Towards Effective Temporary Organizing in Crises: A Tale of a Control Command in Responding to COVID-19 in China

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Abstract
Control commands established by Chinese local governments to tackle COVID-19 proved effective in containing its spread nationwide. The primary interest in this contribution is to uncover the mechanism underlying the effectiveness of a control command established by Qingdao municipality in managing COVID-19. We conclude that the combination of five conditions, namely, task immersion, qualified team members, flexible organizing, high swift trust, and high operational representation, is sufficient to result in effective temporary organizing. Our study contributes to the policy and governance literature through adding building blocks to the explanation regarding the effectiveness of temporary organizations in managing crises.

Keywords Temporary organization · Control command · Effectiveness · COVID-19 · China

Introduction
Over the past few years, the scholarly interest in temporary organizations has been growing (Bakker et al., 2016; Grabher, 2004; Li & Song, 2022; Saunders & Ahuja, 2006; Sydow et al., 2004). Nowadays, governments around the world increasingly adopt temporary organizational arrangements to provide public services and resolve wicked problems in an effective, efficient, and satisfactory way (Bakker, 2010). The trend toward a growing reliance on temporary organizations is widely regarded as projectification, implying that public sectors increasingly accomplish their tasks...
through temporary organizational forms (Godenhjelm et al., 2015). In general, temporary organizational arrangements refer to a group of chosen participants coming together to resolve a specific task or achieve a particular goal within a limited period of time (Saunders & Ahuja, 2006; Sydow et al., 2004).

Temporary organizational arrangements are widely recognized as an eminently suitable option for governors to address crises effectively (Feibleman & Friend, 1945; Li & Song, 2022; Ligthart et al., 2016; Sethi & Sethi, 1990; Sparf, 2019). However, little is known about the mechanism underlying their effectiveness. To remedy this lack, we raise the following research question: How can temporary organizations’ effectiveness in the face of crises be explained? To answer this question, we investigate how a temporary organization—a control command established by a Chinese local government—responded to COVID-19. The occurrence of COVID-19 at the end of 2019 negatively influenced the economic and political order of Chinese society, and governments established control commands to manage it effectively. Control commands as the power hub played a dominant role in making policies, coordinating actions, allocating resources, and implementing and monitoring policies to tackle COVID-19, and they proved effective in containing the spread of COVID-19 nationwide. Our primary interest in this contribution is to uncover the mechanism underlying the effectiveness of a control command—established by Qingdao municipality—in containing COVID-19. Our contribution contributes to the governance and policy literature through adding new building blocks to the explanation of the effectiveness of temporary organizations in managing crises. It also provides suggestions for practitioners to achieve an effective response through temporary organizations to tackle crises.

The remainder of this article is structured as follows. The analytic framework is first introduced, following which the method applied is shown. Then, the case is presented and analyzed. The article ends with a discussion and conclusion.

**Analytic Framework**

**Temporary Organizations**

Authors from disparate academic fields have espoused various concepts, such as ephemeral organizations, transitory organizations, project-based organizations, and temporary distributed teams, which have virtually a same meaning as the concept of temporary organization (Bakker et al., 2016; Burke & Morley 2016; Sydow et al., 2004). To date however, there is no consensus about the definition of temporary organization. Nevertheless, most authors agree that temporary organization refers to a specific type of organizing, which involves a group of participants who often are not familiar with one another, but are interdependent, executing a certain task for a limited period of time (Bakker, 2010; Bigley & Roberts, 2001; Burke & Morley, 2016).

Temporary organizations have multiple advantages. They are widely known as flexible, discontinuous, ephemeral, agile, extra-bureaucratic, and responsive (Godenhjelm et al., 2015). Also, they have the potential to enable organizations to gain knowledge and legitimacy, and are believed to create a high level of creativity and
innovation (Burke & Morley, 2016). However, there are also some concerns about them. Because temporary organizations focus predominantly on the accomplishment of a certain task, they pay less attention to relationship building compared to permanent organizations (Grabher, 2004). Also, because of their unfamiliarity with local needs, they may fail to embed in the local communities that they serve (Bakker, 2010). Moreover, because temporary organizations mostly have a limited lifespan, their participants tend to have insufficient time to foster trust, organizational identity, and organizational cohesiveness (Bakker, 2010; Meyerson et al., 1996). Furthermore, the integration of the participants involved in temporary organizations is difficult, as the stability of permanent organizational structures is disrupted, but there is little time to establish new routines (Sparf, 2019).

Bakker et al. (2016) have identified four types of organizational forms based on two dimensions, the temporariness of agents and the temporariness of structures: permanent organizations, ephemeral organizations or disposable organizations, project-based organizations, and temporary employment or contract-based organizations. Permanent organizations differ from temporary organizations as the former have a stable structure and agents. Ephemeral or disposable organizations are temporary organizations in a narrow sense; both their agents and their structures have a limited time span. For instance, some rescue and relief organizations emerge spontaneously in response to disasters, and they dissolve after completing the rescue and relief task. Project-based organizations are essentially semi-temporary organizations; their agents are permanent whereas their structure is temporary (Lundin et al., 2015). In many cases, temporary groups or teams are established within permanent organizations to resolve a specific task (Bakker, 2010). A typical example is that a task force composed of officials is established by government to deal with an incident, and it dissolves when it accomplishes its task. Temporary employment or contract-based organizations refer primarily to a situation where the agents are temporary although the structure of the organization is permanent. One example is that a government agency hires part-time employees or uses independent contractors to assist its task accomplishment (Bakker et al., 2016).

In this contribution, we are interested primarily in a project-based temporary organization—a control command established by Qingdao municipality in response to COVID-19. Its structure is new, but its agents are from permanent government agencies. In the remainder of this paper, temporary organization refers mainly to it.

The Effectiveness of Temporary Organizations

The dissolution of temporary organizations mostly precedes strategic outcomes, and this temporal lag makes the evaluation of the performance of temporary organizations difficult (DeFillippi & Arthur, 1998). Furthermore, the presence of various uncertainties makes the evaluation of temporary organizations’ performance even more difficult (Goodman & Goodman, 1976). Moreover, the environment that temporary organizations face often encompasses a vast variety of stakeholders, who tend to evaluate their performance differently. Authors therefore have different, or even conflicting, perspectives on the performance of temporary organizations (Bakker, 2010; Burke & Morley, 2016).
Authors have applied various measurements to evaluate the performance of temporary organizations, such as effectiveness, efficiency, reliability, working relationships, member satisfaction, participants’ well-being, professional growth, learning, and group identity (Burke & Morley, 2016; Goodman & Goodman, 1976; Grabher, 2004; Saunders & Ahuja, 2006). Temporary organization participants are concerned primarily with achieving pre-established goals (Olsson, 2006). Effectiveness is the best known and accepted measurement applied by academics and practitioners to evaluate the performance of temporary organizations (Saunders & Ahuja, 2006). Effectiveness refers primarily to the extent to which the pre-established goal has been achieved (Bakker et al., 2016); and task or goal completion has been widely applied by authors to indicate the effectiveness of temporary organizations (Goodman & Goodman, 1976).

The Explanation of the Effectiveness of Temporary Organizations

To date, few studies have been conducted to investigate the mechanism underlying the effectiveness of temporary organizations (for exceptions see: Goodman & Goodman 1976; Saunders & Ahuja, 2006). In this contribution, we have chosen three dimensions, namely, individual, organizational, and institutional, to help us structure our identification of conditions explaining the effectiveness of temporary organizations. Specifically, trust and role conflict resolution are the two key factors that we have chosen at the individual level (Bakker, 2010). We argue that these two conditions directly affect the behaviors of involved actors in temporary organizations, thereby shaping their performance. At the organizational level, the literature suggests that a temporary organization is characterized by four key features: task, time, team, and flexibility (Brady & Davies, 2004; Grabher, 2004; Lundin & Söderholm, 1995; Meyerson et al., 1996). Based on this reasoning, four conditions have been established: task orientation, qualified team members, time limits, and flexible organizing. At the institutional level, we have chosen one key condition: operational representation (Bigley & Roberts, 2001). We assume that the institutional design of temporary organizations, which relates primarily to communication among involved actors, directly anticipates an influence on their performance. Ultimately, we identified seven conditions: trust, role conflict resolution, task immersion, flexible organizing, time orientation, qualified team members, and operational representation. Details of the relationship between these seven conditions and the effectiveness of temporary organizations are elaborated in detail below.

1. **Trust**: the trust relationship among temporary organization participants influences their effectiveness in task execution (Brady & Davies, 2004). Authors have found that such participants generally interact with one another on the basis of a *swift trust*, implying that trust emerges swiftly rather than gradually over time (Meyerson et al., 1996, p.166). Swift trust enables temporary organization participants to “act as if trust were present from the start of the project” (Saunders & Ahuja, 2006, p. 685). When temporary organization participants have a high level of mutual swift trust, they share knowledge openly with their team members, and an effective goal achievement becomes likely (Cramton, 2001). It
is hence concluded that, when temporary organization participants have a high level of swift trust, they are effective in achieving their tasks.

2. **Role conflict resolution**: temporary organization participants mostly have a home organization before they are chosen as members of temporary organizations (Grabher, 2004). They often have difficulty in reconciling various conflicting institutional logics and principles, and role conflicts tend to ensue (Bechky, 2006). Role conflicts are not easy for temporary organization participants to resolve. If they succeed in managing their role conflict, they concentrate on accomplishing their tasks and effective task execution ensues. If they fail to do so, ineffectiveness becomes likely. It is therefore assumed that, when temporary organization participants are able to deal with the role conflict problem, their predefined tasks would be accomplished effectively.

3. **Task immersion**: temporary organizations are task oriented, and for their participants, the completion of a specific task by a scheduled date is their central mission (Bakker, 2010). Task immersion refers primarily to the extent to which temporary organization participants are absorbed in a specific task (Bakker, et al., 2016). When such participants immerse themselves in the completion of a specific task, they focus on the elements that are closely related to its accomplishment (Saunders & Ahuja, 2006), and they are less likely to be distracted by expectations about future events (Lundin & Söderholm, 1995). Task immersion therefore enables temporary organization participants to save some ‘brain space’ to focus fully on present activities, thereby improving their organization’s effectiveness.

4. **Time orientation**: a deadline and temporariness are the central notions of temporary organizations, on which basis they are formed (Bakker et al., 2016). Temporary organizations are thus coined as *time-pressed* organizations (van Fenema & Räisänen, 2005). Time orientation refers to the degree to which the participants focus on the present instead of the future. It refers primarily to a time limit, entailing the notion that temporary organizations terminate at a certain time (Lundin & Söderholm, 1995). In the face of crises, a time limit tends to lead to a sense of dedicated urgency, which requires temporary organization participants to focus on completing their tasks. This increases their organization’s effectiveness in achieving its goals.

5. **Qualified team members**: temporary organization participants assemble together to execute a specific task (Bakker, 2010). Traditionally, it is believed that they are selected on the basis of their interpersonal skills and competences (Morley & Silver, 1977). Increasingly, it has been suggested that they are intentionally chosen for their task-related knowledge (Edmonson & Nembhard, 2009). This means that the chosen participants mostly have the knowledge needed to accomplish the goals established by the temporary organization. It is therefore assumed that, if temporary organization participants are intentionally selected and highly qualified, they would achieve their goals effectively.

6. **Flexible organizing**: temporary organizations generally function in uncertain situations, and it is impossible for them to have pre-established plans for all unexpected contingencies (Bigley & Roberts, 2001). Flexible organizing is recognized as a favorable option for temporary organizations, allowing their
participants’ actions to be coordinated in a relatively adaptive way with the potential to accomplish their predefined tasks as well as non-routine tasks effectively (Olsson, 2006). Temporary organizations can apply various strategies to manage their flexibility, such as adjusting political attention, changing priorities, altering organizational structures, and improvising routines (Li & Song, 2022). It is concluded that, when temporary organizations are flexibly organized, they tend to be effective in achieving their goals.

7. Operational representation: some authors have suggested that the degree to which temporary organizations are able to coordinate their participants’ behaviors effectively depends largely on the extent to which these participants are able to maintain a viable understanding of the activities they undertake (Weick & Roberts, 1993). These understandings, called operational representations, represent the basic cognitive infrastructure, allowing temporary organization participants to integrate their behaviors with their team members on a moment-to-moment basis (Bigley & Roberts, 2001). Operational representation is achieved mostly through intensive communication (Bigley & Roberts, 2001). We argue that accurate and timely representational information is helpful for temporary organization participants to coordinate their behaviors with the evolution of the external environment, thereby improving their effectiveness in goal accomplishment.

In this study, these seven conditions are applied to explain the effectiveness of Qingdao control command in responding to COVID-19. The relationships between these seven conditions and the effectiveness of temporary organizations are presented in Table 1. We assume that each individual condition is necessary but not sufficient in explaining the effectiveness of Qingdao control command in addressing COVID-19. In this contribution, our primary interest lies in identifying the unique configuration of the conditions that constitute the effectiveness of Qingdao control command.

Method

The case study approach is applied in this study as it is appropriate to answer how-oriented questions (Yin, 2008). Here, our main research interest lies in the explanation of the effectiveness of a temporary organization—a control command established by Qingdao municipality—in tackling COVID-19. We chose this case for study chiefly for three reasons. The first is that Qingdao control command was effective in achieving its predefined goal, containing the spread of COVID-19 in the whole Qingdao city. It is thus a suitable case for us to answer our research question. Second, our case is representative, and conclusions drawn from it are generalizable to other cases in the Chinese context. The control commands established by governments in China follow a more or less similar institutional logic. Conclusions drawn in our study could inform control commands in other Chinese cities. Third, a practical reason is that it was possible for him to collect firsthand data and information. It is difficult to access data on Chinese governance, and these firsthand data enabled us to obtain in-depth insights into the effectiveness of Qingdao control command in managing crises.
Table 1 The relationship between seven explanatory conditions and the effectiveness of temporary organizations

| No. | Level          | Condition       | Assumption                                                                                                                                 |
|-----|----------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Individual     | Trust           | When temporary organization participants have a high level of swift trust, they tend to accomplish their tasks effectively.              |
| 2   | Role conflict  | resolution      | When temporary organization participants are able to resolve their role conflicts, they would be effective in accomplishing their goals.  |
| 3   | Organizational | Task immersion  | When temporary organization participants immerse themselves in task execution, the predefined goals of their organization tend to be achieved effectively. |
| 4   | Time orientation |                | Time orientation may be transformed into mental stresses, which would push temporary organization participants to execute their tasks effectively. |
| 5   | Qualified team | members         | When the chosen temporary organization participants are highly qualified, they tend to be effective in goal achievement.                  |
| 6   | Flexible       | organizing      | When temporary organizations are flexibly organized, they tend to be effective in achieving their goals.                                 |
| 7   | Institutional  | Operational     | A high level of operational representation facilitates the effectiveness of temporary organizations in achieving their predefined goals.  |

Our data collection, which started at the beginning of March 2020, lasted about three months. Our second author personally conducted 22 semi-structured interviews using a snowball approach. The interviews were recorded and transcribed. Our respondents were from six different working groups in Qingdao control command. The respondents’ details are presented in the Appendix 1. Moreover, 106 meeting minutes and 512 working briefings released by Qingdao control command were collected. They provided a lot of useful information about the main activities undertaken by Qingdao control command over time.
Case

On December 26, 2019, Wuhan municipality received early warnings of four abnormal pneumonia cases, and an epidemiological survey was conducted three days later. On December 31, 2019, the National Health Commission dispatched an expert group to investigate this unknown pneumonia. Then, local government in Wuhan announced no new confirmed cases and denied that the new disease could be transmitted person-to-person. On January 2, 2020, a large local wet market where the earliest case was found was closed. On January 20, 2020, the Joint Prevention and Control Mechanism, headed by the vice premier, was formally established by the State Council. This mechanism took a lead in developing policies and rules for the whole country to fight the disease. On January 22, 2020, Wuhan municipality announced a strict lockdown of the city. All public transportation, including by air and rail, in Wuhan city was suspended. After that, an inspection team was dispatched by Chinese central government to Wuhan, and an crisis response taskforce headquarters was established there. On January 25, 2020, the politburo standing committee started to discuss the disease, and several measures were taken to deal with it. A key measure was to establish a centralized and unified leadership to fight the disease.

Local government in Qingdao also took action to deal with the disease. As early as January 17, 2020, the Qingdao Health Commission established a leading group that was responsible for responding to the disease. On January 21, 2020, Qingdao municipality established a control command, which was chaired by both the Mayor and the Party Secretary, and consisted of one office and seven working groups. It was the highest authority developing strategies and policies and coordinating the actions of various government agencies to contain the spread of the disease. Each working group of Qingdao control command was composed of officials from different government agencies. One example is the Pandemic Prevention and Control group, which consisted of several government agencies, such as the Police Bureau, the Culture and Tourism Bureau, and Customs.

In China, establishing a control command is essentially a standard operation procedure for the state in managing complex and wicked societal issues. In face of large-scale disasters or crises, governments in China establish control commands with the aim of effectively coordinating the actions of involved actors and mobilizing resources. Control commands are rearrangements of existing government agencies, and their participants are recruited mainly from permanent government agencies. Details of the main functions and the involved permanent government agencies of the seven working groups and the office affiliated to Qingdao control command are presented in Table 2.

Case Explanation

The Effectiveness of Qingdao Control Command in Managing COVID-19

COVID-19 is widely regarded as the second trans-boundary mega-crisis in the 21st century, which has fundamentally challenged governments around the world. To
| Working group | Related government agencies                                                                 | Main responsibilities                                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Office        | • The General Office of Qingdao municipality  
• The Health Commission  
• The Foreign Affairs Office  
• The Archives Bureau | (1) Coordinating the schedules and activities of Qingdao control command;  
(2) Drafting working papers;  
(3) Reporting the work of Qingdao control command to the higher-level governments;  
(4) Facilitating information sharing among different working groups. |
| Medical treatment group | • The Health Commission  
• The medical treatment expert and infection control expert from hospitals | (1) Selecting designated hospitals for the treatment of confirmed cases and suspected cases;  
(2) Organizing training for hospitals’ personnel on the prevention of COVID-19;  
(3) Establishing the types and the quantities of materials required for medical treatment;  
(4) Dispatching staff to conduct medical treatment for suspected cases and confirmed cases;  
(5) Promoting the use of traditional Chinese medicine in the prevention and control of COVID-19. |
| Pandemic prevention and control group | • The Health Commission  
• The Education Bureau  
• The Public Security Bureau  
• The Civil Affairs Bureau  
• The Culture and Tourism Bureau  
• The Customs | (1) Monitoring and reporting the confirmed and suspected cases;  
(2) Designing instructions for the public to prevent the inflection of COVID-19;  
(3) Making recommendations for initiating and terminating emergency responses;  
(4) Monitoring and managing COVID-19 among overseas students and giving them lessons on its prevention and control;  
(5) Managing professional rescue teams;  
(6) Cleaning and sterilizing public spaces around the whole city. |
| Living supplies and medical supplies group | • The Development and Reform Commission  
• The Finance Bureau  
• The Industry and Information Technology Bureau  
• The Commerce Bureau  
• The Market Supervision Bureau  
• The Water Affairs Bureau  
• The Agriculture and Rural Affairs Bureau  
• The Ocean Development Bureau  
• The Health Commission  
• The Emergency Management Bureau  
• The Medical Security Bureau  
• The Transportation Bureau  
• The Civil Affairs Bureau | (1) Managing funding raised and donations from the society;  
(2) Coordinating the production, supply, procurement, storage and allocation of medical materials and living materials;  
(3) Ensuring the transport of emergency supplies around the whole city. |
date, it has caused large numbers of deaths in many countries and has negatively influenced people’s economic and social life (Boin et al., 2020). China’s experience in fighting COVID-19 was generally effective for two reasons. Firstly, its spread
around the whole country was effectively contained. As at the end of March 2022, COVID-19 had caused 6.16 million deaths around the world. Meanwhile, most Chinese citizens’ lives have returned to normal, and businesses have been reopened. By the end of March 2020, about 98% of large industrial companies had reopened.\(^1\)

Second, compared with many other countries, such as the US, Italy, and Spain, total confirmed cases and the mortality rate in China are much lower. On May 28, 2020, the total numbers of confirmed cases and fatalities around China were 82,995 and 4,634, respectively.\(^2\)

We have proposed in our analytic framework that goal achievement is the indicator applied by authors to measure the effectiveness of temporary organizations. In Qingdao, the control command was in charge of the activities of all government agencies in response to COVID-19, and its primary goal was to contain its spread in its jurisdiction. In Fig. 1,\(^3\) the number of confirmed cases from the end of January 2020 to the middle of September 2020 in Qingdao is shown. It indicates that COVID-19 was well contained by Qingdao control command from the end of April 2020. More importantly, people’s quality of life during lockdown in Qingdao was not negatively influenced, and social order in general was well maintained.\(^4\) This means that Qingdao control command effectively achieved its predefined goal, and thus it can be regarded as effective.

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\(^1\) [http://dz.jjckb.cn/www/pages/webpage2009/html/2020-04/08/content_63043.htm](http://dz.jjckb.cn/www/pages/webpage2009/html/2020-04/08/content_63043.htm).

\(^2\) [http://www.nhc.gov.cn/xcs/yqtb/202005/874765e641254eb4acea9d5e945f4e01.shtml](http://www.nhc.gov.cn/xcs/yqtb/202005/874765e641254eb4acea9d5e945f4e01.shtml).

\(^3\) We collected the data ourselves mostly through reviewing our gathered government documents released by Qingdao control command.

\(^4\) We have drawn this conclusion from two data sources: data from news reports and data from government documents released by Qingdao control command.
The Explanation of the Effectiveness of Qingdao Control Command in Managing COVID-19

In our analytic framework, we have identified seven conditions that are crucially important in explaining the effectiveness of temporary organizations in managing crises. In the following, we elaborate in detail how these conditions relate to the effectiveness of Qingdao control command in containing COVID-19.

Swift Trust

Authors have suggested that trust among temporary organization participants emerges swiftly (Meyerson et al., 1996). In our case, our respondents generally agreed that the Qingdao control command participants had a high level of trust. They emphasized that the chosen participants came to the control command with the same goal, and everyone focused their attention solely on accomplishing their tasks assigned by the control command. In China, strong party leadership remains the overriding principle of Chinese governance, and the Leninist rule of political command demands local governments’ unconditional compliance with the party’s decisions (He et al., 2020). Most of the involved actors in Qingdao command control were party members, and their shared unconditional compliance with the party’s decision facilitated their trust building. When the Chinese Community Party established the strategy of preventing the spread of COVID-19 around China, they had to focus their attention on enforcing this decision, and they did not have extra attention and time for turf wars; this facilitated their trust building. As explicitly contended by respondent 9, “when the relationship between the involved participants was harmonious, you would feel happy. Then it would be facilitative of goal achievement.”

Moreover, the Qingdao control command participants’ ample opportunities to interact with one another in responding to COVID-19 helped them to build a trust relationship. Respondent 3 pointed out, “now we could know one another very well because we fight together in the same trench. After several tentative rounds, we have become close comrades in arms.” Also, the Qingdao control command participants had direct experience of their supervisors’ exemplary actions, and this facilitated the building of a trust relationship among different levels of officials. As argued by respondent 6, “I do believe their [our supervisors] commitment to their work deserves our learning. I could not say they always came to work early and returned home later. But they were always available whenever I wanted to find them.” Likewise, respondent 9 agreed with this, adding, “our supervisors always dedicated themselves to accomplishing their tasks…… and I saw their dedication and felt it touching.” In short, the Qingdao control command participants generally had a high level of trust, which facilitated the effective containment of COVID-19.

Role Conflict Resolution

As we have shown in our analytic framework, role conflicts result in confusion and difficulties for temporary organization participants in accomplishing tasks. After Qingdao control command was formally established, it explicitly regulated that all the
participants should focus their attention predominantly on resolving COVID-19. As pointed out by respondent 5, “the chosen participants were dispatched by their home organizations, but they must prioritize achieving the goals set by the control command while working in it.” Another typical opinion was expressed by respondent 6, “our supervisor has proposed that no matter where you worked before and what you did in your home organizations, you must first accomplish the tasks assigned by the control command.”

We found that the participants had conflicting viewpoints about the role played by their home organizations in their task execution. Some respondents contended that the tasks assigned by their home organizations were generally not that much, and they did not necessarily have to spend substantial time in addressing them. As argued by respondent 5, “often I just need to make a phone call to my home organization to handle urgent issues. I must have a check. But this does not take me much time.” Respondent 18 agreed with this, adding, “my job duties in my home organizations were taken by my colleagues. If there are urgent issues [from my home organization], I can manage them.” However, several respondents disagreed with this and maintained that it was not easy to deal with role conflicts. This was stated explicitly by respondent 17, “it is difficult [to deal with role conflict]. If you are lower-level officials, this [role conflict] may not be a serious issue. However, if you are higher-level officials, you must have to assume tasks from both your home organization and the control command.” Similarly, respondent 13 expressed his concerns, “I have been working in the control command for over three months. If I continue to ignore the tasks assigned by my home organization, my role played there would be replaced by others. So, I must assume tasks from both the control command and my home organization. It is difficult for me to balance this.” Because of the inconsistencies in the respondents’ viewpoints, it cannot be concluded that role conflict was well resolved by the control command participants. Consequently, there is uncertainty about its influence on the effectiveness of Qingdao control command in the containment of COVID-19.

Task Immersion

A key advantage of Qingdao control command was that it allowed its participants to focus their attention on accomplishing their tasks with little disturbance. When the participants worked in Qingdao control command, they did not need to treat irrelevant issues seriously and had to take care only of those that were relevant for the resolution of COVID-19. As stated by respondent 6, “there is only one aim for Qingdao control command, containing COVID-19......when we came here, we put our daily work aside and just prioritized addressing it.” Moreover, Qingdao control command created facilitative conditions for the participants to isolate themselves from external disturbances. A revealing example is that all the participants worked in a same building, and this co-location facilitated their information exchange and action orchestration. A statement made by respondent 9 reinforces this point, “when you have some inquiries, you just need to speak it out directly. For instance, you may ask how to deal with the suspected cases who do not have opportunities to be isolated in hospitals. When your colleagues in the same office know this, they would tell you
directly. This is how we resolve problems.” Another example is that Qingdao control command empowered the involved working groups and granted them substantial discretionary power. This also facilitated containment of COVID-19. “Most decisions are made by ourselves. For some urgent issues, we may ask instructions from higher-level officials. But this is just a standard operational procedure, and they mostly do not deny our initiatives” (respondent 18). These supportive conditions enabled the participants to immerse themselves in containing COVID-19, thereby facilitating the effectiveness of Qingdao control command.

Qualified Team Members

Temporary organizations may intentionally choose participants who they perceive best to accomplish a task (Ligthart et al., 2016). “All the participants that came here are capable and are professionally competent” (respondent 7). In our case, the Qingdao control command participants were intentionally selected by the Qingdao Organizational Department, which is a powerful government apparatus in determining the promotion and demotion of government officials. Most of the chosen participants were backbones of their home organizations. As indicated by respondent 17, “the chosen participants in the control command are competent in their home organizations.”

Moreover, the participants chosen for Qingdao control command were generally responsible and responsive. Respondent 18’s opinion was typical, “those who are indifferent would not be chosen to come here. If they come here, they would be incapable of assuming their responsibilities. Even they may make things worse……the managers of the control command of course would take this into account.” Furthermore, many of the chosen participants had prior experience in addressing crises. “When I initially came here, I felt confused and was wondering why I was chosen given my [old] age......Later, I recognized that many officials that came here had prior experience in managing crises” (respondent 8). This means that the chosen participants indeed had relevant knowledge relating to the management of crises. To sum up, the engagement of highly qualified team members was helpful for Qingdao control command to contain the spread of COVID-19.

Flexible Organizing

Over time, Qingdao control command flexibly organized its day-to-day operations primarily through four different approaches: adapting interaction frequency, changing organizational structures, improvising routines, and altering tasks. First, it flexibly adjusted the frequency of interactions among the participants. Face-to-face meetings were the participants’ main approach to exchange information and coordinate actions. The main municipal leaders and the heads of the various working groups attended these meetings. They discussed the status quo of COVID-19, difficulties and challenges faced, and the plans for the next stage. Initially, from January 20, 2020, to April 5, 2020, a face-to-face meeting was organized by Qingdao control command every day. From April 6, 2020 to April 30, 2020, it was organized virtually every two or three days, and it was organized every three or four days from May 1, 2020,
to July 13, 2020. From July 14, 2020, a meeting was organized every seven days or more. In short, the frequencies of the interactions among the Qingdao control command participants decreased in response to the reducing need to manage COVID-19.

Second, Qingdao control command flexibly changed its organizational structure to better accommodate the changing environment. Initially, it was uncertain about the types of organizational arrangements that should be established. On January 21, 2020, the organizational structure of Qingdao control command was formally established, consisting of one office and seven working groups: the pandemic prevention and control group, the medical treatment group, the transport and port quarantine group, the news propaganda group, the living supplies and medical supplies group, the market regulation and patriotic health group, and the expert consultation group. Over time, its organizational structure underwent changes. For example, on April 8, 2020, three new working group were established: the serving citizens newly coming to Qingdao group, the school resumption guarantee group, and the seaport management group. In general, its organizational structure changed in line with the changes in its priorities. For example, when Qingdao residents were asked to stay at home, the control command established a social management and visit group; and when students resumed their studies in Qingdao, it established a school resumption guarantee group.

Third, the institutionalized routines to manage COVID-19 could be improvised. In permanent government organizations, the standard operation procedures are rigid and cannot be negotiated. For information exchange in traditional permanent organizations, a hierarchical information exchange system dominates. This means that officials report their work and exchange their ideas with their supervisors. However, this hierarchical information exchange system became horizontal to effectively contain the spread of COVID-19. Respondent 10 maintained, “based on standard operation procedures, I am not allowed to contact senior officials directly. But now I could do so just because of current crisis situations.” This point was further confirmed by respondent 5, “in my daily work, I mostly do not need to report my work directly to our director. But now I have to do so to guarantee the provision of living supplies.” This indicates that the rules and routines of permanent organizations could be improvised by the Qingdao control command participants to better contain COVID-19.

Fourth, the tasks and the duties of the involved working groups were established in a flexible way, unlike traditional permanent organizations, whose tasks are often established beforehand and are stable. In Qingdao control command, its working groups’ tasks were emergent and adjusted in line with the changes in the external environment. As stated by respondent 9, “we originally developed three teams and established their duties. However, their duties had to be adjusted with the changes in external situations.” This indicates that the Qingdao control command working groups’ duties and tasks were adjusted constantly to better contain the spread of COVID-19.

In short, the flexible organizing of Qingdao control command enabled it to better accommodate the external environment, thereby facilitating its containment of COVID-19.
Time Orientation

A temporary organization is essentially time-pressed, and its participants often face considerable mental stresses to accomplish their tasks within predefined deadlines (van Fenema & Räisänen 2005). Regarding the influence of time orientation on the effectiveness of Qingdao control command in managing COVID-19, our respondents expressed conflicting viewpoints. On the one hand, some argued that time limits were transformed into mental pressures, which required them to try their best to accomplish their tasks as soon as possible. The Qingdao control command participants viewed the fight against COVID-19 as a war, and they had a sense of urgency to achieve a success. In the Chinese context, war narratives are widely used in disaster relief and crisis management. They often imply a containment campaign (zuji zhan), total war (zongti zhan), a battle of annihilation (jianmie zhan), and a people’s war (renmin zhanzheng). The anti-pandemic campaign was ultimately framed as a battle between the virus and mankind (He et al., 2020). “Because we are now in a wartime, this means it is unsustainable. We have to accomplish the predefined tasks in a short period of time” (respondent 7). Moreover, this war narrative conveyed a strong sense of urgency and functioned as emotional mobilization, requiring the involved officials to treat the tasks assigned by Qingdao control command seriously and prioritize the resolution of COVID-19. A typical view was expressed by respondent 4, “in my home organizations, most of our tasks do not need to be addressed urgently. A key difference working here is that we have to remain alert, become prepared, and avoid making mistakes.”

On the other hand, time orientation also had a negative influence on the effectiveness of Qingdao control command in responding to COVID-19. As respondent 3 maintained, “when the time left is sufficient for the temporary organization participants, the quality of their task execution is high. However, a tight time schedule would hinder the quality of task execution.” From the end of January 2020, the Qingdao control command participants faced considerable pressure to contain COVID-19, and they believed that they had to work much harder to achieve this. “From January 21, 2020, when I came here, I worked every day, even on weekends. I had many different tasks to accomplish and had to work overtime every day” (respondent 7). Working overtime for a long period of time made the control command participants feel exhausted, which negatively influenced their effectiveness in task accomplishment. Hence, we assume that there is uncertainty about the influence of time orientation on the effectiveness of Qingdao control command in containing COVID-19.

Operational Representation

As we have proposed in the analytic framework, intensive communication is critical for temporary organization participants to obtain representational information (Bigley & Roberts, 2001). Because the tasks confronted by Qingdao control command were constantly changing, the assessments made by its participants could not be finalized at any point. In our case, a three-tier communication system was the key mechanism for Qingdao control command to avoid disconnected and discrepant representations. The three-tier system refers to the team level, the working group level, and the con-
trol command level. Qingdao control command consisted of several working groups, and a single working group consisted of several teams. To take the medical supplies provision team as an example, it was responsible for delivering medical supplies for residents and frontline staff in whole Qingdao city. Often, it organized face-to-face meetings at 10pm to discuss the status quo regarding the provision of medical materials. At 10am in the next day, the living supplies and medical supplies working group would organize face-to-face meetings, during which the head of the medical supplies provision team give a report to the working group about the general situation relating to medical supplies delivery. In the afternoon, regularly at 4pm, a face-to-face meeting was organized by Qingdao control command, during which the head of the living supplies and medical supplies group would attend and give a report to the heads of other working groups and the main municipal leaders about the status quo regarding living supplies and medical supplies provision. In total, 106 face-to-face meetings were organized by Qingdao control command from the end of January 2020 to the middle of September 2020, thereby guaranteeing effective information exchange among the participants of various working groups. This allowed them to obtain representational information. Consequently, the Qingdao control command participants could integrate their behaviors with those of others on a moment-to-moment basis, thereby facilitating the containment of COVID-19.

**Conclusion**

This contribution reports an in-depth case study to uncover the mechanism underlying the effectiveness of a control command established by Qingdao municipality to contain COVID-19. COVID-19 has negatively influenced the daily life of citizens around the world, and governments have been struggling to manage it. Control commands were widely established by Chinese governments to better handle it. In our study, it has been shown that Qingdao control command achieved its goal of effectively containing the spread of COVID-19 around the whole city. In our case, we identified a configuration, namely, the combination of qualified team members, flexible organizing, task immersion of involved actors, high trust among involved actors, and high operational representation, that explains the effectiveness of Qingdao control command in managing COVID-19. We could not clearly establish the relationship between the other two conditions – time limits and role conflict resolution – and the effectiveness of temporary organizations. In the future, more studies should be conducted to further investigate this.

A key theoretical contribution of this study is that it provides a conceptual framework to analyze the effectiveness of temporary organizations in managing crises. Although scholars all agree that temporary organizations have the potential to resolve complex issues effectively, few studies have examined their underlying mechanism. As far as we know, our study is the first one to investigate this topic, and it has provided preliminary answers to it. Of course, the conditions identified in this contribution might not cover all relevant conditions. However, they could function as a starting point for authors to examine this issue in the future. Moreover, this contribution has enriched our understanding about crisis governance by the Chinese state,
specifically at the organizational level. Some studies have been conducted to uncover the unique features of Chinese crisis management from the institutional and political aspects (He et al., 2020). An exemplary study conducted by He et al. (2020) concluded that the Chinese style of crisis management is characterized primarily by three key features: political structure, mobilizational capacity, and state–society relations. These insights are useful for us to recognize the general institutional and political features of Chinese crisis management. However, the understanding of the functions and operations of the governments at the organizational level – hereby primarily referring to the control command – is still rather limited. Our study has remedied this gap through providing insights into Chinese governments’ crisis management at the organizational level.

Moreover, our study has some implications for practitioners to improve the effectiveness of temporary organizations in managing crises. First, it is necessary to manage the interactions of temporary organization participants. A possible option might be that temporary organizations could establish an effective communication and coordination mechanism, which would enable the participants to obtain sufficient representation information and build a trust relationship. This would help the organization to achieve its goals effectively. Second, it is suggested that sufficient political attention should be paid to temporary organizations through the direct engagement of top government leaders. This makes it possible for temporary organization participants to shield from unnecessary external disturbances. Third, the managers of temporary organizations should treat institutions seriously. Especially, it is necessary for them to balance the relationship between the rigidity and the flexibility of institutions (Li & Song, 2022). Institutions should not only guarantee that the involved participants focus their attention on task accomplishment, but also leave some room for their discretion and improvisation.

Limitations on the effectiveness of temporary organizations should also be borne in mind. Several of our respondents suggested that the municipality should establish a permanent control command for addressing crises, arguing that a temporary control command is not effective in managing crises. However, establishing a permanent control command may involve substantial time, energy, and other costs. It is still difficult to evaluate the investments involved in the management of COVID-19. However, it could be a topic to be further investigated in the future. Moreover, as suggested above, in the Chinese context, containing the spread of COVID-19 has been depicted as a war between the virus and mankind. As a result, the control command studied was so focused on its goal that it inadvertently created other problems, such as economic losses for private companies, working pressures for government officials and doctors involved, quality of life for people during lockdowns, and ensuring non-COVID patients’ access to healthcare and people’s basic needs. This means that the effectiveness of temporary organizations in achieving their predefined goal might come at the costs of other social values. Moreover, the application of the control command approach in China might lead to some unwanted or unintended consequences. One such consequence is that it has strengthened a pre-existing techno-authoritarian project with the aim of prevention and control of threats to both public health and public order.
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Last but not least, our case is representative, as all control commands established by Chinese local governments share a more or less similar institutional logic. Conclusions drawn in this contribution could be generalized to them. The reason is that our study relates mainly to the control command itself, and our primary interest lies in its personnel, organizational, and institutional dimensions. All control commands around China have the same functional and operational features, and our conclusions could shed light on them. Some other attributes, such as wealth, leadership, the level of development, and political, environmental, and culture features, might also influence the effectiveness of control commands in fighting COVID-19 in different cities. More studies should be conducted to further examine how these conditions relate to the effectiveness of temporary organizations in the future. Moreover, the case we studied is essentially a creeping crisis, that is, a crisis that came slowly and left slowly (Boin et al., 2020). This implies that our conclusions might not be generalizable to other crisis situations, such as earthquakes, floods, or typhoons. Furthermore, some limitations regarding our data should be borne in mind. Although we succeeded in conducting interviews with officials involved in Qingdao control command, the number of our respondents was still limited. Also, the social desirability bias issue might arise in our study; our respondents mostly tended to make positive comments about their colleagues in the control command especially in face of crises situations. Our study is preliminary however, and more in-depth studies should be conducted by authors in the future to investigate this topic.

Appendix 1

| Interviewee list |
|------------------|
| Home organization | Position | Affiliated groups in control command | Interview date |
| 1 Health Commission of Qingdao municipality | Director | Living supplies and medical supplies group | April 2020 |
| 2 Health Commission of Qingdao municipality | Director | Living supplies and medical supplies group | April 2020 |
| 3 Health Commission of Qingdao municipality | Director | Living supplies and medical supplies group | April 2020 |
| 4 Health Commission of Qingdao municipality | Staff | Living supplies and medical supplies group | April 2020 |
| 5 Hospital | Section Chief | Living supplies and medical supplies group | April 2020 |
| 6 Hospital | Staff | Living supplies and medical supplies group | April 2020 |
| 7 Red Cross of Qingdao | Director | Living supplies and medical supplies group (especially in managing charitable donation issues) | April 2020 |
| 8 The Development and Reform Commission of Qingdao municipality | Deputy Director | Materials and medical security group (focusing on coordination) | April 2020 |
| 9 Health Commission of Qingdao municipality | Director | Office of the control command | April 2020 |
### Interviewee list

| Home organization | Position | Affiliated groups in control command | Interview date |
|-------------------|----------|-------------------------------------|----------------|
| 10 Health Commission of Qingdao municipality | Deputy Director | Office of the control command | April 2020 |
| 11 Health Commission of Qingdao municipality | Deputy Director | Office of the control command | May 2020 |
| 12 Health Commission of Qingdao municipality | Deputy Director | Office of the control command | May 2020 |
| 13 Health Commission of Qingdao municipality | Deputy Director | Office of the control command | May 2020 |
| 14 Health Commission of Qingdao municipality | Deputy Director of Department | Office of the control command | May 2020 |
| 15 Shandong Provincial Party Committee Office | Director | Office of the control command | May 2020 |
| 16 Health Commission of Qingdao municipality | Deputy Director | Pandemic prevention and treatment group | May 2020 |
| 17 Hospital | Vice President | Pandemic prevention and treatment group | May 2020 |
| 18 Hospital | Director of Department | Pandemic prevention and treatment group | May 2020 |
| 19 Health Commission of Qingdao municipality | Director | Social management and visit group | May 2020 |
| 20 Customs of Qingdao | Deputy Director | Airport management group | May 2020 |
| 21 Public transport bureau of Qingdao | Deputy Director | Transport management group | May 2020 |
| 22 Public transport bureau of Qingdao | Deputy Director of Department | Transport management group | May 2020 |

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### Compliance with Ethical Standards

**Conflict of Interest** None.

**Informed Consent** None.

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