing on news coverage of village community creativity in boosting the economy

following the Merapi disaster and the COVID-19 pandemic in Sleman Regency. These five mass media outlets were chosen as primary data sources due to their strong reputation for delivering local news in Yogyakarta.

3. Results

The results of Crosstab Query data processing on Nvivo 12 plus in this research are shown in the following picture:



The results of the crosstab query analysis of Nvivo data in this study provide an overview of how much each social capital indicator contributes to the overall concept of social capital according to Putnam's theory in the villages of Umbulharjo Village, Kepuharjo Village, and Glagaharjo Village. The results of crosstab query data processing are as follows:

1. Social Cohesion - 22.00%

Social Cohesion is the indicator with the highest contribution, namely 22%. Social cohesion measures the extent to which individuals feel connected to each other and have a sense of solidarity. In the context of this research, the high level of social cohesion shows that the people in the villages studied have strong ties and support each other in facing the economic challenges caused by the Merapi disaster and the COVID-19 pandemic. This strong cohesion allows them to work together effectively in economic recovery efforts.

2. Civil Engagement - 21.00%

Citizen participation contributed 21%, indicating community involvement in various collective activities, such as village meetings, community programs, and economic recovery efforts. The high level of citizen participation suggests that the community has a sense of shared responsibility and is willing to be involved in the decision-making process and implementation of local policies. This high participation also strengthens social capital by increasing residents' sense of belonging and togetherness.

3. Social Trust - 19.00%

Social Trust reflects an individual's confidence level in others in their community. In this research, social Trust contributed 19%. This means that almost one-fifth of the total measurement of social capital in village communities lies in how much they trust each other. High Trust is usually related to strong social cohesion, where people feel safe and comfortable interacting with each other, especially when facing disasters or crises.

4. Social Networks - 18.00%

Social Network refers to the relationships and connections that individuals have in society. With a contribution of 18%, social networks in these villages are an essential foundation for productive social interactions. A strong network allows easier access to needed support, information, and resources, especially in

emergencies after a natural disaster. Social networks also serve to disseminate innovations and best practices among citizens.

5. Norms of Reciprocity - 17.00%

The norm of reciprocity with a contribution of 17% shows the importance of unwritten rules governing the exchange of help and support among citizens. This norm reflects the culture of cooperation and mutual assistance, which is still strong in these villages. With solid norms of reciprocity, individuals feel compelled to help others in the hope that they will also receive help when needed. This creates an ongoing support system and adds a layer of social safety.

The results of this crosstab query show that social capital indicators play different but complementary essential roles in building economic resilience in the village communities studied. Social cohesion and citizen participation emerged as the most dominant components, followed by social Trust, social networks, and norms of reciprocity. Combining all these indicators provides a strong foundation for communities to face and recover from disasters and manage emerging economic challenges.

4. Discussion

The results of data analysis using Nvivo 12 Plus in three villages in Sleman Regency, namely Umbulharjo Village, Kepuharjo Village, and Glagaharjo Village, show that social cohesion and citizen participation are the two most dominant elements of social capital in building community-based economic resilience. Social cohesion was at the highest percentage at 22%, followed by citizen participation at 21%. Social Trust, social networks, and norms of reciprocity also make significant contributions, although in lower percentages. The discussion discussion is as follows:

Social Cohesion

Social cohesion has proven to be a significant factor in the economic resilience of communities in the three villages studied, both in natural disasters and during the COVID-19 pandemic. In Umbulharjo Village, social cohesion played a vital role during the pandemic, where residents collectively supported each other through solidarity networks to ensure access to basic needs such as food and medicine. This shows that social solid ties enable communities to remain stable and resilient amid a crisis) (Syahrani, 2024).

The high level of social cohesion can be seen from the initiative of the Umbulharjo village community to work together to develop Lava Tour tourism and the Jenissari Tourism Village, where residents act as guides, jeep drivers, and homestay managers (Nursafitri, 2021; Pratama et al., 2024). Meanwhile, in Kepuharjo Village, social cohesion is seen in educational and adventure tourism management, where residents work together to welcome tourists, manage homestays, and produce and sell souvenirs (Kusumaningrum et al., 2021). Next is social cohesion in Glagaharjo Village, educational and adventure tourism management, where residents work together to welcome tourists, manage homestays, and produce and sell souvenirs. This shows deep solidarity among village residents to maximize the economic benefits of tourism (Rizal & Kharis, 2022).

Citizen Participation and Social Trust

Citizen participation and social Trust are essential in increasing economic resilience in village communities in the Sleman district. This can be seen from the high level of involvement of Umbulharjo Village residents in efforts to improve financial resilience through concrete programs, both when facing the eruption of Mount Merapi and the COVID-19 pandemic. After the eruption of Merapi, they initiated the Lava Tour tourism program, which involved many residents as tour guides, jeep drivers, and homestay managers. (Puspitasari et al., 2020) . This program succeeded in turning the threat of disaster into a significant economic opportunity for the village. In addition, during the

COVID-19 pandemic, residents jointly established a cloth mask and hand sanitizer production program, providing much-needed goods and creating jobs for economically affected residents (Wahyudya & Murdianto, 2022).

In Kepuharjo Village, citizen participation in strengthening economic resilience is realized through various programs that have been successfully implemented. After the eruption of Mount Merapi, this village launched the Merapi Educational Tourism program, where residents collectively manage homestays and produce and sell unique souvenirs. This program provides significant additional income for village residents (Wahyudya & Murdianto, 2022). In addition, when the COVID-19 pandemic hit, this village set up a mutual aid post that distributed aid and ran a "Public Kitchen" program that provided free food for residents most affected by the pandemic. Residents also participate in collective business development programs, such as producing processed food and herbal products run by community groups, helping maintain the village's economic resilience in difficult situations (Wahyudya & Murdianto, 2022).

Social Networks and Norms of Reciprocity

Umbulharjo, Kepuharjo, and Glagaharjo villages have successfully managed economic resilience by developing tourist villages after the Merapi eruption and COVID-19. These three villages launched various tourism initiatives, including developing tourist attractions, skills training for residents, and digital promotions to attract visitors (Miyayi, 2021). This effort helps restore the local economy affected by the pandemic and creates norms of reciprocity by creating new jobs and increasing people's income. In addition, strict health protocol adjustments and adaptive marketing strategies ensure that tourists feel safe and comfortable (Nursafitri, 2021; Pratama et al., 2024).

Social networks in the three villages played an essential role in this success. The village government, local business actors, and the community work together to build and maintain networks supporting tourist village development. This collaboration includes information sharing, financial assistance, and cooperation in promotional activities. This social network makes villages more responsive to challenges and changes and strengthens the village's attractiveness as a tourist destination.

5. Conclusion

Social capital has been a strong foundation in building economic resilience in village communities in Sleman Regency, especially in the villages closest to the slopes of Mount Merapi, namely Umbulharjo Village, Kepuharjo Village, and Glagaharjo Village. Each village demonstrated unique strengths in elements of social capital, such as social Trust, social networks, and social cohesion, reflecting their adaptation to local challenges. Social capital is vital in strengthening economic resilience, enabling these villages to respond more effectively to natural disasters and socio-economic crises, such as the COVID-19 pandemic. Strong local leadership is crucial in mobilizing social capital to achieve common goals.

These findings emphasize the importance of development strategies based on a contextual understanding of social capital. Policies that support the sustainable development of social capital will increase a community's ability to survive and recover from various crises. However, adaptation to the specific conditions of each community is necessary to ensure the success of this strategy. Thus, developing sustainable and contextual social capital is significant to strengthening economic and social resilience in the Sleman region, which is vulnerable to disasters.

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