

# Informational Capital and Community Disaster Resilience

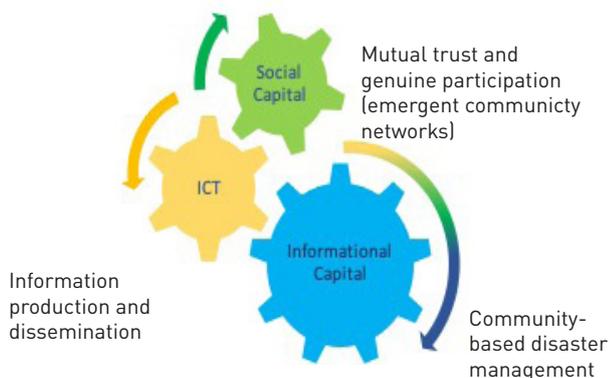
Understanding how communities respond to and recover from disasters is vital not only for governments, social scientists, and disaster researchers, but also for the communities themselves. Information is a crucial asset that defines the effectiveness of disaster management (Dynes, 2006). Social capital is also necessary for a community to mobilise and manage its resources for emergency response (Aldrich & Meyer, 2015).

This study seeks to answer **How can organised trust-based relations and ICT enhance community resilience?** It aims to shed light on the interplay between social capital and information and communication technology (ICT) in building community disaster resilience.

Informational capital refers to the amount of mutual trust and genuine participation in the production and dissemination of information in response to disaster (Figure 1). Combining the notion of social capital and ICT resources, informational capital emphasises how information is produced, disseminated and perceived to be trustworthy by a community for disaster management (Tasic & Amir, 2016).

Social capital is a system of mutual trust that is necessary for communities to take up collective action and build emergent community networks to respond to disaster. However, ICT is essential to support crisis communication by enabling the production and dissemination of reliable information. The web-based community network - Jalin Merapi Network that was formed in response to a volcanic eruption, demonstrates the mechanisms of informational capital.

Figure 1: Fundamentals of informational capital.



**Results:** The empirical study showed that the community network emerged from pre-existing social capital, which when combined with ICT, enabled the community

to deal with disaster through internal mobilisation. This allowed the community to gain access to crucial external resources such as information and relief aid. Informational capital filled a disaster management gap and greatly contributed to enhancing community disaster resilience.

Components of informational capital resilience include:

- Individual capabilities: knowledge of natural hazards, local customs and context (e.g. topography, traffic conditions), and ICT
- Collective capabilities: strong community bonds that increase participation, strong bridging social capital to form effective community networks, strong linking social capital that empowers a community with skills and knowledge, common beliefs, values and local culture
- Access to ICT tools and infrastructure to form and maintain a community network to quickly produce and disseminate reliable information and organise aid distribution

## Policy recommendations:

- Adequate ICT infrastructures to allow communities to build emergent networks among themselves, as well as to produce and disseminate information
- ICT solutions to be widely implemented as Informational capital is central in disaster management
- Three types of social capital (bonding, bridging, linking) to be strengthened to enhance community disaster resilience
- Free flow of information within a community to support social access in producing and disseminating reliable information

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## References:

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