Interorganizational Relation in Disaster Response in Developing Context: Assessing Response to Beirut Explosion

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Abstract
This paper focuses on the role of local community organizations in disaster management following the Beirut explosion of August 4, 2020. It answers the following question: How can interorganizational relationships be effective in their response to disaster in a developing context? The main argument is that a lack of communication and collaboration made non-profit organizations’ interventions unsuccessful, and governmental support is necessary for successful interorganizational coordination. This paper develops a framework for disaster response that can be adapted in developing countries. Its theoretical importance is in adding to scarce literature on interorganizational relationships in developing contexts.

Keywords Disaster response · Developing country · Interorganizational relation · Weak government · Corruption

Introduction
Disaster management experiences differ from country to country. Theoretically, the role of governments should be to prevent disaster through policy enactment and resilience building. However, with a lack of planning, governments face difficulties in responding to disaster; these difficulties are multiplied in corrupted and developing states. In this type of state, local community and non-profit organizations are at the forefront of disaster response.

Among Arab countries, Lebanon has the lowest level of preparedness to disasters (El-Kholei, 2019). The country is at high risk of fires and floods and,
more rarely, at risk of serious seismic activity (Baaklini, 2019); in addition, Lebanon is vulnerable to manmade disasters, such as political conflicts, urban deformation, and conflicts. For example, in the last two years, Lebanon has faced severe disasters due to a lack of preparedness: forest wildfires in October 2019; recurring floods every winter; the garbage crisis; and recently the response to the Beirut blast. These events demonstrated the lack of policies, infrastructure, regulations, and strategies to prevent and respond to these types of disasters.

The most recent manmade disaster was the Beirut explosion of August 4, 2020. Two waves of explosions were enough to cause physical and psychological damage across Beirut and its boundaries. Given Lebanon’s pre-existent instability, responding to this disaster was beyond the scope and resources of the government. The timing of the explosion coincided with concurrent battles against COVID-19, corruption, and economic uncertainty. At the time of the explosion, associations were already exhausted in terms of services provided due to the lack of human and financial resources. Within a few hours of the disaster, different groups, volunteers, non-governmental organizations, and for-profit organizations were on the ground, taking over the response to the disaster. While the international community expressed its willingness to help the Lebanese population directly through aid and funds to non-governmental organizations, local communities in Lebanon played the pivotal role in disaster response.

This paper will focus on disaster management in Lebanon and the role of the local community organization in responding to the Beirut explosion. It will answer the following question: How can interorganizational relationships be effective in disaster response in a developing context? What role did the Lebanese government and local communities play in responding to the blast? The paper’s main argument is that the lack of data, communication, and collaboration made the interventions of non-profit organizations not as successful as they could have been. Furthermore, in order to provide an efficient disaster response, the government should be available to support the local community and facilitate interorganizational coordination.

The theoretical importance of the paper is its contribution to the scarcity of literature on interorganizational relationships and community response in developing contexts. It will develop a framework for disaster response that can be adapted in developing countries prone to natural and manmade disasters. To do so, this paper will be divided into four major parts: the first part will review the disaster management strategies in Lebanon and the unsuccessful responses to disaster throughout history in addition to the role played by local communities; it also reviews the effect of corruption within Lebanese administration and sets the scene to the Beirut explosion. The second part will review the literature on interorganizational relationships developed between organizations and the state in disaster response. The third part will present the paper’s theoretical framework and methodology. Part four will present the study’s findings, and Part Five presents the analysis. The paper concludes with recommendations for future research.
Part One: Disaster Management Strategies, Corruption in Lebanon, the Beirut Explosion and the Role of Local Communities

A few hours after the explosion on August 4, associations, and independent volunteers from all over Lebanon were in the streets of Beirut searching for missing people and removing debris. It took a week after the explosion for the government of Lebanon to respond to the disaster; this response took the form of introducing a policy to manage and control NGOs working on the ground. The policy stated that all NGOs involved in relief programs must register and present their papers to the Lebanese Army in charge of managing donations. In contrast to the High Relief Committee directed by the Prime Minister, the Lebanese Army was a trusted entity by the Lebanese people, mainly because it was considered apolitical. It also played a social role since it was responsible for the management of donations and security on the ground (Antonios et al., 2020). International armies also cooperated with the Lebanese army in the search for missing people. The disaster shed the light on the problems of Lebanese bureaucracy, which is permeated with corruption and negligence. The Beirut blast required Lebanon to rely on its public represented by NGOs and, to a certain extent, the Lebanese Army.

Historical Overview of Disaster Management Efforts in Lebanon

In Lebanon, the building of a disaster management plan has been hindered over the years by different obstacles. Historically, disaster risk management was not a priority for the Lebanese government; however, things changed during the disastrous winter of 2002 when the government introduced building codes specific to earthquakes and fires for buildings exceeding three stories (Peters et al., 2019).

The government developed a disaster risk management strategy again in 2005 when the Hyogo Framework for Action was adopted. This framework provided Lebanon an outline to “plan, implement and coordinate disaster risk reduction” (UN News, 2020). Moreover, the Hyogo Framework for Action created a National Committee for Disaster Risk Reduction. One of the main roles of this national committee was to assist vertical or horizontal coordination of national and multinational sectors. On the local level, this committee worked among municipalities (UNISDR, 2012) and pursued collaboration between regional, international, and local organizations to ensure the participation of municipalities in the UNISDR global campaign, Making Cities Resilient (UNISDR, 2012).

However, with the 2006 war, the implementation of the Hyogo Framework was halted. It was three years after, in 2009, that the UNDP established “Strengthening Disaster Risk Management Capabilities in Lebanon,” a project which focused on disaster risk management. This project aimed to establish a disaster risk management unit and a national strategy to reduce disaster risk.

The UNDP project was not fully implemented between 2009 and 2012. Several factors hindered or decelerated the project that continue to obstruct similar projects. (1) The first hindrance was the lack of funding (Zaarour, 2015). The large economic
deficit in Lebanon limited the number of ministries with budgets specific to disaster management. Given that disaster risk management remains deprioritized by the government, there remains a budget deficit. According to the National Progress Report on the implementation of the Hyogo Framework for Action for 2013–2015, the institutions or ministries with disaster management budgets include the High Relief Committee, the Ministry of Public Works and Transportation, the Ministry of Energy and Water, and the CNRS. Despite this budget allocation, a funds management problem persists (Issa, 2019). (2) The second obstacle is Lebanon’s shifting political scenario (Zaarour, 2015). (3) Third, the Syrian Refugee Crisis has affected governmental priorities.

Between 2010–2012 multiple initiatives emphasized disaster preparedness. The initiatives covered disaster awareness, donor engagement, preparation of Hyogo Framework for Action reports, training, and national risk assessments (UNISDR, 2012). In 2013, the government mandated the National Disaster Coordination Committee by decree no. 41.2013 to coordinate disaster response. This committee included the Secretary of the Supreme Council of Defense and members from the DRM Unit and linked to the Prime Minister (Zaarour, 2015). However, between 2017–2021 many forest fires and internal disasters illuminated and intensified interest in the necessity of developing a disaster response coordinated between sectors in Lebanon.

This section has illustrated the lack of a clear disaster management plan in Lebanon which in turn has made the state prone to many disasters without proper preparedness and response strategies. This has left disaster relief in the hands of non-profit associations. The next section will review the role played by associations in disaster response throughout Lebanon’s history.

**Role of the Non-Profit Sector and Community in Lebanon Historically**

Two main incidents categorized as disasters in Lebanon marked NGO involvement in disaster response. The Lebanese civil war (1975–1990) marked the first proliferation of NGOs. In fact, for these fifteen years, the NGO sector, rather than the government, provided all public services (Haddad, 2018). The country’s political and economy instability, in other words, made a space for NGOs to fill the gap. During the war, the role of associations was specific to certain organizations and religious groups due to divisions created by the war (Haase & Haddad, 2015; Haddad et al., 2018).

The second main incident considered a disaster was the war with Israel in 2006. Chaaban (2008) and Haddad et al. (2018) stress how NGOs shifted their missions and behaviors during this period. Some NGOs refocused their work from advocacy to relief activities (Haddad, 2020; Haddad et al., 2018). While the war led to the interruption of several NGO projects, it also created bonds between different organizations providing relief and emergency response.

These incidents and the proliferation of corruption in the public sector brought citizens together. Lebanon’s public sector is defined by nepotism, favoritism, and corruption, which has made fighting corruption a reason for citizens to join civil organizations (Haddad et al., 2018). Throughout the country’s history, associations
have been the main players in disaster response, stepping in to replace the role of the state with international funding support (Haddad et al., 2018). After the explosion of August 4, 2020, the proliferation of NGOs continued, and collaboration between organizations marked the solidarity of Lebanese people, both residents and immigrants, and the shared intention to rebuild Beirut.

To analyze the interorganizational relationships that developed after the explosion and to assess the response of associations in light of a weak state, the next part will place the paper in its theoretical context through a review of the literature on interorganizational relationships and the role of the state.

**Corruption in Lebanon**

The Beirut port explosion was preventable. Following the explosion, evidence showed that the blast resulted from a corrupt system, corrupt public sector employees, and corrupt public administration (Al Moghabat, 2021). The presence of ammonium nitrate found at the port was illegal. The investigation regarding who was responsible for stocking the ammonium nitrate at the port is still ongoing. Public servants in charge of the port and Lebanese customs agents are politically affiliated, making the investigation difficult (Cortés et al., 2020).

Corruption in Lebanon is not a recent phenomenon. Many variables have played a role in the spread of corruption, and efforts have been made to fight it over the years. However, these efforts have been too slow in the face of growing citizens’ needs. Since 2019, Lebanon’s rank on the Corruption Perception Index has risen dramatically. Between 2019 and 2021, the CPI rank increased from 139 to 154 out of 180 countries (Transparency International, 2021). This is due to various political, economic, legislative, and infrastructural factors.

**Political Factors**

Lebanon is a fragmented society divided between 18 religious sects. Despite the country’s consociational democracy (Haddad, 2017), this sectarian division has become embedded in the actions and performances of public institutions. Governmental fragmentation has hindered the implementation of DRR measures and disaster response, while fragile political compromises have led to weak governance. and The Lebanese political system is associated with corruption, clientelism, and nepotism; the government serves political parties and sectarian interests over the public good (Atzili, 2010). The country’s political system was the fruit of the National Pact of 1943, which enlarged the role of sectarianism and embedded the representation of religious groups in public administration (Parle & Kisirwani, 1987). The Pact was structured on a sectarian government, dividing roles between the Maronites and the Sunnites, resulting in the following division of Parliament: for every six Christians, there are five Muslims. The President of the Republic is a Christian Maronite, while the Prime Minister is a Muslim Sunnite (Zakaria, 2020).
The civil war heightened the interference of religious groups in public administration, especially with the proliferation of political parties’ intent on defending their interests. The war ended with the Taef Agreement of 1989–1990, which further developed the 1943 Pact towards a new system that preserved the balance between Christians and Muslims, especially with the rise of the Shiite community. Members of Parliament are divided equally between Muslims and Christians (64:64), and the Speaker of Parliament is a Muslim Shiite. Public officials and vacancies are also divided along sectarian lines (Zakaria, 2020). Sectarianism in Lebanon affects the decision-making process, especially with regards to public administration and funding decisions; each sect ensures its own gain. (Republic of Lebanon, 2021, p. 22). Therefore, sectarianism within associations and weak political will hinder the process of fighting corruption (NACS, p. 22). Corruption practices in Lebanon have led to a dysfunctional democracy, lack of impartiality in the judicial system, decreased regularity, and a closed economy (El Sayed, 2020).

The Lebanese system is a mix of sectarian patronage and clientelism (El Sayed, 2020). In the race to power, political elites provide favors or opportunities to citizen clients in return for votes. Services are also offered to supporters of political parties. Sectarian patronage began with the civil war and expanded after (Zakaria, 2020). There is a slight difference between corruption and clientelism. Clientelism is based on a person who uses his position to assist a party in obtaining services that he is not entitled to receive, while corruption is an illegal transaction of goods between a public official and the private sector and individuals for the enrichment of the public official. One common practice of corruption in Lebanon is called "wasta," which refers to accessing services and opportunities through citizen connections (Farida & Ahmadi-Esfahani, 2008). Another common practice is bribery, in the form of paying a public employee a sum of money to receive faster services. These practices reflect the impatience of Lebanese citizens and the corruption embedded in the public sector (Farida & Ahmadi-Esfahani, 2008). In Lebanon, corruption is considered a way of life, and citizens rely on the exchange of bribes for benefits. In 2001, a UN study showed that 43% of Lebanese citizens use bribery regularly, while 40% admit bribing officials sometimes. (Farida & Ahmadi-Esfahani, 2008, p. 3). Despite the independence of judicial authorities tasked with resolving corruption issues and defending citizens, the Lebanese public accuse the judiciary of corruption (El Sayed, 2020). Since people resort to bribery for legal and other transactions, corruption in the judicial sector has hindered the role of the judicial inspection authority assigned in 2007 to supervising judicial impartiality (El Sayed, 2020).

**Economic Factors**

Corruption and economic problems are mutually linked. Lebanon’s liberal economic model has obstructed sustainable development in the country (El Sayed, 2020; Republic of Lebanon, 2021). The liberal economy is accompanied by weak state intervention (El Sayed, 2020, p. 215), conflict of interests between different sects, and political tranquility (leading to the deterioration of Lebanese economic growth El Sayed, 2020; Farida & Ahmadi-Esfahani, 2008). Economic deterioration has affected citizen
life standards. Unemployment and poverty levels have increased (Republic of Lebanon, 2021), purchasing power has been “undermined,” and the burden of taxes has grown. These consequences also constitute causes of corruption practices. Lebanese citizens do not receive adequate public services for several reasons, such as bureaucracy, political influence within public institutions, and the lack of resources due to the abuse of political elites (El Sayed, 2020). Citizens must rely on “wasta,” “bribery,” and other corruption practices to seek employment opportunities and access public services. With the recent economic crisis, Lebanese are facing difficulties doing business. Due to a lack of transparency, the business sector is subject to audits (El Sayed, 2020), and to preserve economic competitiveness, investors are turning to corruptive practices (Republic of Lebanon, 2021, p. 23).

Lebanon’s economic crisis and corruption in different sectors, especially the financial and banking sectors, have led to massive emigration.

**Legislative Factors**

Despite widespread corruption in Lebanon, efforts have been made to combat it through legislation. Anti-corruption legislation has been slow, however, due to the non-implementation of existing laws and other legislation gaps (Republic of Lebanon, 2021).

Enacting laws takes much time in the country, primarily such laws related to anti-corruption. The uprisings of October 2019 pushed the government to accelerate the process, especially since some laws took more than 12 years to be enacted.

Law 175/2020 took 11 years for adoption. This law defines the role of the NACC and specifies the methods of assigning its members. Although implementation of a newly adopted law should usually take three months, the timeframe of law 175/2020 was extended due to COVID-19 (Al Moghabat, 2021). The implementation of several laws depends on the National Anti-Corruption Commission (NACC); therefore, the deceleration in the NACC’s establishment casts doubt on the government’s will to implement anti-corruption laws and regulations (Al Moghabat, 2021). Furthermore, the National Anti-Corruption Strategy (NACS) was adopted by the Council of Ministers in May 2021, 10 years after the council began drafting it, and in October 2022, the first NACS progress report was published. The right of access to information law no. 28 was adopted in 2017 and in 2018 the whistleblower protection law no. 83 and the law on transparency in the oil and gas sector were adopted. Efforts are now focused on implementing the NACS and the United Nations Convention against Corruption (UNCAC) obligations on which Lebanon is a signatory (Republic of Lebanon, 2021).

**Infrastructural Factors**

Infrastructure is a key component of disaster management. Investing in infrastructure is necessary to diminish the impact of a disaster. However, in Lebanon, infrastructure is subject to corruption and political parties’ race to power. Over the years, wars have damaged Lebanon’s infrastructure and reparative efforts have increased
public debt. According to Khan (1996, 1998), previously colonized countries often have political systems based on clientelism.

Infrastructure in the country has always had connections to political clientelism, which increases during municipality and parliamentary election seasons (Issa, 2019). To collect votes, candidates have regularly advertised infrastructure maintenance, particularly of roads, as part of their electoral campaigns. Historically damaged infrastructure has made it difficult, however, for ministries to make repairs, especially with the economic crisis the country faces today. Notably, public works are only emphasized during election periods and forgotten during regular periods. They are primarily a method by which political parties access resources and secure their places in government. However, the accumulation of incidents and growth of corruption have, however, brought citizens together. The public sector in Lebanon is defined by nepotism, and corruption which has made fighting corruption a reason for citizens to join civil organizations (Haddad et al., 2018).

The Lebanese civil war led to the proliferation of NGOs. In fact, for 15 years, the NGO sector took over the provision of public services from the government (Haddad et al., 2018). This substitution continued post-war given the country’s prolonged instability. In other words, the political and economic instability that characterizes Lebanon has made a space for NGO work. During the war, associations and religious groups emerged providing communitarian services due to divisions created by the war (Haddad et al., 2018) Although the government tried to hinder NGO proliferation during this period, the need for services and the conflict itself encouraged the sector’s growth. The services provided after the war were predominantly communitarian (Haddad, 2017).

Background to the Explosion: Setting the Scene

The Beirut Port explosion of August 4, 2020 was a defining moment in Lebanon’s history. It was one of the biggest disasters of the last decade (Sivaraman & Varadharajan, 2021). The explosion resulted in massive casualties, affecting both Lebanese nationals and other residents (Human Rights Watch): there were over 200 deaths, 7,000 people injured, and 300,000 people were left homeless (Sadek et al., 2022; Yu et al., 2021; HRW 2021). Whether physically or psychologically, children were heavily affected: three children died, 1,000 were wounded, 31 were hospitalized, and 70,000 were left without homes (HRW 2021). Moreover, the blast caused heavy losses in the economic and financial sector, estimated at around 15 billion dollars (Yu et al., 2021), leaving a severe impact on small and medium enterprises (Venier, 2022) and infrastructure (Sadek et al., 2022). The medical sector was heavily affected since hospitals were destroyed and doctors overwhelmed (Sivaraman & Varadharajan, 2021).

On August 4, 2020, Beirut felt two shockwaves, which exploded warehouse number 12, containing around 2,750 tons of ammonium nitrate; fireworks bags were located next to the silos stock (Sadek et al., 2022). The two shockwaves left behind smoke: after the first explosion, white and gray smoke billowed and quickly colored the Beirut sky red and orange. The second explosion was accompanied by
a damaging white mushroom cloud (Sivaraman & Varadharajan, 2021). The shockwaves felt across Beirut and its periphery, including Cyprus (250 km away), left considerable damage, particularly windows and building glass, as far as 15 miles from the city center (Sivaraman & Varadharajan, 2021). A few days after the blast, the Lebanese government declared a two-week state-of-emergency that was later extended (Yu et al., 2021). Though investigations are still ongoing, and no official reports have been published (Sivaraman & Varadharajan, 2021), it is widely known that the explosion was caused by the storage of ammonium nitrate at the Beirut Port for six years.

**Presence of Ammonium Nitrate**

As the first investigation shows, around 2,750 tons of ammonium nitrate stocked at warehouse 12 exploded on August 4, 2020, due to welding work on the warehouse door. There was no minimum safety management for warehouse 12, which not only stocked ammonium nitrate but also held 30 bags of fireworks (Yu et al., 2021). Despite this enormous quantity, no measures were taken into consideration for the possible detonation of the ammonium nitrate in case of fire friction.

Ammonium nitrate came to the port by way of cargo ship "Rhosus," which arrived from Georgia on its way to Mozambique in November 2013. The ship was stopped and kept at the port by the Lebanese authority due to the ship’s mechanical problems and overdue tax payments (Sivaraman & Varadharajan, 2021; Venier, 2022; Yu et al., 2021). For safety reasons, the Lebanese authority decided to store the ship’s stock of ammonium nitrate in warehouse 12 designated for hazardous material in October 2014 (Sivaraman & Varadharajan, 2021). However, the warehouse was not far enough away from the residential region to keep residents out of danger (Yu et al., 2021).

**Influence on Infrastructure**

The port explosion heavily damaged Beirut’s infrastructure, through damage to the port and its buildings.

Previously, the port managed 60% of Lebanon’s goods importation, or 25% of Lebanon’s GDP, and had been developing at steady rate (Sadek et al., 2022; Venier, 2022).

Management of the port differed over the years. After World War II, a private company was responsible for the port from 1925 to 1960 until, in 1960, a Lebanese company took over. Then, in 1990, the port management was allocated to the state. Similarly, to the government, the port has been accused of mismanagement and corruption. The port infrastructure failed to guarantee safe operations and help develop Lebanon economically due to the country’s socio-political reality and lack of reforms (Venier, 2022). The estimated cost of infrastructural damage caused by the port explosion is around 4 billion dollars, with estimated economic loss at about 3 billion dollars.
Other than the port, the explosion damaged the city’s infrastructure, especially residential and commercial buildings. The blast devastated the city’s historic center known for its historical architecture and heritage buildings. Since 1990, new standards were introduced to building laws in part in light of Lebanon’s seismic activity and until 2005, no seismic code were introduced. In 2005, seismic codes were introduced to building above 3 floors. (Salameh et al., 2016) The shockwaves caused by the explosion damaged buildings and their facades for a distance of around 4 km; the Rafic Hariri International Airport facilities also suffered extensive damage (Sadek et al., 2022).

**Influence on SMEs**

Besides infrastructure damage, the Beirut port explosion constituted a new recession phase for Lebanon’s economy. Since 2019, the economy has been suffering, affecting the population. Small and medium enterprises especially, which make up 95% of Lebanese companies, now face significant problems due to the explosion.

The disaster exacerbated difficulties for all residents. After the blast, income inequalities were identified in the Mar Mikhaël neighborhood, one of the areas most affected by the explosion; there was also an increase in the number of families under the poverty level (Pietrostefani et al., 2022).

With inflation and the economic crisis, many Lebanese have lost their jobs. After the explosion, around 70,000 workers were laid off, emphasizing the challenges faced by SMEs and Lebanese employees (Venier, 2022).

**Part Two: Literature Review**

During disasters, since government resources are often not enough to provide a proper response, the country must rely on the support of NGOs (Curnin and O’Hara, 2019; Waugh, 2007). While the state has been involved in the disaster management process since the beginning of the twenty-first century (Kapucu et al., 2010, 2018), non-profit organizations have been the first to respond to disaster and are important actors in the recovery process.

The experiences of local communities during disasters differ based on the role of the state. This relationship depends on the political context of each country (Haddad, 2017). The literature shows that interorganizational relations are critical and necessary to disaster response. Coordination and cooperation in disaster response are always connected to wider debates focusing on the role of each actor – mainly the state, private for-profit, and non-profit sectors – in providing collective security (Bisri, 2016). This increased dependence on actors besides the state during disasters has opened a debate regarding interorganizational collaboration, collaboration with the state, and the means to surmount difficulties (Curnin and O’Hara, 2019; Hermansson, 2016). According to El-Kholei (2019), during a disaster the most important factor is the relation between two main actors: local authorities represented by
public institutions and the local community, particularly non-governmental organizations and syndicates. These relationships ensure collaboration and preparedness for disaster in line with the recommendations of the Hyogo Framework.

Thus, efficient and effective interorganizational relationships, or collaboration between NGOs, public, and private sectors, are prerequisites for proper disaster response (Moshtari & Gonçalves, 2017). In this regard, Roberts (2010) has argued that proper disaster response requires a networked form of government that links the federal, state, and local levels of government and private organizations.

**Cooperation, Coordination, and Collaboration**

As previously argued, cooperation, coordination, and collaboration among different actors is crucial for effective disaster response (Col, 2007; Yeo et al., 2021). At the cooperation level, actors share information and good will intentions. When upgraded to the coordination level, different actors share activities and resources. Collaboration stands at a higher level than the previous two types. At this level, organizations in different sectors share power and capabilities in addition to resources (Yousefian et al., 2021). Actors develop relationships based on trust and collective objectives (Kamensky & Burlin, 2004), creating rules and structures on which they base their interaction.

Collaboration is widely viewed as an indispensable tool when facing uncertainty and disastrous events (Arklay, 2015; Curnin and O’Hara, 2019; Waugh and Streib, 2006). The literature further argues that successful collaborative relationships should be based on preexisting interactions that help to enhance response when disaster strikes (Martin et al., 2016). The importance of partnerships and built relationships is also evident in the literature exploring collaboration in disaster recovery.

**Collaboration in Disaster Response**

Even though coordination within the public non-profit sector should be established before a disaster, Comfort (1999) asserts that extreme events need extreme coordination, more so than normal events involving routine coordination between sectors. What encourages collaboration in general and especially during extreme events are shared goals between different actors (Agranoff & McGuire, 2003; Kamensky & Burlin, 2004).

The literature highlights the necessity of emergency management and the role of collaboration between different sectors for effective response to disasters. Kapucu (2007) and Simo and Bies (2007) emphasize the need for collaboration during extreme events and disasters for two main reasons. (Kapucu, 2007; Simo & Bies, 2007) First, government agencies are not able to do everything on their own. Collaboration is considered by Bier (2006) as necessary to fill the gap left by the government and help agencies fulfill their responsibilities. Second, Kapucu and Garayev (2013) argue that the uncertain nature of disasters emphasizes the need to collaborate in disaster response (Kapucu & Garayev, 2013).
The literature describes the challenges that collaborations might face in disaster response. Simo and Bies (2007) claim that the relationships between organizations can encounter control and coordination problems which can make such relationships fragile.

**Interorganizational Relationship**

Some argue that interorganizational disaster response is likely to stronger than sole organization response because better solutions for big problems come from interorganizational relationships (Kapucu et al., 2018); further, collective actions combining public, private, and non-profit sectors require accelerated response (Kapucu et al., 2010). History sheds light on the role of interorganizational relationships in disaster response. These relationships are characterized by communication and collaboration between different organizations, sharing of resources and expertise, prevention of duplication in services, and creation of volunteer databases (Kapucu et al., 2018). Communities are called to work and cope collectively, sharing both pain and loss as well as responsibilities (Kapucu et al., 2010). Interorganizational relationships involve partnerships that demand dedication, and, in order to be effective, organizations should have the capacity to be partners within interorganizational relations (Kapucu et al., 2018). Interorganizational relationships are crucial, not only post-disaster but also before disaster occurs. Building a database of volunteers and available resources facilitates future disaster response and recovery. The unity and bonding formed during disaster partnership and collaboration can also help develop further collaborations (Kapucu et al., 2010).

A study by Simo and Bies (2007) shows that during Hurricane Katrina, the U.S. government was overwhelmed by failure. Due to weak governmental service provision, non-profit organizations mainly through cross-sector collaboration proved more capable of providing long-term recovery assistance. This situation revealed the importance of strong administrative arrangements (Simo & Bies, 2007).

Ink (2006) states that administrative failures lead to harsh consequences including higher numbers of deaths (Ink, 2006). Moreover, the importance of these intersectoral and interorganizational relationships are not specific to disaster recovery; they are also crucial for disaster preparedness. As Kapucu (2007) explains, establishing early relations between organizations is important because these interorganizational networks can aid communities when disaster strikes.

**Part Three: Conceptual Framework and Methodology**

There are several possible conceptual frameworks through which to analyze disaster response. Thomson et al. (2009) presents a multidimensional framework, with five components of collaborations: (a) administration; (b) norms; (c)
governance; (d) mutuality; and (e) autonomy. Curnin and O’Hara (2019) expand on this framework and argue the need for three factors for disaster recovery: (a) interorganizational structures; (b) trusting relationships; and (c) role clarity. However, the case of Lebanon is different. Because Lebanon is a weak, corrupt state with a lack of governmental transparency, the government lacks the trust of its population; it withdrew from the response to the disaster of August 4, 2020. Therefore, this paper analyzes intergovernmental relations in Lebanon to add to the literature on disaster response.

Data Analysis and Theory Building

In this research, we followed the guidelines for inductive research (Corbin & Strauss, 2014) and based our study on Gioia’s grounded theory building (Gioia et al., 2013; Villena & Gioia, 2018), which mainly follows qualitative approaches to analyze unexplored areas (Denk et al., 2012; Kirchoff et al., 2016). Thus, in the data collection we focused on emerging concepts and themes (Pratt et al., 2020), basing our process on the link between the research question and the data collected (Pratt, 2009). We focused on recurring concepts in the data, mainly in relation to interorganizational relationships and the role played by the government.

To understand interorganizational relationships and organizations’ relationships with the state, we conducted interviews with associations and initiatives that responded to the Beirut port explosion. Qualitative data were collected through a series of 25 semi-structured interviews (Krueger, 2014). We originally contacted all NGOs and initiatives that were active on the ground and listed on the platform daleel madani, which collected information on all active groups. All interviewees had direct experience on the ground and were involved in disaster response since the day of the explosion. Interviews totaled 25 since we believed that we had depicted a broad range of perspectives and we reached theoretical saturation with respect to the emerging concepts and themes (Strauss & Corbin, 1998). All interviews were conducted during March and April 2021 (see Table 2 in Appendix for a list of associations).

We recorded, translated, and transcribed interviews into separate documents; transcriptions were then thematically coded and analyzed through MaxQDA (Haase et al., 2018; Saldana, 2021). Given the difficulties in collecting valid data in Middle Eastern contexts (Clark, 2006; Haase et al., 2018), we used purposeful sampling in the selection of participants (Creswell & Piano Clark, 2011), who were asked semi-structured questions about (1) their role in the disaster response, (2) the relationship between the Lebanese state and associations, and (3) the relationship with other organizations and actors on the ground. Each interview was structured around the same five questions: (1) What services did your organization provide to affected people after the Beirut blast? (2) When did you intervene (directly after the disaster or later)? (3) What were the problems that you faced? (4) How would you assess interorganizational
relationships between the state, local government, and NGOs? (5) Do you believe your response was successful?

**Part Four: Findings**

This empirical study focused on the interaction between the state, organizations, and initiatives in the response to the Beirut explosion. The findings reveal the role of each of the players, the practices employed, and interactions within the disaster response.

The findings are divided into two main broad categories: (1) interorganizational relationships between organizations on the ground, and (2) the role of the state in responding to the disaster.

**General Findings**

As previously stated, 25 organizations were interviewed; of these, 18 were local associations and 7 were initiatives. By initiatives, we mean a group of people who organized together to respond to the blast (see Chart 1).

Of the 25 organizations, 5 were formed after the blast, while 20 were previously created (see Chart 2); of these 20, 8 were created to respond to COVID-19 and to Lebanon’s economic crisis (see Chart 3).

Of the organizations interviewed, only 20% had a history of disaster response and relief provision (see Chart 4). This point was stressed during interviews as experience in prior disasters would facilitate work on the ground during and after the Beirut explosion. The 5 NGOs with previous experience had participated in disaster relief during the Lebanese civil war or during the 2006 war.

“Of course, this was one of the biggest events in history, but with the experience we already had before, we had something to work with in the beginning, […] we already knew how to work”- (Respondent 7, 2021).

“It depends on the organization. Ours is diversified enough and was dynamic enough. So, we have a space close to 600 people, so we can really be dynamic

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**Chart 1** Type of Organization interviewed

| Type of Organization | Number |
|----------------------|--------|
| Initiative          | 7      |
| NGO                 | 18     |
| Total               | 25     |
enough to deploy forces and act. But again, some smaller organization did fab-
ulous work as well, so it’s not about scale but about experience and the way to
do things. So, both can be effective.” (Respondent 21, 2021)
Category one: Interorganizational Relation Between Organizations

Interviewees stressed the importance of interorganizational relationship during disaster response. Interorganizational relationship was evaluated according to two themes: cooperation and collaboration.

Cooperation

The first theme was cooperation with other organizations. Chart 5 indicates the assessment of cooperation between organizations in the response to the Beirut port explosion. Of the 25 organizations interviewed, only 2 organizations stated that they did not cooperate at all and preferred to work alone. Of the 23 other organizations, 48% assessed this cooperation as “really good”; 9 out of 25 confirmed that it was “good” cooperation but needed improvement. “Out of my experience, collaboration was very good; we were purely aiming to help people” (Respondent 13, 2021).

Thus, it appears that organizations understood the importance of cooperation in their disaster response. Prior to the explosion, the culture of cooperation between NGOs was either entirely missing. “There isn’t a strong culture of collaboration and cooperation in Lebanon because a lot of NGOs are politicized or based on religions or whatever. So, each NGO has its own agenda and it’s hard to find NGOs that are purely humanitarian” (Respondent 15, 2021). “However, since 2019, NGOs started collaborating and cooperating with each other,” as Respondent 11 (2021) explicitly stated. “Before, when things were half normal, there were a lot of egos, like anything else, between NGOs. All of this was put aside.”

Coordination

The second theme of interorganizational relationship revolved around coordination. As illustrated in Table 1, 12 out of the 25 organizations stated they had a certain kind of coordination (48%); 7 of these organizations focused on sharing resources, while 8 worked on referrals.

![Chart 5: Assessment of cooperation between organizations](chart.png)
We have several partnerships and coordination with other local organizations that are specialized in providing services to the LGBTQ community. (Respondent 14, 2021)

[Organizations] tried to organize per zone to avoid conflict / duplication. And today, if we weren’t like this, we would have faced much more serious problems. (Respondent 6, 2021)

An important point raised under the theme of coordination was that organizations preferred to coordinate with organizations with which they already had connections or previous coordinating experience.

It’s sometimes hard to coordinate, but some NGOs, where we had a history of collaboration, it was easier maybe. For others, there were good instances of getting to know new actors but not always. There’s a lot of people working on the ground, so we cannot imagine working with everybody. (Respondent 21, 2021)

And how do we coordinate as NGOs, you know? The big NGOs were more coordinated because they took zones. A full building that they were renovating. It was very clear. (Respondent 11, 2021)

We are very coordinated because we filled each other’s gaps. We were a lot like bees, busy bees working. (Respondent 11, 2021)

Volunteers also played a big role in the coordination process.

If you saw anybody on the ground, you could talk, you could coordinate. **It was also the case that volunteers knew each other.** Don’t forget, all of the volunteers were very young. So, all of them knew each other, were either friends or friends of friends or knew each other from university. So, there was a lot of WhatsApp coordination, phone call coordination... not your normal... and you know what kind of state we are in. But the initiatives were very important, even though it seemed that we were not very coordinated. (Respondent 11, 2021)

Occasionally collaboration was not successful, as clearly illustrated by Respondent 17 (2021), who stated that organizations lacked coordination. “From the beginning, there should have been more coordination. As NGOs, we should have put our emotions aside and thought rationally.”

Respondents noted that a proper response was impeded by competition between organizations: We should stop being against each other, and we

| Table 1 | Type of collaboration |
|---------|-----------------------|
| Sharing responses | Respondent 2, 14, 6, 3, 17, 15, 16, 18, 11 |
| Referrals | Respondent 1, 2, 3, 4, 6, 8, 9, 10, 17, 23, 24 |
| Communicate zones to avoid duplications | Respondent 5, 7, 15, 11 |
should start collaborating and building a nation together. (Respondent 9, 2021).

It is noteworthy that the term “collaboration” was almost totally absent in the interviews. Only one organization stated the importance of such an interorganizational relationship explicitly:

“We should keep the collaborations we already have. This advice is not only for crisis or emergencies, but for every Lebanese.” (Respondent 9, 2021)

**Category two: The role of the state**

As illustrated in Chart 6, out of the 25 organizations, 16 chose to collaborate with the government, mainly because they were obligated. The remaining organizations preferred not to due to a lack of trust.

“You’re working within a country, so you always have to be collaborating with the country power, whether we approve the government or not.” (Respondent 7, 2021)

**Absent Disaster Management Plan**

One of the reasons organizations were reluctant to collaborate with the government was the lack of a clear disaster management plan. However, organizations highlighted the importance of including the state as the hand of the government. “Responding to disaster should be the state’s role” (Respondent 10, 2021). Interviewees stressed that

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**Chart 6** Disaster response in developing contexts
the government was “not prepared to face disasters” (Respondent 5, 2021) and lacked a clear disaster management plan (Respondent 11, 2021; Respondent 4, 2021). Although some policies did exist, the government did not have the know-how to implement them, as stated by Respondent 14 (2021):

“In Lebanon, we do have policies, but as a citizen, I don’t know how adequately they’ve been implemented or executed. The state is not prepared to face disaster. There is nothing functional about the state.” (Respondent 23, 2021)

Lack of Clear Response

Another theme was the lack of a clear response from the government. Organizations stressed that the government was totally absent or chaotic: “The involvement of the state was almost nonexistent and disorganized” (Respondent 12, 2021). Absence of response was also stressed by many other respondents: “The government wasn’t able to provide basic things” (Respondent 24, 2021); “there was a lack in terms of rapidity of relief and organization” (Respondent 4, 2021); “They intervened very late, after the relief work was almost done” (Respondent 22, 2021); “they had nothing to do with humanitarian work” (Respondent 12, 2021); “no follow-up, no monitoring, no delegation” (Respondent 13, 2021).

Lack of Trust

A third theme raised in this category was trust of the government. Organizations emphasized the need for trust with the government for efficient response. “If we had a trusted government […] we would have worked together in a more efficient way” (Respondent 11, 2021). Moreover, organizations stressed that the presence of a trustworthy state would be the main basis for interorganizational collaboration, either in planning for response or in providing data.

If we had a state, of course, we could have had planning, and organization would have been shared. If the state was trustworthy, of course, NGOs would have collaborated with it. Organizations would be divided between areas, the distribution of needs would be more efficient, all of the data would have been more accurate. (Respondent 13, 2021)

NGOs doubted and had trouble trusting the Lebanese Army because they are linked to the state; they don’t trust the Lebanese army. So no, the state was not competent to do this because they didn’t show at any time that they were trustworthy. (Respondent 13, 2021)

Lack of Involvement

A fourth point that was raised in this category was the lack of involvement of the state.

In the relief effort, the state should have provided tools for removing debris, helped people directly, and urged governmental employees to make repairs at
street-level; instead, children went to the streets where they were exposed to toxic materials. (Respondent 22, 2021)

Lack of Leadership

A fifth point was the lack of leadership on the part of the government. “There was just no coordination. There was no leadership. Not at any point” (Respondent 1, 2021).

“besides, we would not have been collaborating with the government because of the lack of government leadership. I mean, the entire relief initiative and disaster response was basically single-handedly carried out by NGOs, both local and international NGOs. So, we had to kind of step up and fill in where the government wasn’t involved.” (Respondent 1, 2021).

Role of Local Government

The last theme was the role played by local government, or, in this case, the municipality of Beirut. After the Beirut explosion, the municipality was totally absent; organizations did the work of the municipality. Respondent 12 (2021) argued, “We were solving problems that they were supposed to be solving and addressing the things that they were supposed to address.”

Respondent 22 (2021) was explicit: “They didn’t do anything; they should have worked on removing debris, recycling it instead of throwing it away.”

On the contrary, the municipality hindered the work of the organizations, as Respondent 3 (2021) argued: “The municipality, through the policies it adopted, hindered the work of associations.” “The second day [after the blast], the municipality of Beirut adopted a policy that initiatives were not allowed to work without a pass.”

Moreover, the municipality lacked any preparedness policy. “We asked the municipality for a map, and the newest map they could provide us with was from 1976” (Respondent 12, 2021). Respondent 18 (2021) stated that it was organizations who assisted the municipality: “We helped Beirut municipality by providing 10 Bobcats and 10 pick-ups” (Respondent 18, 2021).

Part Five: Analysis

This study reveals that the Lebanese government was not prepared for disaster and totally withdrew when the latest disaster took place. This lack of preparedness is due to the government’s reliance on civil society to step in when disaster strikes. Governmental interference was only for control purposes rather than assisting people on the ground. While it should have cooperated with organizations on the ground, the government did the opposite: through the policies it adopted, it jeopardized the response on the ground. The literature argues that governments should cooperate with organizations. In Lebanon, this was not
the case: interorganizational relationships are absent in Lebanon which has led improper response.

Associations have adapted to working on the ground and shifted their missions to respond to disasters; however, this had led to a lack of professional response and uncoordinated duplication of work. While associations have learned from their mistakes and tried to cooperate with each other, coordination has been largely unsuccessful with the absence of two major players: the local government and the central government. All associations stressed the need of government presence for successful response.

The state should have a leadership role in these crises; leadership and a more organized system would have improved the health field after the explosion. (Respondent 10, 2021)

The state needs to be proactive on two levels. First, if the government wants input from the army, it is their choice, but the public needs to be prepared in advance. Second, NGOs, the CSO sector, need to be more constant, alert with coordination and referrals, and need to be drilled and engaged. (Respondent 21, 2021)

In developing countries, governments clearly have neither the financial infrastructure nor the know-how to respond adequately to disaster (Leeson & Sobel, 2008). As a result, they rely on non-governmental organizations (Escaleras & Register, 2016). NGOs with funding and human resources in place are willing to fill the role of the state but are also failing due to lack of coordination, know-how, and governmental support. Given this, a participatory approach to disaster should be adopted; the government should be providing full support and coordinating the work on the ground while associations should work more on collaboration and coordination of ground-level efforts. In tandem, a proper response to disaster can be better assured.

The importance of this study is that in developing contexts, the state does not have the proper funding nor the human resources to properly respond to disasters. Therefore, there is a need for the creation of a participatory approach for disaster management as illustrated in the conceptual framework below (Chart 6):

In developing contexts and in the presence of a weak state incapable of directly responding to disasters, disaster management should be divided into three phases:

**Phase One: Disaster Preparedness Phase**

First, as clearly stated by Respondent 20 (2021), “The most important thing is to be prepared. I think the state should do the preparation and involve civil society.” The state should strengthen disaster management policies through a participatory approach which includes all players on the ground. “At the national level, we need one counterpart. All UN agencies and all coordinating entities should coordinate at the national level with NGOs instead of having two separated units (the UN and Lebanese army) working” (Respondent 15, 2021). A platform should be presented through which NGOs document their intervention areas and the resources they can provide to the community. This would facilitate collaboration and coordination between NGOs, as stated by Respondent 16 (2021): “We need a platform for coordination to avoid duplication.” NGOs should work on constancy and prepare resources in case of disaster.
Phase Two: Disaster Response

Strong interorganizational relationships are crucial in responding to any disaster. Associations should coordinate their efforts on the ground to provide proper response. The state should fill the leadership role and be the first interveners, organizing collaboration and coordination with and between NGOs on the ground. Local governments should provide the information required for associations and facilitate disaster response. Associations should move beyond coordination to collaboration and join efforts to efficiently respond to disasters. Furthermore, small NGOs should work on making their presence known to gain the trust of the community. Trust is a major factor in the first and second phases. All players, but mainly the government, must build a culture of trust in order to facilitate proper disaster response. This should start with a transparent government dedicated to fighting corruption.

Phase Three: Post Disaster

Associations and the government should coordinate together to present lessons learned. “With coordination and the lessons learned from this disaster there could be an initiative or forum through which everything could be organized” (Respondent 4, 2021).

Conclusion

Strong interorganizational relationships are crucial in responding to any disaster. The Beirut explosion was the perfect example of the importance of building strong relationships between different players. Disaster response and management involve responsibilities from both the government and the non-profit sector. The input of each of these entities varies from one event to another. In a weak state such as in Lebanon, the government alone cannot handle disaster response due to incapacities, a lack of willingness in some cases, or the occasionally the enormous extent of damage caused by the disaster. On the other hand, the non-profit sector alone cannot fill the gap to provide all necessary services to the community affected. Building trust between the government and non-profit sector through collaboration and coordination is necessary for effective disaster response. Effective response is found to be related to the presence of interorganizational and cross-sectoral relationships during a disaster. This study contributes to the current literature through presenting a framework for interorganizational relationship in disaster preparedness and response in a developing context (wherein the state is too weak to intervene).

These types of relationships are challenging in heterogeneous societies and corrupted states. In a corrupted state like Lebanon, response to a disaster might not be straightforward. The government’s involvement is minimal while the willingness to collaborate and create interorganizational and cross-sectoral relationships is unclear. Building trust, communication, and collaboration is however necessary to the success of interorganizational relations.
Appendix

Table 2  List of NGOs interviewed and their missions

| No. of Respondent | Mission                                                   |
|-------------------|-----------------------------------------------------------|
| 1                 | Help the disadvantaged population                         |
| 2                 | Rebuild Lebanon                                          |
| 3                 | Rebuild houses                                           |
| 4                 | Ensure equity between individuals and serve elder population |
| 5                 | Empower woman                                            |
| 6                 | Protects the mental health of children in Lebanon         |
| 7                 | Help the population                                      |
| 8                 | Ensure inclusiveness and help marginalized population     |
| 9                 | Preserve Lebanese Heritage                               |
| 10                | Ensure medication for the population                      |
| 11                | Rebuild damaged houses                                   |
| 12                | Empower marginalized population                          |
| 13                | Fight hunger and extreme poverty                          |
| 14                | Respond to the direct needs of the population             |
| 15                | Empower Lebanese communities to develop their emergency programs |
| 16                | Bring the Lebanese population together and promote a share set of values |
| 17                | Ensure the livelihood of the Syrian refugees in Lebanon   |
| 18                | Developing and helping the environment                    |
| 19                | Feed the need of the population                          |
| 20                | Support families in need in Lebanon                      |
| 21                | Ensure the social and economic integration of the marginalized population in Lebanon |
| 22                | Protect the mental health of the affected population      |
| 23                | Enhance the role of youth on the ground                   |
| 24                | Prepare NGOs to face crisis                              |
| 25                | Provide healthcare service                               |
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