
Municipalities' Resilience and Crisis Response Awareness for Peace in Mindanao, Philippines

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Abstract

Several discussions on peacebuilding and government-community relations emphasize the importance of effective service delivery during conflicts and crises. Peacebuilding, as a form of state-building, aims to strengthen public perceptions of the government, enhance legitimacy, and foster peaceful government-community relations. As one of the government's local tiers closest to the people, municipalities play a critical role in crisis response, maintaining community ties by ensuring informed and responsive service delivery. Few studies provide empirical evidence, despite the widespread discussion of this role. Thus, this study investigates whether municipalities' resilience influences crisis response awareness in the context of

peacebuilding in Mindanao, specifically during the COVID-19 pandemic. The study uses T-statistics to look at data from 1,050 households in seven municipalities chosen by the Department of Interior and Local Government (DILG) for the 2021 Citizen Satisfaction Index System (CSIS) survey. It also looks at data from the 2021 City Municipality Competitiveness Index (CMCI) by the Department of Trade and Industry to see how resilient the municipalities are. Results indicate municipalities' resilience positively affects crisis response awareness, despite minimal awareness among most household respondents regarding specific crisis responses. Therefore, the study recommends strengthening municipal resilience to enhance community awareness of crisis responses and potentially reinforcing government-community relationships in Mindanao.

Keywords: Crisis response awareness; Government-community relationship; Mindanao peace; Municipality; Resiliency

I. Introduction

In times of crisis, people in democratic societies increasingly have the power to demand services and actions from their governments. As communities convey their needs to their respective governments, this pressure requires the latter to respond effectively to avoid dissatisfaction, which can hinder efforts toward state-building and peace. The COVID-19 pandemic, an unprecedented global crisis, highlighted this challenge, placing immense pressure on governments to address health and socio-economic needs swiftly and efficiently.

In Mindanao, Philippines, where conflict-prone areas and fragile contexts are common, the impact of COVID-19 was especially pronounced. The rapid spread of the pandemic and the subsequent lockdowns-imposed quarantine measures heightened public insecurity and fear (Leguro, 2020). During this period, residents faced disruptions in employment and education and had concerns about accessing basic services such

as banking, healthcare, and food. Additionally, contact-tracing activities led to heightened suspicions and tensions within communities. Even as lockdowns eased, uncertainties about health safety persisted, fueling anxieties and relational problems within communities. Poor households, especially those in conflict-affected and displaced populations, faced severe food insecurity due to limited financial means and restricted access to markets, which exacerbated conflicts and posed challenges to the government's role in safeguarding peace and protecting the rights of citizens.

To strengthen community-government relationships and support state-building amid crises like COVID-19, addressing community needs has become essential. According to the Organization for Economic Cooperation and Development (2008), state-building involves deliberate efforts to develop the state's capacity, institutions, and legitimacy to foster effective political processes and address demands from societal groups. Over the years, peacebuilding efforts have focused on strengthening government-community ties, particularly through effective service delivery and timely strategy

implementation during conflicts and crises. In this context, the COVID-19 pandemic provides a relevant backdrop to examine how municipalities, as local government units (LGUs), play a crucial role in crisis response and in maintaining public trust through resilience and efficient service delivery.

The Local Government Code of 1991 (RA7160), empowers municipalities in the Philippines by decentralizing governance and directly addressing community needs. Decentralization expects municipalities to better understand their communities' conditions than the national government, enabling them to communicate more effectively and promptly address local concerns. This empowerment emphasizes the importance of public service delivery and demonstrates how municipalities can contribute to resilience during crises like the COVID-19 pandemic. Therefore, this study aims to examine whether municipalities' resilience, as a critical component of local government initiatives, influences crisis response awareness among communities during the COVID-19 pandemic. By focusing on COVID-19 response strategies, the study contributes to a deeper

understanding of municipal resilience and its impact on government-community relations in times of crisis.

For vulnerable groups to remain informed, prepared, and resilient during crises, effective communication between government and community members is essential. Despite efforts to enhance service delivery and awareness, there remain gaps in access to basic services and information (UNHRC Philippines, 2020). Communication is crucial in sustaining community-government relationships and in building trust that can last beyond the crisis (Agi et al., 2018).

As the pandemic underscores the importance of resilience, this study explores how municipalities' resiliency capacities contribute to crisis response awareness, especially in the context of COVID-19. We hypothesize that resilience, considered here as the independent variable, influences crisis response awareness (the dependent variable), thereby impacting government-community relations. While existing literature emphasizes the role of service delivery in fostering government-community ties, empirical research on resilience during COVID-19 remains

limited. This study seeks to fill this gap by investigating how municipalities' resilience influenced crisis response awareness during the pandemic.

The resilience of municipalities is an independent variable (x).

One of the propositions on the advantages of decentralization by Osborne and Gaebler (1992) stated that decentralized institutions generate higher productivity for the benefit of the stakeholders who are affected by the works of the local institutions. The present study examined this advantage by describing the state of resilience using the total resilience scores from the City Municipality Competitiveness Index (CMCI) 2021 for the participating cities and towns. Using the CMCI framework, the variable (x) described the municipalities' outputs per unit of inputs, thereby enhancing their productivity and resilience in challenging and unprecedented circumstances. This study defines productivity, as captured by CMCI's measurement of resilience, as a municipality's ability to efficiently utilize limited resources to implement initiatives that strengthen community awareness and readiness during crises. Porter's (1985) theory

reinforces this advantage by highlighting the expectation of local institutions to produce multiple final products with a limited number of inputs and to demonstrate efficient outputs that hold value in the community.

Crisis response awareness is the dependent variable (y).

As revealed in the output indicators, particularly the crisis responses listed in the DILG's CSIS 2021 survey, crisis response awareness serve as the study's primary variable (y). The study utilized and analyzed these indicators to understand their outcomes, using the ratings of the community's households as the unit of analysis. These output indicators represented the support and services the municipalities provided during times of crisis, as well as the strategies they enforced through their policies. The idea of identifying crisis strategies as part of the essential services of the municipality lies in the definition and concept of public service itself, with emphasis on "services of general interest." Anderfuhren-Biget et al. (2014) and EESC (2012) consider any activity, including the formulation of public policy (and not just its enforcement), in the public's interest and with its

motivations, as a type of public service. The list below presents the specific indicators of the crisis response.

The analysis focused on household awareness of the crisis response using the average index of the output indicators per respondent. Hence, from the foregoing objectives and the theory and concepts on which they are anchored, the study tested this null hypothesis:

Ho: The resilience of municipalities does not influence their awareness of crisis response.

II. Materials and Methods

This study utilized a quantitative approach with a correlational research design, employing secondary analysis of primary data and T-statistics for relationship testing.

The study used the 2021 City Municipality Competitiveness Index (CMCI) to measure general resilience through productivity and output efficiency during crises. In contrast, the 2021 Citizen Satisfaction Index System (CSIS) was used to measure crisis response awareness, indicating people's understanding of how

LGUs manage crises. However, despite their complementary perspectives, the study acknowledges the limitations of the two indicators' differing focuses—general resilience versus specific awareness.

Moreover, the correlation focuses on the influence of municipal resilience, measured through the CMCI resiliency index, on crisis response awareness, as gauged by CSIS data during the COVID-19 pandemic. The study utilized simple linear regression to test the relationship between municipal resilience (independent variable) and crisis response awareness (dependent variable), as the primary focus was on examining a direct and linear influence between these two variables.

The empirical study focused on seven (7) municipalities in Mindanao, Philippines. The Department of Interior and Local Government (DILG) selected these municipalities based on the 2021 Citizens' Satisfaction Index System (CSIS) Survey criteria, emphasizing their alignment with the COVID-19 response measures. The selection may represent each administrative region in Mindanao, except the BARMM. The CSIS 2021 Policies

and General Guidelines prioritized selection to areas that met all the following qualifications:

This includes: 1. Places covered by Executive Order No. 70, Series of 2018, which is about "Institutionalizing the Whole-of-Nation Approach in Attaining Inclusive and Sustainable Peace, creating a National Task Force to End Local Communist Armed Conflict, and Directing the Adoption of a National Peace Framework," as decided by the right authorities; and 2. Places where the Inter-Agency Task Force (IATF) and the Regional Interagency Task Force (RIATF) agree that the COVID-19 risk level is low.

Using the aforementioned criteria, the study investigated the municipalities listed below. The table presents the municipality's profile and the distribution of the sample.

Code	Region	Province	Municipality	Income Class	Samples
01	Region IX	Zamboanga Del Sur	Mahayag	3rd	
02	Region X	Camiguin	Catarman	5th	
03	Region X	Camiguin	Mahinog	5th	150 per municipality
04	Region XI	Davao Del Sur	Matanao	2nd	
05	Region XII	North Cotabato	President Roxas	1st	150 x 7
06	Region XII	Sultan Kudarat	Sen. Ninoy Aquino	3rd	
07	Region XIII	Surigao Del Norte	Sison	5th	
Total Samples					1,050

The study utilized primary data from the 2021 CSIS, comprising 1,050 household responses, as well as the resiliency scores of the municipalities from the 2021 City Municipality Competitiveness Index (CMCI). Hence, the table below presents the variable and its corresponding data (including its type and source) for treatment and analysis.

Variable and Data for Treatment and Analysis

Variable	Data	Type of Data	Offices
Resilience (x)	2021 City Municipality Competitiveness Index (CMCI)	Index from website	Department of Trade and Industry (DTI) Regional Office

Crisis Response	2021 Citizens Satisfaction	CSIS	raw	DILG - Bureau of Local Government Supervision (BLGS)
Awareness (y)	Index System (CSIS) Survey	data		

A sampling procedure generated the CSIS 2021 data, which provided public feedback on LGUs' crisis responses, particularly during the COVID-19 pandemic. While CMCI data captures overall resilience indicators, these metrics enable a multifaceted analysis. However, the study acknowledges that CMCI assesses broader institutional resilience, which may not directly represent specific public-facing crisis response activities as captured by CSIS. Future research could benefit from DILG's specific COVID-19 response indicators as direct measures of municipal resilience. These indicators, which focus explicitly on interventions such as contact tracing, isolation facility management, and public health initiatives, may offer a more targeted understanding of resilience and its correlation with community awareness. A study incorporating these measures could provide clearer insights into how LGUs' COVID-19-specific strategies influence public perceptions and crisis preparedness.

Furthermore, we described the data from the CMCI 2021 and CSIS 2021 to provide a specific context for the variables used in relationship testing. We then interpreted the index scores using the matrix below.

This study uses cross-sectional data from the 2021 CMCI and CSIS datasets. The choice of cross-sectional data reflects the study's focus on a snapshot of resilience and awareness during the COVID-19 pandemic, rather than trends over time. Future research could incorporate time-series or panel data to explore longitudinal effects and dynamic interactions between resilience and awareness.

Adjectival Rating for describing the variables

Binary Variable	Adjectival Rating	Range	Interpretation for Variable (x)	Interpretation for Variable (y)
1	Maximal Level	0.51 - 1.00	The households resided in municipalities with a maximal level of resiliency. Maintain productivity or the number of outputs per unit of input for more resiliency.	The household has a maximal level of crisis response awareness. Maintain strategies to communicate the initiatives effectively to the community.

0	Minimal Level	0 - 0.50	The households resided in municipalities with a minimal level of resiliency. Improve productivity or the number of outputs per unit of input for more resiliency.	The household has a minimal level of crisis response awareness. Improve strategies to communicate the initiatives effectively to the community.
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The service delivery model of Shin and Jhee (2021) and the arguments about the benefits of decentralization from Osborne and Gaebler's (1992) theory guided the analysis.

III. Results and Discussions

In line with the study's objectives, we conducted a relationship test to determine whether the resilience of municipalities affects the awareness of crisis responses for peace in Mindanao. This study focused on government-community relationships, as supported by various types of literature. Additionally, we described each variable's condition to provide context for the relationship testing. The study presents the results, analysis, and interpretation below.

Table 1. Municipalities' Resiliency Profile

Index Score	Adjectival Rating	Percentage of Resiliency
$x \geq 0.51$	Maximal Resilience	71.43
$x \leq 0.50$	Minimal Resilience	28.57

The table indicates that the majority of household respondents, approximately 71%, have resided in municipalities with maximum resiliency, which aligns with the expectations of the theory and related concepts.

This study applies Porter's (1985) theory to determine whether municipalities could generate higher productivity than anticipated. When COVID-19 and other types of crises affected the localities in Mindanao in 2021, many of the selected municipalities were able to provide multiple initiatives using only a limited number of inputs, as indicated by their maximal rating on resiliency. Osborne and Gaebler (1992) posit that decentralized institutions enhance productivity, thereby benefiting the

stakeholders they belong to. This result exemplifies the fourth advantage of decentralization.

Table 2 Crisis Response Awareness Index

Index Score	Adjectival Rating	Percentage of Crisis Response Awareness			
		SAP	Covid-19 NAP Response	Disaster/ Crisis-Related Response	Other Mean
$y \geq 0.51$	Maximal Awareness	3.76	68.63	70.75	47.71
$y \leq 0.50$	Minimal Awareness	96.24	31.37	29.25	52.29

As presented in Table 2, 52.36% of the community households have minimal awareness. This rating contradicts one of the advantages of decentralization, as highlighted by Osborne and Gaebler (1992). The results suggest that many municipal LGUs in Mindanao face difficulties in communicating with their locals about necessary actions, a situation that goes against the principles of effective communication. Along with false information, which makes crisis response more difficult (WHO,

2020), a lack of awareness is also caused by a lack of resources and the ability to put strategies and services into action, which is not helped by decentralization according to Osborne and Gaebler's (1992) theory. This study also reveals that the CMCI index demonstrates the strength of municipalities. However, given the limited knowledge of respondents regarding crises, it is plausible that the CMCI may not encompass all crucial aspects of the COVID-19 crisis response, particularly those that entail direct public communication.

Furthermore, one of the factors affecting the mean in the awareness index is the experience of community households with the delivery of social amelioration programs (SAP) by the national government. LGUs are mandated to deliver this crisis support to the community on behalf of the national government, following the decentralization system, and they are considered an effective partner of the national government (Talabis et al., 2021). Table 2 reveals that 96.24% of the household respondents possess minimal awareness. We can interpret this as a lack of information-driven engagement in the community by national and local governments, which is crucial for communities to

participate in democratic governance and service provision (Brinkerhoff & Azfar, 2006). Tekin (2014) has cited municipalities' ostensible failure to inform locals about their initiatives, whether strategies or services, to elicit community participation and cooperation with the LGU during crisis response.

We also expect decentralized institutions to have a deeper understanding of the situation than the national government. This will enable the local government units (LGUs) to effectively receive the people's concerns and demands during the crisis and communicate local strategies and services to them. The failure of many selected municipalities to effectively communicate with their community contradicts Osborne and Gaebler's (1992) theory about the advantages of decentralization. This could potentially impact the relationship between the municipality and the community, necessitating ongoing interventions. Rocha-Menocal & Sharm (2008) report that these interventions have positively impacted awareness-raising efforts. As part of empowerment, the interventions should prioritize enhancing information access (Brinkerhoff & Azfar, 2006).

Table 3. T-statistics results on the influence of Municipalities' resilience to Crisis Response Empowerment

Variable	DV Crisis Response Awareness (y)	
	t	Sig.
IV Resilience (x)	2.211	0.027

Furthermore, we analyzed the dependent variable (y) alongside the municipalities' resiliency (x). As presented in Table 3, the result shows the influence of the municipalities' resiliency (x) on their crisis response awareness (y), with a p-value less than 0.05. The coefficient for municipalities' resilience was 2.211 ($p < 0.05$), indicating a statistically significant positive relationship with crisis response awareness. This suggests that higher resilience scores are associated with an increase in public awareness of crisis responses. Consistent with the expectation, the result exhibits a strong positive relationship of (x) to (y), as seen through the t-statistics result of 2.211. The findings align with Shin and Jhee's (2021) concept of public service perception, which posits that effective local government management

capacity enhances citizen satisfaction and engagement. Similarly, municipal resilience, as a form of management capacity, influences public awareness of crisis responses, suggesting that improved resilience could positively shape public perceptions and trust in local governments. This suggests that generating multiple outputs in municipalities to enhance resilience during unprecedented circumstances could raise community awareness of crisis response.

IV. Conclusion and Recommendation

Based on the results and analyses, the study concludes that the resilience of the municipalities significantly influences crisis response awareness. Therefore, given the current crisis response conditions where the data shows that the majority of households have minimal awareness, it is imperative to improve it. Increasing municipalities' resilience can achieve such purpose. According to the theories and concepts discussed, enhancing awareness of the crisis response could lead to better communication, thereby strengthening the government-community relationship,

particularly in the context of peacebuilding in Mindanao, Philippines.

Based on the results and analysis, the DILG's Bureau of Local Government Supervision (BLGS) likely has a comprehensive understanding of the conditions in the selected municipalities, particularly regarding how their resilience could impact crisis response awareness. Since their mandate is to supervise governance and assess and encourage LGUs to perform well, the results may provide an opportunity to set recommendations on how to sustain or enhance crisis response awareness in the municipalities. This could be achieved through improving performance in the resiliency indicators set in the City Municipality Competitiveness Index (CMCI) and ensuring that municipalities communicate their resilience efforts effectively to their people, thereby translating into public service awareness and providing better access to the benefits of services and strategies. Additionally, the outcome suggests that the DILG-BLGS should monitor how municipalities are disseminating information about public services and strategies. They should also develop initiatives to help more municipalities equip their

LGUs with the necessary skills to achieve the highest level of crisis response awareness

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