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Role of Collaborative Governance towards Crisis Management: A Case Study of Provincial Disaster Management Authority (PDMA)

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Abstract

The current study examines how the Provincial Disaster Management Authority (PDMA) used collaborative governance to manage crises. It also aims to identify the elements of cooperative governance, fundamental tactics, and challenges encountered during crisis management. For data collection, semi-structured interviews were used. Twelve interviews with the PDMA top management were conducted and data was transcribed through thematic analysis. It has been determined that collaborative governance and fundamental and complementary conditions impact crisis management, particularly when building collaborative processes. It has also been discovered that the key prerequisites for developing the collaborative process are leadership activities and face-to-face negotiation. Contrarily, supportive settings entail an initial understanding, trust, and commitment that enhance the collaborative process without endangering crisis management. However, the research findings connect well with existing theories especially in governance frameworks on the importance of interactive dynamics. These perceptions can enlighten future study and pursue the practices in crisis management, mostly in how collaborative governance can influence to improve awareness and resilience in disaster management struggle.

Keywords: collaborative governance, crisis management, stakeholder collaboration, PDMA

Introduction

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Serious natural calamities have troubled the planet on numerous occasions. Inadequate capacity to deal with crisis negatively affects numerous social values, such as life cycle, health, society, and democracy (Olsen et al., 2023). The crises, nonetheless, have impact on organizational operations. Therefore, governments, small local public sectors, and even international organizations are greatly impacted. The need for cooperation to manage crises has grown due to the emergence of crises that vary in terms of their size, occurrence, frequency, and complexity. The administration's primary goal is to ensure the safety of its citizens and regulate large-scale crisis management (Heller, 2012). The majority of nations have dealt with complexity to manage crises. Instead of disaster management or emergency management, the term crisis management has been utilized in this study.

Increased natural and artificial disasters during the past few decades have shown that traditional emergency crisis and disaster management strategies are ineffectual. The management system has moved from a centralized to a decentralized management structure. The approach was specifically adopted due to the need for cooperation when responding to recovery from hazardous situations and horrific disasters, which may focus on network coordination, collaboration, and partnership in crisis and disaster (Eckstein et al., 2019). In order to engage with important organizations and administration in terms of delivering public services by keeping everyone at the table, this emergency management system forces a decentralized system and flexible structure (Kapucu & Özerdem, 2011).

Massive level accidents, artificial and natural economic instability, and other immovable challenges foster a climate where groups of organizations can come together and work together. It can occur continuously and over time in various contexts, most often at several levels of government (Comfort et al., 2010; Quick & Feldman, 2014). Numerous studies contend that crisis management fosters collaborative public management, which is closely related to the idea of collaborative governance and is generally characterized as the processes and structures of public policy decision-making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished (Emerson et al., 2012).

The existing literature covered the functional and political aspects of crisis management. From the perspective of the functional dimension, the

crisis serves the situation that must be managed well by immediate action because it imperils fundamental values and necessitates the excellence of administrative margins, cross-sectors, and authority levels (Boin et al., 2014). For these crisis circumstances to be met, there is a need for well-recognized information-sharing, expectation fulfillment, and arrangements across the sectors. Stakeholders, policymakers, and leadership attributes (Drabek & McEntire, 2002) this functional dimension, which focuses on the prerequisites for achieving cross-sectorial, intergovernmental, and multi-sectorial collaboration in ambiguous and high-stress environments. From the perspective of a political dimension that emphasizes institutional crisis, in which the occurrence of undesirable behaviors produces public anxiety and is intended to openly confront the policymakers, programs, and organizations (Alink et al., 2001).

Crisis management is influenced by a few emerging concepts, including varied working actor collaboration, performance and efficiency evaluation, and the accessibility of training (McGuire et al., 2010). Furthermore, the motivation that drives public servants toward selfless giving has gained considerable attention (Hassan et al., 2021).

Pakistan, as other South Asian nations, is situated in an area prone to numerous natural catastrophes, including floods, earthquakes, cyclones, and droughts. The factors contributing to human fatalities in natural disasters include increased population, unchecked growth, and mismanaged infrastructure growth (Cardona, 2006). Pakistan has experienced losses and damages worth an estimated US$18 billion over the past few decades that greatly impacted the economic conditions. According to both the Government of Pakistan and an economic survey, it has been observed that flood damages, GDP cost, and rehabilitation costs are Rs. 3.2 trillion (US$ 14.9 billion), Rs. 3.3 trillion (US$ 15.2 billion), and Rs. 3.5 trillion (US$16.3 billion), respectively (Government of Pakistan, 2023).

Pakistan was rated as the eighth most affected nation between 1996 and 2016 according to risky weather (Eckstein et al., 2019). The Pakistani government has taken action with several partners to reduce the damage caused by various natural catastrophes. The 2005 earthquake and the 2010 flood were Pakistan's worst disasters in terms of the casualties and property destruction. Pakistan has had 162 natural disasters, with floods being the most common and responsible for 6.8 million deaths in the 20th Century. There have been 23 earthquakes in the past 50 years (Swathi, 2015).

The Pakistani government announced the National Disaster Management Ordinance in 2007, in response to the aftermath of the 2005 earthquake. Additionally, the National Disaster Management System was put in place in the nation and was later incorporated into the Disaster Management Act 2010 at the national, provincial, and district levels. According to the Act, the National Disaster Management Commission (NDMC) has the authority to make policies and plans for Disaster Risk Management (DRM). PDMAs operate at the provincial level with partnerships from several actors. However, the NDMA was founded in 2007 and serves as the execution, organization, and monitoring sector at the national level for DRM.

Rationale of the Study

This study highlights the function of the provincial disaster management authority and the cooperation of various stakeholders. The coordination, collaboration, and networking features of the existing collaboration organization at the provincial level is also highlighted. According to the leadership role as steward by combining together all the relevant stakeholders and to make decisions on institutional design, creating framework for collaboration. This intuitional strategy was considered by participatory completeness, opportunity superiority, and transparency (Christensen, 2024). Moreover, collaborative leaders have fundamental role in dealing with difficult public issues at the local, national, and global levels to make them successful (Agbodzakey, 2024).

Research Question

How does collaborative governance affect crisis management at PDMA?

Research Objectives

- To comprehend the effects of collaborative governance in managing a crisis.
- To investigate the collaborative method PDMA employs, the strategies used, and to document the challenges faced in crisis management.

Literature Review

According to Ansell and Gash (2008), collaborative governance refers to a process where one or more public organizations flexibly engage with non-government stakeholders in a joint decision-making process to manage

public programs and carry out public policy. In addition, the National Policy Consensus Centre (NPCC) described the idea as a process or method where a leader engages with all other sectors, including the public, private, citizens, and many more, to establish efficient and long-lasting solutions to problems that may go beyond what any organization could come up with on its own. As a result, the term collaborative governance effectively sums up the essential idea of collaboration and governance (Ngah, 2013). As a technique of dispute resolution, collaborative governance offers services in conjunction with community involvement, interest groups, and contact with the residents. Public service delivery is the primary goal of any collaboration (Tang & Mazmanian, 2008). Collaborative governance was used by Feiock and Scholz (2009) to inspire stakeholders to create self-organizing administrations. According to the scholars' definitions, public conflict resolution is a government action carried out to reach a consensus by collaborating with many players to resolve general issues. It has been observed that few international organizations and state governance enterprises are struggling to address the determined agenda and the SDGs in an integrated way. Now, Collaborative governance methods connecting public and private performers especially in the form of multi-stakeholder partnerships can be seen as a "manifestation of the ongoing restructuring of environmental governance in the context of globalization" (Glass et al., 2023, p. 2).

Governance is a cooperation mechanism for expressing and executing strategy that enthusiastically pursues the participation of participants and civil society administrations besides administration forms and authorities. It is a framework of decision-making that highlights agreement and output (Bradley et al., 2022). Collaborative governance is well-known in Political Science (Ansell & Gash, 2008) and Public Administration (Emerson et al., 2012). The goal of collaborative governance is to provide better and more sustainable environments to the public to demonstrate how successful the outcome was achieved by a collaborative process (Sisto, 2018). However, more literature on joint planning and decision-making has been found than on collaborative implementation and preservation. Prior literature on collaborative governance accounts that external instruction and incentives from upper-level management might work as beginning conditions in the commencement phase of collaboration (Bruun & Rubin, 2023).

Multiple players must participate or work together to resolve the problems of resource scarcity, natural disasters, or artificial disasters. This tendency has been transformed or switched from hierarchical/top-bottom and well-established to a horizontal, less formalized, and bottom-up associative style of governance to value collaborative decision-making with many stakeholders. This transition from government to governance is referred to as such (Klijn & Koppenjan, 2015). As it has been seen that passing years are the emerging role of state and theoretical discussions. This has been noticed that Classical Bureaucracy was the prominent mode of governance which depicts the rules and command and control techniques, vertical management, identical tasks, and compliance-driven presentation that is the emerging concept of new public management (Paliokaitė & Sadauskaitė, 2023).

The elements of collaborative governance highlighted by Omodan et al. (2018) include consensus building and facilitative leadership, since these variables are crucial to managing the crisis. The practice of involving stakeholders in face-to-face discussions to establish a plan that serves the interests of all parties involved is known as collaborative planning. To get a consensual decision, the involved parties must negotiate and converse. It improves knowledge of objectives, creates benefits, and forges strong stakeholder relationships. It had been put to use managing public resources. The most effective, facilitating, and successful collaborative planning throughout the society is identified through consensus building dynamics and involving multiple "stakeholders" (Healey, 1998; Neth et al., 2022).

Leadership is seen as a key component in bringing together many characters on a stage and in steering during periods of collaborative process (Ansell & Gash, 2008). The literature focused more on institute leadership but emphasized less on the inter-organizational collaboration perspective's explosive rise. A study of senior managers found that many actions are stressed in Leadership (Sisto, 2018). The United States adopted the "collaborative governance" method in the 21st Century when there was a high demand for better education, well-being, protection, and safety, stimulating financial progress and organizational repair and expansion. In addition to the United States, several other countries worldwide have adopted collaborative governance through various approaches or tactics. Networks of cross-sector partnerships have developed into a source of issue-solving at several levels in the United Kingdom, for example, at the

department of public safety, technology, and health (Sullivan & Skelcher, 2002).

Crisis Management

A crisis is a critical situation where a person, a group of people, and an organization are all at risk of something unfortunate and instills the feelings of agitation and rage among the masses that undergo it. Human beings are helpless when it comes to natural disasters. Moreover, crisis is also termed as, any action that disrupts the attainment of goals, a company's ability to function, or its existence that is hurtful to its employees, clients, or citizens (Faulkner, 2013). This viewpoint holds that disasters include emergencies while working with other pertinent areas. Troubles can develop into crises if managers and leaders do not manage them successfully (Ustun, 2014). In essence, natural disasters are not crises, it is the circumstances that bring about the crisis. For instance, people experienced health and economic crises following the flood and earthquake (De Sausmarez, 2007). It has been determined that natural disasters, such as floods and earthquakes, are an external problem. When a crisis strikes, the organization is in control of it and is the cause of the abrupt calamity. Although both crises and disasters are deliberate events, the concept of crisis has a broad definition that includes change and learning practices in policy (Birkland, 2006). A management approach, known as Crisis Management, is required to control or limit unexpected crises effectively. Therefore, effective management practices include looking for potential crises and those that have already occurred and their impacts (Hillyard, 2000).

Many academics have provided definitions of crisis management with respect to organizational practices. It is described as a "systematic attempt by organizational members with external stakeholders to avert a crisis or to manage those that do occur effectively" (King, 2002, p.238). Crisis management is a methodical approach to problem-solving that looks at past events to determine the best course of action and solution. Crisis preparedness is crucial because it allows for condition control before a crisis occurs (Nakhoda et al., 2018).

Response, recovery, preparedness, and mitigation are the four phases of crisis management (Bumgarner, 2008). Managers move through these phases to deal with the event. Mitigation refers to the actions taken to

address and save human lives. Whereas, preparedness means being prepared before a catastrophe occurs. However, before a disaster occurs, preparation is done to maintain and enhance mitigation. The main goal of planning is to save human lives. Recovery is the ongoing process that a person, group of people, or organization does to work during and after a tragic incident. It does not imply that an organization's capacity to respond to a disaster will enable it to operate at its maximum possible level in all circumstances (Ustun, 2014). Response and recovery both fall within the post-disaster umbrella. Crisis management organizations primarily work to aid recovery by devoting their skills, resources, and time to help lessen the crisis (Khan & Khan, 2008). According to Warfield (2008), disaster management's primary goals are to minimize human casualties, ensure adequate compensation for catastrophic losses, and complete tasks expeditiously. The disaster management cycle clarifies that it is an ongoing process in which state and public society actions and plans have been held to lessen the impact of disasters, respond during a crisis, and take action to overcome the tragedy.

Crisis management is sometimes referred to as change management in the literature and it is defined as the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers (Hornstein, 2015).

Network theory is appropriate to explain interdependent cooperation. Network and collaboration are used interchangeably in the literature, which must be clarified when explaining the organizational structure and process. The distinction is that networking is a structure where a process happens and collaboration is the process. It denotes that networks' shared system binds certain players together. This intergovernmental arrangement can be formal or informal, depending on how the issue is resolved. A group of individuals, an organization, or both can be actors (McGuire, 2002).

Coordination and communication are the cornerstones of the collaborative process in every crisis, which helps the public to make better decisions. Numerous organizations, intergovernmental organizations, and cross-sector reactions have demonstrated the value of collaborative processes before and after a crisis by employing communication as a means of participation. Collaborative governance shows response and involvement by reducing the number of challenges (McGuire, 2002). Crisis managers

have aided and facilitated the process of responding to emergencies. Following that, these managers and leaders are in charge of maintaining contact with their stakeholders and approaching policymakers (Waugh & Streib, 2006).

Regional Disaster Management Organization

Pakistan Vision 2025 is the cornerstone of Vision 2047, a long-term plan to transform Pakistan into an Asian Tiger and one of the top 10 economies in the world. This idea aligns with SDGs to lessen climate change and other national disasters. Therefore, according to the 18th Amendment, most of the federal government's duties have been delegated to the provincial governments and authorities have been established to help reduce crises (Zeshan & Khan, 2015). It indicates that these authorities collaborate with numerous entities to increase efficiency.

The "Hydro Framework of Action" was first made public as part of the UN policy for disaster reduction and was signed by 168 nations, including Pakistan. The Government of Pakistan broadcasted the National Disaster Management Ordinance in 2007 to establish a system of National Disaster Management in the country. It was done to fulfill its obligations to the world and to deal with the situation that resulted from the earthquake on October 8, 2005. After that, in December 2010, this ordinance became the Act 2010. This law establishes the national, provincial, and district levels as the three ranks for the disaster management system (NDMP-2012) (Chaudhry et al., 2015).

Establishment of PDMA

To efficiently manage the catastrophe following the NDMA Act, the NDMO formed the Provincial Disaster Management Commission (PDMC) and Provincial Disaster Management Authority (PDMA). Both institutions are responsible for creating a framework to handle natural and artificial disasters. The KPK government began PDMC and PDMA on October 27, 2008 to promote disaster preparation and management within the province. NDMA has created a framework for the NDMF, which is supported by law for execution. Previously, the Provincial Disaster Commissionerate took responsibility for providing assistance, financial compensation, and rehabilitation to those impacted by natural disasters. The duties of the Relief Commissionerate were combined into a new entity following the creation of PDMA.

Punjab Provincial Disaster Management Authority

The management authority has developed disaster risk reduction strategies by retaining the seven global targets of Sendai Framework for Disaster Risk Reduction (DRR), which are also important to the SDGs. PDMA is fully aware of the altering global scenarios, such as climate change and disaster risk reduction. The two primary components of international DRR tactics are any disaster-related incident that serves as a lesson learned and the general openness of the populace to such harms. Punjab floods have a long history in Pakistan, between 1947 and 2019. Punjab, Sindh, Baluchistan, and Gilgit-Baltistan were affected by the 23 biggest floods of history and in 2010, Pakistan experienced a mega flood. According to Aslam (2018) this has been noticed that Pakistan has suffered a financial loss of US$38.165 billion between 1947 and 2015. In Punjab, riverine floods frequently occur during the monsoon season. The flood of 2010 in Punjab affected about 6 million people and 350 homes were damaged. In Punjab, 55 homes were destroyed in the 2014 flood, the second major flood to impact the region after the 2010 flood. Earthquakes, less frequent in Punjab than in other provinces, are another type of natural calamity. According to Piñeros (2020), this has been more focused on knowledge regarding disaster management across stakeholder that the prevention could be managed effectively.

Theoretical Foundation

Ansell and Gash's (2008) Collaborative Governance Model

According to Ansell and Gash (2008), list of factors that promote collaborative governance, starting conditions, institutional design, and facilitative leadership are all key factors supporting the collaborative process. The model's primary variable can be considered as the collaborative process. In addition, other contributing variables support collaborative governance, such as face-to-face communication, trust-building, dedication to the process, common understanding, and quick results.

Institutional Theory

Berthod (2016) asserts that an organization does not function as a single identity. It must communicate with other organizations to fulfill legal requirements, cultural variations, conventions, and values. Collaboration is necessary for the organization to sustain efficiency.

Scientific Management Theory

Taylor was the first to represent the scientific management theory in administration. The main objective of this theory is the standardization of work to guide the workforce based on specifications and convenience of the planning room and department, provide formal training and guidelines to staff, and provide workflow efficiency (Taylor, 1914).

Research Methodology

This study gathered data qualitatively using semi-structured interviews, which were conducted with the senior executives of the PDMA, and purposive sampling was used to select participants. The research methodology emphasized greater generality in framing original research concepts and participants' perspectives and that words rather than numbers are the focus of the investigation. This study employs an inductive methodology, which connects theory and research (Bryman, 2016). It is exploratory research as it describes the current PDMA crisis management environment. The study obtained information from officials aged 17 and above, particularly from the PDMA, Punjab. To establish the face validity of the interview guide in the current study, feedback from the supervisor and also the opinion of experts in the relevant field were obtained (Hassan et al., 2022).

At first, the researcher requested the higher authority of PDMA to grant permission for conducting interviews. After outlining the purpose of the study, the Director of PDMA permitted to conduct semi-structured interviews with managers aged 17 and above. According to Landsheer and Boeije (2010) the interviewee and interviewer must be open and sincere in their questions, responses, and attentive listeners during the interview. Interviews also took into account PDMA policies, organizational structure, and cooperation. The verbal and non-verbal cues were also documented and observations were made to produce a wealth of data during face-to-face interviews.

Data Analysis

Transcripts of the data from twelve (12) interviews have been created. The transcripts were given codes, which were then categorized. The themes produced by categories were later used for thematic analysis (Bryman, 2016). Data from the interview is saved by voice recording and transcribed after listening. Codes were applied to the data after transcription, classifying

them on the basis of similarity. Four themes were further categorized into sub-themes to address the research objective. During transcription, the following four major themes were observed.

Collaboration between Stakeholders in Crisis Management

The researcher questioned senior management about their role in effectively minimizing disasters by working with various stakeholders.

Disaster Management Authority as a Central Body

The ability to minimize disasters through collaboration between various stakeholders is the most significant advantage. According to most respondents, it is a crucial organizational body to forge a means of communication and reinforce the weaker stakeholders so that all provincial disasters fall under their purview and prompt responses can be made. Most of the respondents believed that there is a need to establish an organization that could deal with the calamities. One of them (Respondent 08) stated:

> Basically, there have been many disasters that have threatened Pakistan throughout its history. We have experienced mega disaster floods in 1992, 2010, and 2014, as well as a devastating earthquake observed in 2005, so we have several disasters facing our country and having multidimensional and keeping in mind that Multi hazard potential.

Moreover, the opinion of a respondent (11) regarding PDMA is as follows: "This organization was created to manage disasters better and to battle them; the 2005 earthquake was one such occurrence that shook the country and made people more aware of their surroundings". One respondent brought up a crucial point: "Since the 2010 floods and onwards, the PDMA Punjab has played a crucial role in organizing flood relief, rescue, rehabilitation, and reconstruction activities". Therefore, it is evident that the PDMA's services are essential to its success because it is a policy-making organization and all of its facilities and services are offered to the general public with the cooperation of the appropriate stakeholders.

The interviewees covered the organization's establishment and how the PDMA authority operated under the 2010 NDMA Act. PDMA followed the rules of the National Disaster Management Authority (NDMA). Additionally, PDMA was named after the relief department,

which served as a separate entity. "The NDMA is our parent institution", according to one of the respondents (no. 09). He further stated that, "we are acting as a separate entity and within our premises, we are not required to submit any form of a report to the NDMA. We just followed the rules." Another respondent (01) stated that the "Disaster Management Authority is a coordinating agency to work with all relevant life departments and agencies to mitigate flood, risk, and relief activities." As a result, disaster management must function as a central organization since, at the provincial level, it may be referred to as an alerting body that constantly monitors for disasters, attempts to prevent them, and keeps the public informed.

Stakeholder Inclusivity

Nearly all of the participants responded that the stakeholders are the body of the disaster management authority, carrying out the roles and responsibilities laid forth in their SOPs. Respondent 07 stated, "Every stakeholder has certain responsibilities and obligations. When people work together, they know their responsibilities, but we must act as a team to succeed". According to Respondent 12, "Our stakeholders include the general public and numerous other departments, such as Deputy Commissioner, Rescue 112, the tax department, and any field force that assisted us in crisis management". It indicates that the PDMA inclusivity of stakeholders will vary depending on the disaster's kind.

Plans and Structures for Collaboration

The consensus regarding collaboration is that it typically results in efficacy, where problems are resolved through speaking and communicating with pertinent parties that can better handle the issues. Respondent 01 stated that the problems are more effectively addressed through teamwork, ultimately leading to higher performance. He said, "Well, that's quite clear. When two organizations collaborate, their performance improves, and handling a variety of issues becomes simpler". As said by a respondent (11), "When you have a good administration, the way you are collaborating and has been a public service delivery, is an indicator of governance. It must move toward a better government".

According to Respondent 07,

> PDMA has mapped out an activity period for each year. Where we made our plans for the activities we would carry out throughout the year. The institutional structure is essential for the cooperation with

stakeholders, as is the respective framework, as the collaboration's primary goal.

In a collaborative framework, it is crucial to distribute plans among all parties so that everyone involved may understand their responsibilities. According to Respondent 06, "Multiple departments are working with us and have communicated their plans. All DCOs and other departments received our catastrophe management plans. All the PDMAs adhere to the NDMA Act of 2010 and carry out their duties by its provisions".

To minimize the tragedy, it has become clear that multiple organizations are working together. The PDMA is a central organization that interacts with its stakeholders through the relevant collaborative framework, wherein various plans are communicated with actors to carry them out. It is about a shared responsibility.

Conditions of Collaborative Governance in Crisis Management

Following are the fundamental components of collaborative governance that affect crisis management, presented by the respondents.

Facilitative Function of Leadership

It has been demonstrated that leadership is crucial in maintaining the reputation and closing the communication gap. It was clearly stated by Respondent 08 that, "the institutional/organizational leadership capacity does matter". According to Respondent 05, "Leadership leads to the efficient management of crises. Better crisis management strategies and more effective and experienced leadership will exist. An experienced leader can handle problems more skillfully than a less experienced one. Establishing a meeting schedule and making choices are crucial leadership tasks".

Respondent 12 said, "Work without a leader is pretty challenging because a leader has their own opinions on everything. A leader is the only one who can communicate with other departments and stakeholders".

Cyclical Process of Communication

Most respondents stated that communication was the best method for transferring understanding, initial agreement, and stakeholder trust. Many participants discussed the value of the collaborative approach, emphasizing how it is an ongoing and continuous process that unites them all under one

roof. It is crucial since, according to Respondent 01, "Collaborative processes are extremely important when considering all of these factors and finding ways to close the communication gap." Therefore, a collaborative approach is a warning to be vigilant and to work together. Respondent 04 stated that "communication is the main bridge to pursue any other strategy". The awareness sessions were referred to by the respondents as a crisis committee. When a method of open discussion has been used, they also asserted that because of technology, for instance, WhatsApp groups, collaborative processes today are faster than before.

The interviewees talked about the plans for their respective regions and domains. It was also mentioned that each province has various strategies based on its demands and has tailored its policies to multiple disasters. There is a separate plan of action for each region, according to Respondent 09. Similarly, according to Respondent 17, "Communication is advantageous since it fosters interpersonal connections. It is simple to address the condition when stakeholders have good relationships with one another". Additionally, trust is built through communication. Unfortunately, due to natural disasters, pre-activity preparedness should be done before they become worse.

Adopted Collaborative Governance Strategies for Crisis Management

Early warning and compensation techniques, in line with respondent training, can reduce the need for crisis management.

Training Approach

Training is a fundamental requirement for all employees, with specific SOPs recommended to each worker based on their employment. Training has several benefits and its type will depend on the nature of the job. In this regard, Respondent 10 said,

> We occasionally train our team; further training is necessary due to the nature of the job. The movement is relevant when we provide training by the delegation where various seminars have been held in addition to occasionally doing surveys for disasters.

Training in crisis management is required for all parties involved in duty performance. Because training is a requirement of the job, most respondents cited Rescue 1122 and the armed forces as the key stakeholders who are already trained compared to others.

Early Warning System

The early warning system is a pre-strategy that helps ensure effective crisis management. The majority of the respondents mentioned the early warning technique. They discussed their plan of action. Most respondents stated that they typically emphasize more on taking initial measures rather than after a crisis. According to Respondent 4,

> We have several disaster risk reduction methods in which we use various strategies to comprehend disaster risks, increase disaster risk governance to manage disaster risk, and to build back better in recovery, rehabilitation, and reconstruction. We also have another crucial tactic, which is early warnings via satellite connectivity.

Respondent 07 argues that the goal is

> to provide a better public service with the assistance of our actors who are all seated in our CONTROL ROOM and can communicate by SMS and telephone to warn them of any problem. We have attentiveness levels of A, B, C, and D, which can only be achieved by communication with stakeholders.

Compensation Approach

Following the crisis, a compensation strategy was employed. Most respondents spoke about the recent unexpected flood that crossed the Sutlej River. This forecast was made after listening to the news and Respondent 12 detailed the compensation approach through the involvement of numerous stakeholders. He said:

> We had an issue with the Sutlej River because the water flows from India. Nevertheless, thank God that not much of what we anticipated happened with the water. Despite this, we delivered food hampers in numerous regions, such as Okara, Kasur, Pakpattan, and other related area. With our pertinent stakeholders' assistance, we prepared 150k food packages for individuals before entering and waiting for the water. There, our crews had already arrived.

Challenges with Crisis Management

Mostly, the respondents discussed difficulties they encountered during crisis management. They pointed out that the unforeseen nature of disasters is their biggest obstacle, since it makes them anxious that people often do

not take crises seriously. Besides these, the lack of administrative will is another difficulty.

Occurrence of Unexpected Disasters

The unforeseen events of calamity have been a challenge. Collectively, the participants expressed,

> We have yet to set a specific plan for dealing with such a catastrophe because it depends on the nature of the situation. Additionally, an earthquake is an unexpected calamity. Our technical system needs to be updated because we need more sophisticated alarm systems to predict earthquakes.

Respondent 06 reported the following:

> We had experienced a crisis when we were less conscious of the circumstances and less prepared for the disaster; we occasionally encountered a significant issue that was difficult to manage over time, which we might call a sudden disaster. We had to contend with the risk of human casualties because earthquakes are unexpected natural disasters. In the event of flooding, individuals have lost their homes. That is the difficulty we are dealing with.

Discussion

Institutional Theory

Institutional isomorphism is described as supporting effectiveness and legitimacy (DiMaggio & Powell, 2004). Organizations frequently strive to incorporate several methods from several industries into their operations. Coercive isomorphism, mimetic isomorphism, and normative isomorphism are the three dimensions of institutional isomorphism.

According to interviewees, the guidelines and instructions provided by the NDMA occasionally rotate a typical letter to warn the provinces following an earthquake and political issues also impact institutional procedures. For instance, the PDMA constructed a control center in Punjab to obtain flood-related information and arranged for a telecom operator to operate a webpage for public service messages.

Collaborative Governance Model

Public Administration is now associated in the literature with newly created concept of collaborative governance. Additionally, traditional public administration switches from government to governance. As a result, this information becomes specific, increasing the need for collaboration (Ansell & Gash, 2008; Gibson, 2014). This idea is directly related to network governance, multi-actor governance, participatory governance, interactive governance, and collaborative public management (Ansell & Gash, 2008; Emerson et al., 2012).

The influence of collaborative governance in crisis management has been explored using this concept. This model is connected by identifying key factors that guarantee the success of a collective form of governance. The explanation of Ansell and Gash (2008) regarding the factors influencing collaborative governance highlights the importance of starting conditions, institutional design, and facilitative leadership for the collaborative process.

Starting Conditions

Collaboration can take various forms and the agency and stakeholders can either facilitate or discourage the collaboration. A partnership can only begin under certain circumstances, such as when all parties involved share the same objectives and have a history of working together.

Interviewees emphasized that the history of crises in which the public suffered and had to deal with numerous imbalances motivated the stakeholders' participation. A PDMA was established to aid citizens in dealing with the impending crises. A few issues in terms of stakeholder administration, as well as unfair resource distribution were mentioned by the interviewees.

Facilitative Leadership

According to Ansell and Gash (2008), the second variable of collaborative governance and leadership activities is utilized to direct the collaborative process regarding challenges. According to Ricard et al. (2017), literature has focused more on leadership "within the organization" and less on the rapidly expanding "inter-organizational collaboration." The three facets of Leadership are transformational leadership, interpersonal leadership, and network leadership. These leadership philosophies and their

associated actions stress that leaders must take proactive action for the improvement of the collaborative process.

The above-mentioned activities are significant in leading the conversation, bridging divergent points of view, connecting concepts and stakeholders, and setting the stage for stakeholder engagement. The maintenance phase will likely improve if the leadership actively carries out these tasks (Sisto, 2018). However, organizations may use several formal or informal leaders for successful collaboration.

Institutional Structure

It alludes to the fundamental guidelines and procedures for collaboration, which serve as the basic procedural validity of the process and are employed to direct and regulate contact in the collaborative process (Ansell & Gash, 2008).

Conclusion

The study explored the role of collaborative governance in crisis management, identifying the role of the disaster management authority, and its stakeholders. According to the respondents, the disaster management authority is a central coordinating agency for the provision of public services. Multiple parties could interact with each other using the collaborative platform created by this organizing agency. The plans and policies for crisis reduction are put into action with the assistance of these stakeholders. Each performer acted according to the duties and functions assigned to them. The findings emphasized methods effective in managing natural disasters, such as floods and earthquakes. Therefore, during the monsoon season, the coordinating agency and stakeholders communicated in the PDMA control room while monitoring flood warnings.

It has been concluded that collaborative governance's fundamental and complementary conditions impact crisis management, particularly when building collaborative processes. It has been discovered that the key prerequisites for developing the collaborative process are leadership activities and face-to-face communication. If these circumstances are sufficient, the crisis management may be protected. Contrarily, supportive settings entail an initial understanding, trust, and commitment that enhance the collaborative process without endangering crisis management. Additionally, it has been determined that the collaborative process is a

cyclic process of communication and face-saving mechanism. Thus, these circumstances significantly improved the collaborative process.

Future Directions and Limitations

This research is carried out in Lahore, the county's second-largest city of Pakistan. The study's main generalizability constraint stems from the fact that other cities may experience different crisis scenarios. For instance, if KPK experiences an unexpected earthquake which incurs significant infrastructure damage, the province's method of collaboration may differ from that of Punjab. The results of this study can be applied to future policy-making and expanded to other Pakistani provinces to further generalize the results. Future researchers can collect data from industrialized and developing nations for comparative study.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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