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RESEARCH ARTICLE

What matters to citizens in crisis recovery? Being listened to, action, and confidence in government

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Abstract
The policy decision-making process in the aftermath of a crisis is a dynamic and iterative process involving circumstances that are emotionally convoluted rather than stable and rationally predictable. This research addresses the following question: To what extent do citizens' fears and their perceptions of governmental responsiveness affect citizens' confidence in the government's disaster management capacity? By building a structural equation model, we also analyze the dual mediating effects of collective action by citizens. We find that citizens' collective action mediates the effects of both these factors—citizen fear levels and governmental responsiveness—on citizens' confidence in the government's disaster management capacity. We test our hypotheses, using the 2014 Sewol Ferry accident case in South Korea, a striking disaster caused by human error resulting in the loss of 304 lives. This analysis offers practical lessons for governments on how best to engage citizens' voices in the policy-making process. When citizens feel listened to and empathized with by their government, they become more supportive of the government's recovery efforts. Collective action by citizens plays a critical role in channeling citizens' feelings and communicating their feelings and opinions to the government while decreasing their fear level, which, in turn, increases citizens' confidence in the government's disaster management capacity.

Keywords Governmental responsiveness · Collective action · Fear · Confidence in governmental management

Introduction

A crisis is a critical external shock that disrupts the entire social system. This disrupted social system provides a new environment for people to adjust to and live in. Existing rules and institutions do not fit this changed environment. New operating rules are required to

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stabilize and normalize the broken system (Comfort et al., 2001; Holland, 2006). Any policy-making process that aims to develop recovery policy is situated in very complex circumstances. After a crisis, people tend to react to the situation emotionally rather than rationally. When citizens perceive that the government's response fails to save human lives and protect against property losses, citizens blame the government and lose confidence in its disaster management capacity. A lack of citizen confidence in government causes people to be more anxious and uncooperative with the government's policy implementation, which delays the social system's recovery process. Thus, the government would do well listen to citizens and reflect the opinions of the citizens in recovery policy to gain their support and cooperation in implementing the policy during a recovery process.

This study seeks to examine the process for a government to gain citizen confidence in its disaster management capacity after a crisis. A primary issue in recovery policy is setting up ways to take care of victims and their families to meet their both physical and emotional needs (Bolin, 1985). This issue is emotionally sensitive for citizens because the government's approach to the victims reveals how much the government respects and takes care of its citizens. As citizens tend to identify with victims and victims' families (Malhotra & Kuo, 2009), they are emotionally and rationally moved to participate in processes intended to influence policy direction through diverse channels. They take the initiative to mobilize collective actions to affect the policy-making process, such as street demonstrations and signature-seeking campaigns.

We argue that the government of an affected group of people is required to reconsider its role and function in a policy-making process for recovery. Governmental responsiveness in the form of sympathizing with citizens' suffering and reading their desires should be considered a critical function of government after a crisis, because the government's subsequent measures are processes to remedy not only citizens' physical but also their emotional damage (Mort et al., 2005; Tapsell & Tunstall, 2008; Whittle et al., 2012). In the context of the policy-making process after a crisis, this study points to the role of governmental responsiveness in increasing citizens' confidence in the government's disaster management capacity. This study addresses the following question: *To what extent do governmental responsiveness and citizens' fear, respectively, increase or decrease citizens' confidence in the government's disaster management capacity*? We specifically look at the mediating function of citizens' collective action as it affects citizens' confidence in the government's disaster management capacity.

We address the research question by using the Sewol Ferry accident case in South Korea. In April 2014, the Sewol Ferry overturned on the way to Jeju Island, South Korea. Out of 476 passengers in total, 325 high-school students were riding the ferry for a field trip that day. When a marine police station got the first report of the accident, relevant response agencies had enough time to evacuate those passengers before the ferry went completely underwater. Due to miscommunications among relevant government agencies, the evacuation process was delayed, resulting in the deaths of 250 students and 54 other passengers. This accident shocked the entire society and enraged citizens at the incompetence of the Korean disaster management system. Fear of potential disasters prevailed throughout the society along with grief for those victims and their families. Following nationwide candlelight protests by citizens in Korea, Korean citizens residing in foreign countries also initiated street demonstrations in their communities to pressure the Korean government to reform recovery policies. The ongoing street demonstrations led by citizens caused the Korean government to listen to and reflect citizens' voices as the policy for recovering from the ferry accident evolved.

This study applies a complex adaptive system framework to identify the characteristics of a policy-making process that involves evolving interactions between government and citizens to help the society recover after a crisis. We discuss the concepts of citizens' confidence in a government's disaster management capacity, citizens' collective action, governmental responsiveness, and fear on the part of the citizens. After a review of the relations among these concepts, we specify a theoretical analysis model. Using survey data collected from a nationwide survey of Korean citizens, we employ a structural equation model (SEM) to test our analysis model. Finally, we discuss analysis results and offer policy suggestions to enhance governmental capacity in the recovery process.

The post-crisis policy-making process as a complex adaptive system

A social system consists of multilayered institutions in which diverse social actors, including citizens and the government, interact and determine their behavior within the boundaries of existing institutions as agreed-upon rules (Ostrom, 1990, 2005). These rules increase the predictability and stability of the social system. When an unexpected shock, such as a crisis of human origin, disturbs a system's environment so that the existing rules no longer work, these actors intensify their interactions to identify and institute better-adapted rules (Fligstein & McAdam, 2012). In the aftermath of a crisis, the government and citizens should collaborate to develop an appropriate recovery policy that helps the social system to rebound effectively to a new "normal." To meet this need, an adaptive approach pinpoints a critical need for flexibility in the field of crisis management. Disasters exploit the weakness of standard procedures and bureaucratic operating systems while fostering unmet needs as emergent norms (Neal & Phillips, 1995). Flexibility is defined as "an attitude of accepting the need for adjustment" (Kendra & Wachtendorf, 2007: 323). More importantly, the adaptive approach embedded in the concept of flexibility includes improvisation and creativity to develop new alternatives continuously, seeking to achieve "fundamental objectives in ways previously unseen" (Kendra & Wachtendorf, 2003: 123).

In a post-crisis period, adaptive management on the part of the government is highly necessary to establish a new normal by increasing governmental responsiveness in the policy-making process, which ultimately increases flexibility. Adaptive management is an iterative process, elaborating policies experimentally to adjust to a new normal (Dayton-Johnson, 2004; Graham & Kruger, 2002; Holling, 1978; Johnson, 1999; Smith & Lawrence, 2018; Wise, 2006). Adaptive management begins by engaging a wide range of interested stakeholders to discuss the problem and any available information; it then moves on to develop a particular policy to resolve the problem (Johnson, 1999). The government's post-crisis adaptive management should continue changing or elaborating its recovery policy as new information emerges (Alexander, 2002), thus increasing the fit of this new policy to the new normal. This mode of management differs from traditional forms of management, such as policy monopoly, which clings to incrementalism (Baumgartner et al., 2014) and existing routine procedures (Argyris, 1995; Argyris & Schön, 1997; Princen, 2013), by emphasizing the importance of iterative feedback in shaping and evaluating policy collaboratively (Graham & Kruger, 2002).

The government's adaptive management in a post-crisis period should entail an ongoing collaborative relationship with citizens to achieve common goals in social restoration (Smith & Lawrence, 2018). Key factors of adaptive management include involving a diverse set of actors, institutions, and behaviors across different levels and increasing broad participation

and collaboration in a "nested" approach to decision-making. The decision-making process should be flexible and reflexive to promote learning and shape future social structures (Djalante et al., 2011; Folke et al., 2005; Keessen et al., 2013). Citizens' collective action in a policy-making process introduces positive feedback to spread information on the issue to other venues (Princen, 2013). Citizens as political principals actively develop policy networks to mobilize collective action to appeal to the common (or shared) interests of citizens, which are more than the mere sum of individual interests (Bourgon, 2007). This positive feedback directs the policy-making process toward a new equilibrium with new policy images and goals (Kingdon, 1995; Mortensen, 2009), reducing the impact of negative feedback in the policy-making process (True et al., 2007). However, the policy-making process in the aftermath of a crisis is complicated by emotional instability among citizens, such as fear about future crises and lack of confidence in the government. These complex emotional factors often introduce additional ambiguity and complexity into the policy-making process (Anderson, 2013), resisting a well-structured approach to identifying problems and finding solutions.

Governmental responsiveness to citizens' collective action plays a crucial role in facilitating positive feedback in the policy-making process. What citizens want most in a policy-making process is to be listened to and recognized by the government; this is of greater value to them than specific policy outcomes (King & Stivers, 1998; Tyler, 1990). Increasing governmental responsiveness by listening to citizens' voices actively causes policy-makers to enter into an understanding about the emergent aspects of a situation beyond their current knowledge and perceptions. A deep engagement between policy-makers and citizens results in reciprocal dynamics and a higher expressive potential of dialogue (Stivers, 1994). Thus, the government's ability to understand and communicate with citizens determines citizens' active participation in contributing productive input, rather than emotional provocation, to the making of a new policy. This positive feedback allows government and citizens cooperatively to narrow the perception gaps about public interests and values to the point of being able to project the future system that the recovery policy aims to create. In this way, the new policy for implementing the social system's recovery can successfully articulate and realize the public interest (Kingdon, 1995; Mortensen, 2009).

Governmental responsiveness to collective action by citizens also has a symbolic impact that increases citizen confidence in the government, because citizen response to a policy process considers not only "who gets what" but also "when and how" (Lasswell, 2018). Successful recovery from a crisis relies on citizen confidence in the government to implement new societal rules that will introduce a new equilibrium into the social system. Citizens' evaluations of the government are entirely subjective. When citizens recognize that their voices are reflected in policy, they tend to evaluate the government's capacity more positively regardless of its actual capacity as assessed by neutral or technical criteria (Kweit & Kweit, 2004). Furthermore, the collective action of citizens often alters the substance of policy to be more acceptable to them, which in turn increases their confidence in the government to implement the policy properly (Berke & Beatley, 1997; Berke et al., 1993). This iterative course of interactions between the government and citizens in the development and revision of recovery policy ultimately helps the government restore and increase citizens' confidence in government (Fig. 1).

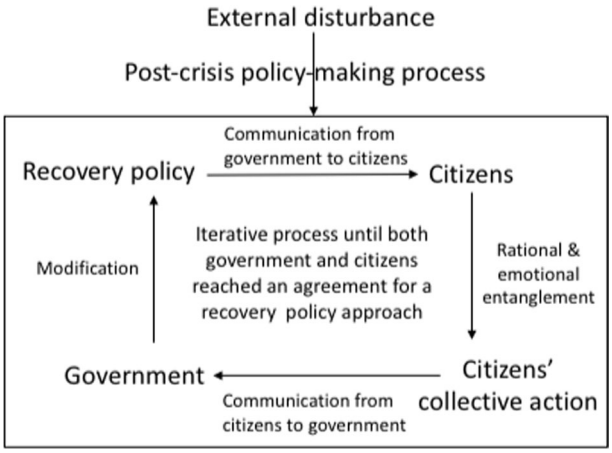

Fig. 1 Iterative policy-making process as a complex adaptive system

Recovery process following the Sewol Ferry accident

The policy-making process to deal with the Sewol Ferry accident in 2014 proceeded over three years that overlapped both President Park's (2013–2017) and President Moon's administrations (2017–2022). During this period, citizens' collective action served as an engine to drive dynamics in the policy-making process. The range of participating citizens rapidly expanded from expertise groups to citizens in general, diversifying the formats of collective actions over time. Citizens ultimately assumed a strong leadership role in raising collective voices to appeal to the government.

For over a month after the ferry accident, the government task force team set up by President Park's administration delayed setting up a national investigation plan for the accident. The victims' families asked the government to set specific timelines and appoint investigators to reveal the truth about the facts of the accident. Meanwhile, the government tried to finalize the recovery process as quickly as possible by compensating victims' families for the damage. Three rounds of negotiation between the government and victims' families failed to narrow the differences in their positions. Over 800 non-governmental organizations initiated signature-seeking campaigns to pressure the government to advance the investigation process (Lee, 2014).

In May 2014, the Lawyers Alliance for Democracy, a nonprofit organization of lawyers devoted to creating a democratic society, volunteered to support the victims' families by acting as a mouthpiece to negotiate with the government on their behalf. These volunteer lawyers established a truth commission to defend and protect the rights of the victims' families through a legal process. The truth commission and victims' families obtained support from the opposition political party, facilitating policy change by creating positive feedback. As the government failed to respond to the victims' families' petitions, collective action by citizens was amplified worldwide to increase the pressure on the government to listen. Koreans residing in the USA also mobilized candlelight protests in their own cities (Kwon, 2014). Approximately 1,600 Koreans residing in 27 countries participated in crowdfunding campaigns that collected a total of $65,820 (Park, 2014) to publish relevant information about the Sewol Ferry accident on the cover page of the New York Times (KyungHyang, 2014) and in an electronic display in Manhattan, NYC (AsianEconomy, 2014), to push the

Korean government to enact the Sewol Ferry Special Act. As a result of continual collective action by citizens over five months, the Park administration advanced the Sewol Ferry Special Act at the end of September 2014.

The citizens' collective action gained enough strength to push the government to implement the Sewol Ferry Special Act in 2015. Over 50,000 citizens joined one-year remembrance events, pressuring the government to carry out the plan to salvage the sunken ferry. The government finally responded to the citizens' persistent collective actions by hiring a specialized salvaging company and planning a feasible salvaging process (Min, 2015). Citizens' collective actions further extended to cause the enactment of other relevant regulations. For example, two teachers who died in the accident did not qualify for public compensation from the government as persons who died in the line of duty because they worked as temporary instructors. Teacher groups mobilized a collective action to acknowledge those teachers' deaths (Chang, 2015).

In 2016, street demonstrations by citizens evolved into an impeachment demonstration directed at President Park in response to revelations that a lifelong friend of hers had accrued illegal gains by intervening in state affairs. The investigating team found that the president's friend had been deeply involved in her decision concerning how to operate the first rescue phase in response to the Sewol Ferry accident. Citizens mobilized a new wave of street demonstrations to investigate her. By December 3, 2016, the public outcry had culminated in a deafening roar of over a million protestors that the South Korean National Assembly could no longer ignore. A bill was finally enacted to impeach President Park (Steger, 2016). About 1.9 million Korean citizens in 67 cities in 23 countries, including the USA, Italy, France, and India, also mobilized street demonstrations (Park, 2016). A headline read, "Park impeachment: Bittersweet victory for families of Sewol ferry victims" (Griffiths & Han, 2017).

In May 2017, Moon Jae-in was selected as the new president with a support base of 41.08%. From the day of the ferry accident forward, President Moon as a leader of the opposition political party had steadily supported the Lawyers Alliance for Democracy by listening to and promoting their legal procedures to investigate the accident. On the day of his election, his first step was to meet with the victims, their families, and citizens who attended a candlelight protest in Kwang-Hwa Moon, the central location for candlelight protests in Seoul (Hong, 2017). His visit was a gesture symbolic of his administration's commitment to creating two-way open conversations to listen to citizens' needs and arrive at a shared vision.

Citizens' confidence in the government's disaster management capacity

Citizens' confidence in the government's disaster management capability, which amounts to citizens' assessment of how well the government carries out the phases of disaster management, depends on the past behavior of the authority (Terpstra, 2011). Citizens' confidence comes from governance legitimacy which indicates whether governmental decisions are desirable and appropriate within certain socially constructed systems of norms, values, and beliefs (Jann, 2016; Suchman, 1995). A high level of citizen confidence in a government is strongly associated with a high level of governance legitimacy (Christensen et al., 2016). Citizens' evaluations of the government's capacity are more crucial in times of crisis because public support for the government strengthens its leadership and legitimacy, enabling it to cope with problems more effectively and efficiently (Hetherington, 1998). In

contrast, continually declining citizen confidence in government might cause "a cumulative downward spiral" (Nye et al., 1997: 4).

In contrast to natural disasters, disasters of human origin are caused by specific agents. Citizens strongly desire to investigate fundamental causal factors and the agents responsible through a transparent process to prevent the government from repeating the same errors. Attributions of disasters of human origin during states of crisis are of particular importance because these attributions become shared memories for the entire nation and are used for a long time thereafter as concrete examples of the consequences of mistaken policy decisions (Oz & Bisgin, 2016). When citizens share the opinion that the government has caused or mishandled a crisis, governance legitimacy is heavily damaged, which, in turn, results in loss of citizen confidence in the government's disaster management capacity (Rothstein, 1998). Restoring public confidence in the government's capacity during a crisis recovery process plays a critical role in building a new social system by attracting citizen support and collaboration for a new policy.

Confidence in the government includes emotional and affective conditions as well as rational judgment of the government's performance (Gross et al., 2009). Citizens' assessment of a government's capacity includes not only its capacity to satisfy citizens' expectations but also its responsiveness, its participatory nature, and the fairness and openness of its administrative processes. To understand crisis management performance, it is highly necessary to see not only the recovery policy output but also how governmental responsiveness and reactions to citizens' voices are assessed by citizens. The more the government authorities gain citizen confidence, the better they can perform their roles and duties with the help of citizen support (Rothstein, 1998). Thus, promoting citizen confidence in a government's disaster management capacity in the aftermath of a crisis should be treated as a continual process of interaction between the government and citizens.

The primary goal of the recovery process is not to bounce back to a previous state but to support victims and their families in adjusting to a changed reality shaped by new physical, social, and psychological conditions resulting from the disaster. For disasters of human origin that cause a considerable loss of life, like the Sewol Ferry accident, the recovery process should prioritize psychological restoration for victims and their families. This process may take much longer than physical reconstruction, depending on how well the government understands and meets victims' needs. Remarkably, the government response to the Sewol Ferry accident revealed a considerable shortage of capacity in the passivity of its rescue activities, the miscommunications among response agencies, and the leadership vacuum that became evident. In the aftermath of the crisis, the Korean government needed to enhance its citizens' confidence in its disaster management capacity in order to stabilize and continue services with citizen support over a long period of time.

Citizens' collective action

Collective action can be defined as the action of a group doing something together in pursuit of a common goal to promote the commonweal (Marwell & Oliver, 2007; Oliver, 1993; Ostrom, 2003). Hardin's (1968) tragedy and Olson's (1965) problem of collective action point to the difficulty with expecting people to organize themselves in a voluntary association to ensure their common interest (Ostrom & Ostrom, 1971). Unlike traditional collective action which was constructed through a shared membership in a certain group, contemporary collective action is constructed through personal interactions, which have a

greater degree of autonomy and influence on the direction of the collective action (Selander & Jarvenpaa, 2016). Advanced communication technology has contributed to promoting personal interactions in the short term among individuals who have loose affiliations across the scope of issues. This new format of citizen collective action is readily found in diverse contexts associated with post-crisis policy-making processes (Bennett & Segerberg, 2011; Kriesi, 2015; Seo, 2019). The highly distinctive features of contemporary collective action, such as maintaining agenda focus and strong coalition relationships, are what give it the capacity to undermine conventional political strength (Bennett, 2003). Such a collective action process driven by citizens serves as a feedback loop in the policy-making process that results in continually redefining problems and searching for alternative or better solutions (Van Tatenhove & Leroy, 2003).

In a post-crisis policy-making process, collective action by citizens does not simply aim to identify a problem and contested interests and decide whom to blame and what to do. Rooted in collective grief and dissatisfaction, citizens' collective action rises up with a strong intention and goal of fostering or restraining broad legal and social changes. This action occurs primarily outside the regular political institutions set by existing authorities (Jasper, 2014). Citizens' intentions and desires for social changes are often rooted in their shared grievances, and they express such desires through collective action (Hirschman, 1970), especially in the absence of available options in the institutionalized arenas (Prakash & Gugerty, 2010). A crisis provides a window of opportunity for people to engage actively in "informal polity, which underlies and gives vitality to the formal institutions of the social process" (Nieburg, 1969: 196), an example being the candlelight protests after the Sewol ferry accident in Korea. When citizens express and share their emotions and feelings with others in a collective action network, there emerges a new collective identity as they continuously reinterpret their sociocultural environments and redefine the nature of the problems (Juris, 2004; Papacharissi, 2011) to reconstruct the "new reality" (Benford & Snow, 2000). Thus, citizens' collective action plays a role of transformative agency to bring about a positive change in society. Its transformative agency lies in its constructive and transformative power to realize the democratic values of autonomy, solidarity, and equality (Honig, 2009).

In the long term, a collective action process ultimately strengthens social capital as participating citizens bond strongly and gain a sense of control by influencing the post-crisis policy-making process. The process allows participating citizens to share ownership of the social issue (Mooney et al., 2011). Such participation may also offer opportunities to enhance social cohesion and trust, which constitute a significant resilience factor (Bonanno et al., 2010). As collective action plays a crucial role in building a supportive culture that engages diverse citizen groups in the policy decision-making process (Shinn & Toohey, 2003), it has settled in Korea into a collective ritual symbolizing both collective action and the participants themselves (Jasper, 2014). Korean citizens have constructed "collective identities" as a whole, rather than as individual citizens, through collective action—candlelight protests—and have established collective empowerment to influence the policy-making process to strengthen the entire society as a new order takes hold (Chae, Cho, & Cho, 2020). Korean collective action has served as a crucial venue for citizen engagement in the policy-making process to resolve social crises through a collective voice (Hwang & Willis, 2020).

Practically, this action increases the likelihood that recovery policy will meet victims' needs (Mooney et al., 2011). A proactive, collective citizen voice enhances public input and supports policy decisions (Bulkeley & Mol, 2003; Burgess et al., 1998; Grimble & Wellard, 1997). Collective action by citizens conveys information and support to

decision-makers. Through immediate response from citizens about a newly suggested policy, administrators can gain knowledge that supports the policy process, learn which policies are likely to be explosively unpopular, and thereby avoid policy failures (Irvin & Stansbury, 2004). Interactions between policy-makers and citizens also inform the public about the intent and context of individual policies and enhance buy-in to policy decisions. Collective action provides governments with learning opportunities that allow them to be more relevant and responsive to citizens. If successful, such learning can reduce adversarial dynamics and widen the sense of collective responsibility. In this way, the Korean government gains legitimacy from people who are diverse and hold contradictory perspectives and interests (Kim, 2016). A new policy approach achieved through iterative interactions between citizens and policy-makers is more likely to satisfy citizens' needs, increasing citizens' confidence in government capacity.

Hypothesis 1 Citizens' collective action increases citizens' confidence in the government's disaster management capacity.

Governmental responsiveness

Governmental responsiveness is an important value for creating an adaptable policy-making process in response to what citizens want or expect (Dahl, 1971). An emphasis on governmental responsiveness means including and involving citizens' opinions in the formation and implementation of policies (Powell, 2004). In a crisis featuring a high degree of uncertainty about the nature and extent of the threat to material or immaterial values, citizens expect the government to intervene and resolve the crisis immediately (Boin, Stern, & Sundelius, 2016; Degner, 2019). Meanwhile, how responsive the government is in response to citizens' voices in a policy-making process is also important in crises because citizens tend to confer more legitimacy on the government and its policy when they perceive the government's active response to the citizens' voices to develop a new policy (Christensen et al., 2016). Even though responsiveness to citizens' opinions does not necessarily cause policy, policy-makers are required to be attentive to public opinion in a policy-making process (Wlezien, 2017). Many studies investigate what kinds of efforts a government makes to increase its responsiveness to citizens' voices in diverse crisis contexts. Degner and Leuffen (2020) focus on the role of governmental responsiveness in forming national preferences regarding EU policy changes in crisis times. During epidemic crises, governmental responsiveness to public opinion plays a crucial role in mitigating further disease spread by gaining citizens' collaboration (Liao et al., 2020). In crises caused by governmental mismanagement, such as nuclear accidents, the government's responsiveness to citizens' voices is even more critical (Morales et al., 2014).

A major question relevant to increasing governmental responsiveness is how to know what citizens want. As Bellah et al., (1992: 254) argue, "democracy is paying attention"—responsiveness begins with listening (Powell, 2004). In the time following a crisis of human origin, governmental responsiveness should be particularly emphasized. Disasters of human origin evoke intense emotional arousal among the public on behalf of victims who have lost life and property for no reason (Oz & Bisgin, 2016). Empathic and caring communication on the part of the government to address public emotional distress is highly necessary to restore society effectively by meeting the changed needs of citizens (Reynolds & Quinn, 2008; Liao et al., 2020; Liu, Xub, & Tsai, 2020). Particularly in a society like

Korea, where people have high levels of interdependency, mutual bonding, and interpersonal attachment (Kitayama, Duffy, & Uchida, 2007; Markus & Kitayama, 1991), citizens experience stronger personal distress after a disaster in response to victims' and their families' sufferings (Cassels et al., 2010; Kitayama et al., 2000, 2007). This strong emotional interdependency among citizens increases people's attention to and participation in a post-crisis policy-making process as they raise their voices for the sake of victims and outcomes through which citizens can perceive how the government takes care not only of individual victims but also of the citizenry as a whole.

In the aftermath of a disaster, the government's responsiveness to citizens is critical to building or restoring positive relationships with them (Broom et al., 1997). A responsive government has the ability to listen and respond to citizens by actively exercising its embodied abilities, ways of knowing, and moral capacities. Such a responsive government also engages the emotional aspects of the situation by being, for instance, "reactive, sympathetic, sensitive, and capable of feeling or suffering" (Stivers, 1994: 365). Being reactive requires openness. Such openness allows the government to take the viewpoints of citizens and recognize the fundamental complexity and unpredictability of the situation. A government's capacity for sympathy allows it to sense how citizens feel and to accept their feelings as they are. The government's understanding of citizens' feelings and desires should be connected to developing a reflexive relationship through effective communication with citizens. Emotions are contagious in their influence, traveling from one person to another instantaneously. A responsive government ideally communicates with citizens in such a way as to create positive and supportive feelings and deliver a message of confidence and self-respect by creating continual dialogue. Such capacities help the government engage with its citizens in a reflexive relationship that embraces both theory and a practical policy-making process (Forester, 1982). This ultimately increases the government's adaptability to the new normal through collaboration with its citizens.

The policy-making process as an iterative process evolves the environment and the relations between government and citizens over time. Notably, a government's responsiveness—its ability to listen to public opinion and react appropriately—affects the emergence, strategies, and forms of collective action by citizens. This collective action as a feedback channel in response to the government's decision can direct policy outcomes (Baker & Chapin, 2018). The families of Sewol Ferry accident victims requested that the government continue a search for the missing bodies and investigate the accident. In contrast, the Korean government strove to wrap up the situation quickly by negotiating material compensation to victims' families while avoiding the concrete actions that would have responded to the families' requests. Citizens' continuous demonstrations throughout the year following the accident pushed the government to change its stance and reactivate efforts to find the missing bodies. Former President Park first officially announced the government plan for a ferry salvage a full year after the accident (Yonhap, 2015). As citizens perceived the government to be actively listening to their voices, they became more empowered to raise their collective voice, and they increased their collective actions.

Hypothesis 2 Governmental responsiveness increases collective action by its citizens.

To increase citizens' confidence in a government after a crisis, the government should recognize and reduce perceived gaps between the government's actions and citizens' expectations (Christensen et al., 2016; Schneider, 2011). The size of the perceived gap between the government's response to a crisis and the citizens' expectations determines citizens'

evaluation of governmental legitimacy and crisis management performance. Citizens' subjective evaluation of the government's crisis management performance is very much subject to their feelings on how responsive the government is to their expectations. Indeed, the relation between citizens' confidence in government and their emotions gains recognition during a crisis when people are emotionally responsive in a collective way (Gross et al., 2009). The quality of the government's responsiveness to its citizens is positively associated with the citizens' behavioral intentions to support the government (Banning & Schoen, 2007; Bruning et al., 2008). When government officers express their concern for the public and prioritize the needs of the public over their own desires and wants, citizens perceive the government as more trustworthy (Peters et al., 1997; Wray et al., 2006). Thus, the government's capacity to listen to its citizens and recognize and respond to their emotions appropriately is essential to increasing their confidence in the government. Three months after the ferry accident, the Park administration announced that it would stop recovering missing bodies. According to a Korean nationwide survey during this period, 66% of citizens had very low confidence in the Park administration's capacity for dealing with the ferry accident recovery process. These citizens pointed to the government's lack of communication and failure to listen to citizens as a primary reason for their lack of confidence in the government's capacity (Gallup, 2014). Immediately after the next presidential inauguration, the incoming President Moon showed a strong willingness to listen to citizens for direction in dealing with the ferry accident. For the first hundred days, the Moon administration actively investigated the ferry accident by creating a special investigation team and searched for missing bodies in the salvaged ferry. As of a hundred days into the Moon administration, citizen confidence in the government had reached 78%. Out of these citizens, the biggest proportion of people (19%) said the government was sensitive and responsive to citizens' voices and capable of taking care of citizens' needs (Gallup, 2017).

Hypothesis 3 A government's responsiveness increases its citizens' confidence in its disaster management capacity.

Citizens' fear

The anticipation of disasters evokes intense fear because people judge "risk as feeling" (Loewenstein et al., 2001). Fear serves as an affective determinant of perceived risk (Lerner & Keltner, 2001). Fear is aroused when people are uncertain about managing events or when events seem uncontrollable (Frijda, 1987). Concrete memories of particular situations cause an automatic emotional reaction at an individual level. Because people store these memories with emotions based on perceptual impressions, their reaction when encountering the same or a similar situation is instantaneous and intuitive. Fear is contagious when people within a group share their feelings through relevant stories, facts, or memories of antecedents that aroused fear. By referring to such things in their communication, individuals cause their fearful emotions to influence other people, and all these people then find symbolic cultural meanings that they attach to their shared emotions within a sociocultural context (Jasper, 2014; Lerner & Keltner, 2001). In turn, this socially constructed and shared fear influences others who come to share the same thoughts, feelings, and actions even though they did not have direct experience of the same events.

Through a social process, fear becomes a part of all social life, conveying cognitive meanings and moral values. Collectively shared fear is relatively predictable, not a mere

accidental eruption of the irrational (Jasper, 2014). Public discussion of the possibilities for disaster may arouse people's ability to imagine a future disaster (Bartholomew & Victor, 2004; Gross et al., 2009), which causes people to overestimate the impact of possible disasters on their well-being (Lerner & Keltner, 2001). While the Sewol Ferry was sinking into the water, Korean citizens witnessed and heard the scenes of helplessness in real time via the media. The image of the sinking ferry incurred extra emotive resonance because a substantial number of the lives lost were those of high-school students on their last field trip before embarking on the hardship of preparing for competitive college entrance exams. The media kept transmitting heartbreaking stories of the students' last minutes found in text messages and phone conversations with their families. As citizens shared these tragic moments, the entire society fell into deep agony and heightened fear of future disasters (Borowiec, 2019). A Korean longitudinal survey data showed that citizens' risk perception increased dramatically after the ferry accident, from 50.79 to 56.22 out of a total possible score of 100 (Cho & Jung, 2019).

Fear is not only an emotional response to events but also, as a form of deep affective attachment toward the events, a shaper of the goals of citizens' actions. Fear plays a prominent role in mobilizing collective action as it shifts to outrage in search of someone to blame, because citizens' collective action is often aimed at an object of dislike (Jasper, 2014). Incipient fear must be converted into moral indignation and outrage toward concrete policies and decision-makers (Gamson, 1992; Gamson et al., 1982). This emotional conversion process is expressed through citizens' collective action. Furthermore, fear has been suggested as a significant predictor of information-seeking related to coping behavior. Theoretically, fear plays a role in inducing adaptive responses by motivating individuals to seek information. By sharing information, they act collectively to protect themselves or remove the threats (Chon & Park, 2019). In this process of communication among citizens, since society is an emotionally connected network, fear is contagious and amplified (Garot, 2004), driving collective action. After the Sewol Ferry accident, fear spread through communication processes among citizens who shared social norms and cultural expectations. Collectively shared fear mobilizes and strengthens collective action. It solidifies shared symbolic meanings and transmits those meanings to others who had not previously fully consented to those meanings without their full consent (Bartholomew & Victor, 2004).

Hypothesis 4 Citizens' fear increases citizens' collective action.

Psychological and emotional tension caused by a disaster escalates the collective stress of the whole community and society. Fears of other disasters and worries about impending crises are ignited. Such a changed atmosphere, together with the loss of human and material resources caused by the disaster, can create long-term stress in the society (Bland et al., 1996). Increasing fear shared among citizens can develop into a negative judgment toward the government as citizens experience emotional reactions and rely on their feelings as key information informing their perception and assessment of governmental capacity and function (Rahn, 2000; Schwarz, 1990). "Affective information can substitute for more cognitively expensive forms of information and can aid people in their attempts to form political opinions" (Rahn, 2000: 130). Citizens' evaluation of government capacity is tied to their thoughts and feelings (Gross et al., 2009) because differences in emotional states lead to different types of thinking processes (Visvardi, 2015). Indeed, such connections between emotion and confidence may be particularly evident when a crisis is caused by the government's misdealing and faults, an eventuality that elicits strong emotional responses from a large

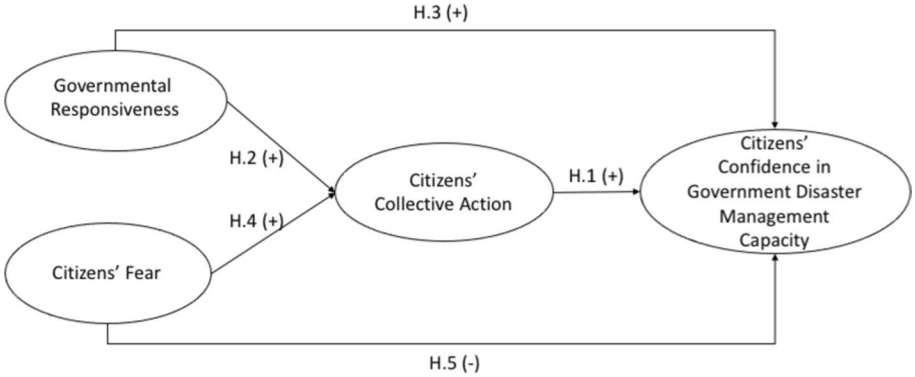

Fig. 2 Suggested analysis model

proportion of the public. Fear in society is seen as relevant to judgments about the government, which is responsible for rescuing victims. In the case of the Fukushima Daiichi disaster, citizens' fears about further potential disasters and their low confidence in the government's capacity for effective management were interrelated during the long-term recovery process (Miller, 2016). During the Sewol accident recovery process, 43% of citizens greatly feared a potential future crisis and worried about Korean society and security after the ferry accident, according to a nationwide survey conducted by the Korean government's Ministry of Public Safety and Security (YTN, 2014). When people fear the possibility of being personally involved in a similar disaster situation, this emotion signals that the government has not handled a crisis appropriately and needs to improve its capacity. Thus, fear decreases confidence in the government's disaster management capacity (Loewenstein et al., 2001).

Hypothesis 5 Citizens' fear decreases their confidence in the government's disaster management capacity.

Figure 2 presents the proposed analytical model consisting of five hypotheses.

Research design

Data collection

Research tools were designed and developed by modifying existing tools with contextual information relevant to a disaster management system. For empirical verification using survey tools, a national survey was conducted through a specialized nationwide survey organization, Macromill Embrain (https://www.panel.co.kr/user/main). We conducted surveys between May 22, 2017, and May 26, 2017, in the entire region in South Korea. The entire region of South Korea follows six regional jurisdictions: (1) the metropolitan city of Seoul; (2) Gyeonggi, Gangwon, and Incheon; (3) the Chungcheong area (Chungbuk, Chungnam, and Daejeon); (4) the Honam Area (Jeonbuk, Jeonnam, Gwangju, and Jeju); (5) the Gyeongbuk Area (Gyeongbuk and Daegu); and (6) the Gyeongnam Area (Gyeongnam, Busan, and Ulsan). The survey randomly sampled Korean citizens who were living in Korea throughout the period of the Sewol Ferry accident and its recovery process—that

is, between 2014 and 2017. The number of surveys distributed to each region reflected the region's proportion of the Korean population. The gender and age ratios in the survey distribution also reflected the distributions of gender and age in the relevant areas. These precautions minimized concerns about the representation of the Korean people in our survey sample. We collected 1,128 surveys: 114 from jurisdiction 1, 181 from jurisdiction 2, 57 from jurisdiction 3, 63 from jurisdiction 4, 57 from jurisdiction 5, and 90 from jurisdiction 6. Of these surveys, our screening found 559 to be valid and reflective of the regional distributions of the Korean population.[1]

Measurements

Governmental responsiveness can be measured by citizens' own assessments of the governmental democratic process, asking citizens whether they thought that policy-makers were pursuing policies that enjoyed majority support (Powell, 2004). To assess governmental responsiveness, we developed measurements focusing on governmental capacity for sympathetic communication (Chon & Park, 2019), interpersonal communication (Ledingham & Bruning, 1998), and emotional responsiveness (Sharma et al., 2014) in public and organizational relationships. The respondents were asked about governmental responsiveness from four perspectives: the government's capacity to monitor citizens' emotional states accurately; its capacity to listen to and accept citizens' opinions; its capacity to develop a positive relationship through its communications; and its responsive ability to behave cautiously, adapting to the citizens' mood. All items were measured using a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The participation of citizens in collective action emphasizes their intent to exert influence on a policy-making process (Hetherington, 1998, 2005; Richardson, 1983). Throughout the policy-making process addressing the Sewol Ferry accident, Korean citizens participated in that policy-making process in diverse ways to appeal to the government through their collective voice as citizens. We referred to existing measurements (Sigelman & Feldman, 1983; Krueger, 2002; Ha, 2006; Kim & Park, 2011) reflecting citizens' participation in protests or movements for the sake of political issues. We modified existing measurements of the citizens' collective action by including additional major forms of collective action in the Korean context: persuading and gathering people to mobilize for collective action, participating in signature campaigns, and attending street demonstrations/rallies. All items were measured using a five-point Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Fear is usually measured as a personal mood, using relevant adjectives. We used measurements (Cronbach's alpha = 0.90) developed by Weinstein et al. (2000). We asked about four different moods: nervous, frightened, scared, and uneasy. Confidence in governmental disaster management capacity measures citizens' belief in the government's coping capacity. Existing research usually measures citizens' confidence in the government with a single question asking them to report their confidence level on a scale of 1 to 5 (or 7) (Basolo et al., 2009; Gross et al., 2009; Terpstra, 2011). Alternatively, this has been measured by eliciting citizens' beliefs about the disaster management skills required for the mitigation, preparedness, response, and recovery stages (Shin & Park, 2013). Our research focuses on

[1] The distribution of survey collections and the final survey data we used for the analysis well reflect the regional distribution of Korean population (Namuwiki, 2021).

governmental capacity to deal with a disaster through a policy-making process. We clarified four specific items by which citizens can assess the government's capacity to respond to a disaster situation via a policy-making process: ability to design a disaster management policy embracing citizens' needs, ability to develop an effective policy, ability to implement a policy, and ability to cope with disasters.

Data analysis and results

Descriptive analysis

Table 1 reports the variables used in the study and their descriptive statistics. We present the mean and standard deviation for each survey question, grouping the questions by construct.

Using a structural equation model (SEM), our study assesses the correspondence between the theoretical model and the data. An SEM model analyzes the relationships between latent exogenous and latent endogenous variables as well as the relationships among latent endogenous variables. In this study, our SEM model has four latent constructs: governmental responsiveness, citizens' fear, citizens' collective action, and citizens' confidence in the government's disaster management capacity. This structural model is generally preferred to a formative model for assessing direct and indirect relationships among latent variables that have not been validated by previous research.

After we tested the construct validity of each variable, we tested the analysis model with AMOS software. Our analysis model satisfies the goodness of fit indices shown in Table 2. In addition to the chi-square test, we used the goodness of fit index (GFI), the root mean square error of approximation (RMSEA), the incremental fit index (IFI), the Tucker–Lewis index (TLI), the comparative fit index (CFI), and the normed fit index (NFI) to assess the fit of the model to the data (Joreskog & Sorbom, 1993). We reviewed the standardized residual covariances to see whether their distribution was normal (Fig. 3).

Direct effects

Our analysis shows that governmental responsiveness significantly increased citizens' confidence in governmental disaster management capacity (CGDMC) ($\beta = 0.628$, $p < 0.001$). As we argued, citizens perceived that the government would work well when they perceived that their voice was listened to and conveyed to the government. With the greatest impact on CGDMC, governmental responsiveness should be considered vital in successful societal restoration. In contrast, we observed that when fear about a disaster increased, CGDMC decreased ($\beta = -0.070$, $p < 0.01$). Compared to the mean value of governmental responsiveness (2.34) and CGDMC (2.30), the mean value of citizen fear was much higher (3.96) even three years after the ferry accident. The fear of future disaster struck hard in Korean society. The contrast between the effects of governmental responsiveness and the effects of citizen fear on CGDMC indicates that government should play a significant role in addressing citizens' negative emotions after a crisis by listening to and empathizing with citizens' desires.

Governmental responsiveness increased citizens' collective action significantly ($\beta = 0.530$, $p < 0.001$). This result reflects the evolution of the government's and citizens'

Table 1 Descriptive analysis

Constructs and variables	No. of samples	Mean	Std. Dev
Governmental responsiveness			
1. The government carefully monitors the emotional states of citizens	559	2.34	.912
2. The government tries to listen to citizens' opinions to maintain a good relationship with citizens	559	2.38	.929
3.The government knows how to persuade citizens	559	2.21	.898
4.The government acts cautiously to deal with policy issues	559	2.46	.955
Citizens' collective action			
1. I have persuaded people around me (acquaintances) in person regarding issues of government policy	559	2.55	.894
2. I have gathered with others in person to solve problems and address issues of government policy	559	2.47	.875
3. I have participated in an in-person signature-collecting campaign concerning a government policy issue	559	2.79	.926
4. I have attended in-person street demonstrations, protests, and rallies focused on issues of government policy	559	2.53	.931
Citizens' fear			
1. When I think about disasters, I get frightened	559	3.71	.835
2. I'm nervous when I think about the dangers of disasters	559	3.75	.849
3. It is scary to think that a disaster will happen	559	3.82	.891
4. I am uneasy about the danger of disaster	559	3.76	.867
Citizens' confidence in the government's disaster management capacity			
1. I think the government properly implements its disaster management policy	559	2.29	.834
2. I think the government's disaster management approach and procedures are sympathetic to the public	559	2.34	.884
3. I believe that the government's compensation for victims in the event of a government-induced disaster is appropriate	559	2.32	.896
4. I think the government's disaster management policy effectively solves the problem	559	2.27	.881
Control variables			
1. Education status	559	3.51	1.005
2. Economic status	559	2.17	.631
3. Sex	559	1.50	.500
4. Age	559	40.65	13.423
5. Age range	559	3.62	1.433

Table 2 Fit indices for analysis model

Absolute fit index						Incremental fit index			
χ^2				GFI	RMSEA	IFI	TLI	CFI	NFI
χ^2	DF	χ^2/DF	p	0.95	0.04	0.98	0.97	0.98	0.96
261,712	126	2.077	0.000						
Suggested threshold				≥0.95	<0.06	≥0.95	≥0.95	≥0.90	≥0.95

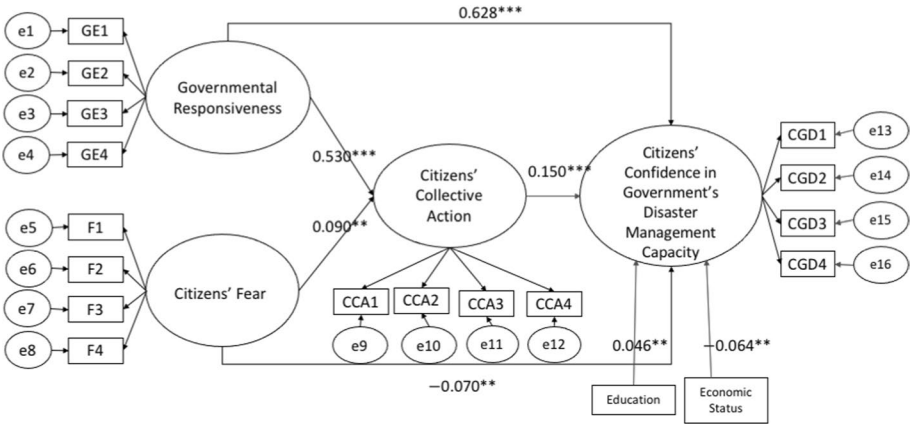

Fig. 3 Structural model analysis results

attitudes toward collective action by citizens over a long-term recovery process. In the early stages of the citizens' collective action, the Korean government made aggressive attempts to suppress and disperse citizen gatherings. Some citizens responded to these government efforts with violence by attacking police. Over time, the government began to modify its reactions in response to the citizens' collective voice. The government sought to support citizens in maintaining a peaceful environment during street demonstrations in the Gwang-Hwa Moon area by dispatching safety guards, and it continued to open public incense altars. Citizens, in turn, became compliant with safety guards' instructions. In response to victims and their families' primary requests, the government eventually salvaged the sunken ferry by hiring a foreign ship management company specializing in pulling up heavy vessels. The government's positive response to the citizens' collective action should motivate more citizens to participate in this form of interactive communication.

Citizens' fear of disasters also increased their collective action to a significant degree ($\beta = 0.090$, $p < 0.01$). This valid effect reveals the critical role of negative emotion in generating collective action. Fear as spontaneous emotional arousal in response to perceived risk traumatizes citizens (Lerner & Keltner, 2001). Citizens were exposed for several weeks to vivid pictures and videos of the sinking ferry and tragic stories in the media, which traumatized them and increased their fear of potential accidents. Fear was widespread and even intensified among citizens who shared cultural norms and general expectations for the government. Citizens communicated actively with one another to carry out collective action. Their continual communication may have functioned to increase fear

in the society through the sharing of personal negative feelings, which provoked radical collective action by citizens in response to the government's lack of responsiveness and incapacity to deal with the crisis (Bartholomew & Victor, 2004). As a result, fear played a role for a long time as an intrinsic motivation for collective action.

This research set education and economic status as control variables. Citizens with higher levels of education ($\beta = 0.046$, $p < 0.01$) had higher confidence in the government's disaster management capacity, whereas citizens with higher economic status ($\beta = -0.064$, $p < 0.01$) had lower confidence in the government's disaster management capacity. Existing research does not show consistent impacts of education and economic status on citizens' confidence in government and support for public policy (Gross et al., 2009; Park & Kim, 2016; Soroka & Wlezien, 2008). Citizens with higher levels of education generally grasp the complex dynamics of the policy-making process following a crisis better than do citizens with lower levels of education. The government's recovery process following the Sewol Ferry accident involved extended negotiation with diverse participants. Korean citizens with higher levels of education understood the complexity of the policy-making process and recognized the government's increasing efforts to involve citizens' voices over time. As a result, they ultimately had higher confidence in the government. As a consequence of rapid economic growth, Korean society is highly polarized. Korean citizens who have a higher economic status prefer more conservative policies compared to citizens with a lower economic status. A disaster recovery policy for this ferry accident implies redistributive strategies, spending a tremendous amount of tax revenue to salvage a sunken ferry and support victims' families. People with a higher economic status who could be expected to bear a much higher tax burden would understandably be less confident in and supportive of a government that pursues an aggressive policy to reflect the desire of victims' families.

Mediating effects

A mediating variable plays an important role in revealing a third mechanism of causal relationships between independent and dependent variables (James & Brett, 1984). Revealing a new path of causal relationships pinpoints a new function to create synergistic impacts among variables. In this research, citizens' collective action played a role mediating both between governmental responsiveness and CGDMC and between citizens' fear and CGDMC. Governmental responsiveness increased CGDMC indirectly through citizens' collective action (0.0795, $p < 0.001$). This indirect path highlights the desire of citizens to communicate and interact with the government and their proactiveness in doing so. Citizens are not passive observers who simply follow governments' policies. Citizens act as political principals to give feedback to the government's policy designs and implementation in order to enhance its performance as it adapts to a changing environment. Governmental responsiveness plays a leveraging role in its operational capacity by engaging citizens' collective support, which, in turn, promotes the very value of democracy in a civil society.

Citizens' collective action also mediates between citizens' fear and CGDMC. As citizens' fear increased their collective action ($\beta = 0.090$, $p < 0.01$) and their collective action increased CGDMC ($\beta = 0.150$, $p < 0.01$), the indirect impact of fear on CGDMC was 0.0135 (0.09 * 0.15, $p < 0.01$). This indirect path captures citizen fear being transformed to have a positive effect on CGDMC, increasing CGDMC as it worked through citizens' collective action. This mediating role of collective action by citizens signifies a positive function of such action in a society. Even if citizens initiate collective action to express

Table 3 Direct, indirect, and total effects

	Direct effect	Indirect effect	Total effect
Governmental responsiveness	0.628	0.0795	0.708
Citizens' collective action	0.150	–	0.150
Citizens' fear	−0.070	0.0135	0.065

and release their negative emotions, this collective action opens a channel to communicate with the government. A series of interactions between government and citizens in which the two parties adapt to one another within a changing environment transforms the citizens' negative emotions into a force that plays a productive role in supporting the government's policy development and implementation (Table 3).

Our analysis supports the conclusion that both governmental responsiveness and citizens' fear increase citizen confidence in the government's disaster management capacity through citizens' collective action. Even after three years of government efforts to implement a recovery process, citizens generally did not rate the governmental responsiveness very highly (mean: 2.349). Nevertheless, governmental responsiveness served as the most critical factor in increasing CGDMC ($\beta = 0.708$, $p < 0.01$). In other words, it appears that if the government makes visible efforts to listen to and understand citizens' needs and desires, the citizens will strongly support the government in implementing new rules and orders to build an improved social system. Citizens' collective action as a mediator substantially contributes to opening a new pathway of communication, channeling negative emotion to fuel a productive discussion leading to better performance by government operations.

Conclusion

This research reveals a critical function of governmental responsiveness in developing a supportive relationship with citizens in a post-crisis recovery process. After a crisis of human origin, when citizens react very emotionally, citizens' negative emotions decrease their confidence in the government's disaster management capacity. Accordingly, the government's ability to deal with citizens' negative emotions is crucial to restoring citizen confidence, which in turn is needed to leverage the government's recovery process. When the government responds sensitively to citizens' emotional reactions to accidents and reflects citizens' desires in its process of building a new social system, citizens are more likely to strengthen the government's legitimacy as it implements the new policies. This research also presents effective paths for coping with citizens' negative emotions to increase their confidence in the government's disaster management capacity. Citizens' collective action plays a critical role in opening iterative communications between the government and citizens in a policy-making process. Even though the collective actions of citizens in the early stages of a recovery process might be motivated by negative emotions, those negative emotions can become an engine supporting the government's disaster management system through adjustments to the communication processes activated by the citizens' collective action.

Policy-making for post-crisis recovery is a complex activity that requires citizen participation and an effective process for guiding the achievement of a decision (De Nicola et al., 2020; UNISDR, 2015). The success of policy-making for post-crisis recovery

is determined by how a learning process is facilitated among diverse groups of people (Coombs, 2006). Citizens' collective action supports and advances new forms of democratic practices in citizen participation. It provides key means to realize the democratic values that establish an adaptive management system by engaging diverse desires and interests in a policy-making process (Abels, 2007). In the short term, citizens' collective action could be perceived as disruptive and contentious, perpetuating friction and struggle among different cultural, economic, and social orientations and interests (Honig, 2009). In the long term, however, citizens' collective action plays a crucial role in building a supportive culture that engages and empowers under-represented groups, including victims, in the policy-making process for post-crisis recovery (Shinn & Toohey, 2003). In contrast to such an augmented experience of citizenship, the government's perception of citizens remains outdated in many cases, treating citizens as "customers" and patronized recipients of the State's services (Anderson, 2013). This perception causes the government to disregard citizens' desires and view citizen engagement as an unnecessary burden and as a barrier to effective achievement of organizational goals (Stern et al., 2010). Alternatively, the government often offers citizens scientific and technical communications in response to competing demands (Predmore et al., 2011). When the Korean government brought up the monetary values of their compensation plans for victims and their families, the result was further societal estrangement and lost opportunities for sharing a collective vision and goal for the future. Consequently, the recovery policy-making process was prolonged.

Our research also reveals that an emotional aspect in a disaster management system serves as a critical factor in initiating and supporting the process of collective decision-making that determines policy and action. Citizens' emotional reaction is "an underlying response to the perceived relevance of external stimuli" (Brader, 2005: 390). As a reaction to threats, fear provides citizens with a great impetus to break through the existing routinized system and acts as a surveillance system to activate them to seek alternative courses of action (Brader, 2005; Marcus et al., 2000). Furthermore, when citizens experiencing fear perceive high levels of political efficacy to be in control of the causal agent of the harm, they feel anger and are more likely to participate in political action (Lerner & Keltner, 2001; Valentino et al., 2009). In response to this, the government should provide citizens with a proper channel not only to express their negative emotions but also to utilize those emotions as a constructive way to exercise their citizenship. Korean candlelight demonstrations have become firmly established as a cultural and social ritual symbolizing active citizenship. Even though these candlelight demonstrations are often initiated and mobilized by citizens' negative emotions, they have played an important role in allowing Korean citizens to create and share a strong sense of social ownership and democratic efficacy for proactively creating a better future. This finding offers governments a practical way to transform citizens' negative emotions into a positive and critical force for rebuilding democratic, adaptive management systems together with their citizens.

Meanwhile, governmental responsiveness ultimately aims not merely at accepting citizens' demands but at balancing the competing demands of citizens and government (Yang & Pandey, 2007). A government should be able to find an appropriate budgetary limit to its responses to citizens' desires and negotiate that limit with citizens in a policy-making process in the early stages of the recovery process. The interests of citizens in any given policy are heterogeneous. Citizens who have a strong personal interest in a given issue are more proactive and aggressive in mobilizing collective action on that issue (Sabatier, 1988; Schlager, 1995). Active listening by decision-makers promotes governmental responsiveness in a process of constructing, together with citizens, possibilities for doing and being otherwise, thus realizing the democratic value of adaptive

management (Greene, 1982; Sharp, 1981; Stivers, 1994). A lagging response by the government could drive negative emotions among citizens to an extreme, which, in turn, decreases their flexibility in negotiating with the government to find more feasible policies. If the government fails to settle on appropriate levels of budget and effort allocation for a new policy, that new policy could lose coherence and consistency, conflicting with other policies in the totality of national plans (Hoover & Stern, 2014) and increasing tax burdens for the entire citizenry to bear. The Korean government's decision to salvage the sunken ferry was criticized by citizens for its cost of 550 billion dollars, 0.036% of the total budget of the Korean Ministry of Fisheries and Maritime Affairs (Lee, 2017). The negative effect of citizens' economic status on their confidence in the government's disaster management capacity captured in our analysis reflected the heavy tax burden on citizens for the recovery process following the Sewol Ferry accident. The government's lagging response to victims' families and citizens' voices resulted in the accumulation of physical, psychological, and social costs as victims' families and citizens became less flexible in their negotiations with the government on policy suggestions.

This research has some limitations, to be made up in future studies. The time frame of data collection was three years after the Sewol Ferry accident. We expect that the respective impacts of citizens' fear on their collective actions and on their confidence in the government's disaster management capacity might have shown up more strongly if our survey had captured responses right after the accident. Because of time, physical, and financial constraints, we could not conduct more extensive surveys to collect more respondents for our analysis, which might therefore not fully represent the entire Korean population. By including larger survey samples and a wider time window, future research could compare the impact levels of the selected variables immediately following an accident—at the time that a recovery process is being initiated—with those levels as the recovery process is wrapping up. Even with this limitation, this research clearly presents valid, important, direct and indirect paths among the variables, demonstrating significant lessons for a post-crisis policy-making process. This result captures the effects of a government's continual efforts to communicate with its citizens, embracing and responding to emotional factors, to gain their confidence as it builds an adaptive management system in a post-crisis policy-making process.

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