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2 Deep compliance with COVID-19 safety measures

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4 **Creating a safe haven during the crisis: How organizations can achieve deep compliance**  
5 **with COVID-19 safety measures in the hospitality industry**

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28

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33 Ethical Approval

34 All procedures performed in studies involving human participants were in accordance with  
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37

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39 Informed consent was obtained from all individual participants included in the study.

40

41

## Abstract

42 The COVID-19 health crisis has engendered a set of additional health and safety regulations  
43 and procedures (e.g. social distancing) to the hospitality industry. The purpose of this paper is  
44 to explore in-depth how organizations can facilitate employees' deep compliance with these  
45 procedures. Employing an instrumental case-study approach, we collected multi-level  
46 interview data and archival data in a small-medium sized restaurant in China. The findings  
47 reveal that employees' deep compliance with safety procedures includes a four-stage  
48 psychological process, and this process is underpinned by both management safety practices  
49 and organizational crisis strategies. As the hospitality industry starts to exit lockdown and  
50 ramp up operations, this study offers theoretical and practical insights on how organizations  
51 in hospitality can protect the health and safety of their employees and the broader  
52 community.

53 *Keywords:* COVID-19, deep compliance, management commitment to safety, crisis strategy

## 54 1. Introduction

55 The COVID-19 pandemic has significantly disrupted the hospitality and tourism sectors  
56 around the globe, forcing widespread closures and strict requirements on trade due to the risk  
57 of infection and even death for some vulnerable segments of the community (Nicola et al.,  
58 2020; Rivera, 2020). Several factors are linked to why hospitality is highly susceptible to this  
59 kind of health-related crisis - high volume of patrons, large staff work teams, exposure to  
60 intra- and international travelers, the potential for contagion through cross-contamination, and  
61 multiple pathogen delivery mechanisms (e.g., surfaces, cutlery and crockery, food; Leung and  
62 Lam, 2004). As the world emerges from lockdown, hospitality remains a high-risk industry  
63 due to the threat of a 'second wave' (Xu and Li, 2020), and the organizations in this industry  
64 must learn how to conduct business, while remaining safe at the same time. Failure to comply  
65 with COVID-19 safety measures might endanger the health and safety of frontline staff, the  
66 viability of the business, and the general public.

67 This research is set out to understand how hospitality organizations might facilitate  
68 employee compliance with COVID-19 safety requirements and protocols in response to this  
69 unprecedented health crisis. However, safety research in hospitality mostly focused on food  
70 safety rather than employee safety, such as the factors influencing the implementation of food  
71 safety measures (e.g., Guchait et al., 2016; Harris et al., 2017). The existing hospitality crisis  
72 management literature, on the other hand, tends to focus more on organizational response  
73 practices in relation to marketing and organization maintenance (e.g., Israeli & Reichel, 2003;  
74 Israeli et al., 2011), without a specific focus on the health and wellbeing of employees. There  
75 were a few exceptions, where a few studies examined hotel and restaurants' response to the  
76 Sudden Acute Respiratory Syndrome (SARS) in 2003. These studies provided a vivid  
77 account of the susceptibility and 'brittleness' of the hospitality industry to health-related  
78 threats. While they also briefly discussed the safety measures put in place, such as the  
79 acquisition of protective equipment and the enforcement of environmental hygiene (e.g.,  
80 Chien & Law, 2003; Tse et al., 2006), the descriptive nature of these studies means that we  
81 have little theoretical insight on how organizations could effectively respond to a global  
82 pandemic.

83 Therefore, we draw on broader organizational safety research to guide our research  
84 inquiry. Particularly, we follow the theoretical framework put forth by Hu and colleagues (Hu  
85 et al., 2020), which differentiates between 'deep' (mindful awareness and careful application  
86 of safety procedures) and 'surface' compliance (demonstrating compliance with minimal  
87 effort). Building on this work, we seek to explore the unique psychological mechanisms that  
88 lead to a deep approach to compliance, which we found evolved over the course of the  
89 pandemic in the studied restaurants. To further explain the contributing contextual factor of  
90 deep compliance, we propose that employees' deep compliance is created under the influence  
91 of management safety practices, as well as the organization's overarching crisis response  
92 strategies. In doing so, our study not only contributes to the theoretical building of deep  
93 compliance but also provides practical insights for managers in the hospitality industry to  
94 effectively respond to COVID-19 pandemic.

95 The paper begins by reviewing literature in safety compliance and safety research,  
96 followed by the method. The findings are discussed in line with the key constructs and  
97 relationships depicted in the conceptual model. Finally, theoretical and practical implications  
98 are provided.

99

## 100 2. Literature Review

101 *2.1. Safety research in the hospitality context*

102 In the hospitality context, particularly restaurants, most safety research has focused on  
103 food handlers and food safety because restaurants have been labelled as one of the most  
104 frequent settings for foodborne illness outbreaks (Murphy et al., 2011). Given the importance  
105 of food safety, significant research attention has been allocated to the factors contributing to  
106 or inhibiting employees' compliance with food safety. On the whole, there are three common  
107 threads in food safety research. The first thread focusses on external factors, such as  
108 mandatory food safety training and certification specified in Food Codes or local statutes  
109 (Murphy et al., 2011). The second thread of our research has taken the lens of organizations  
110 and identified a list of organizational factors that can facilitate food safety compliance, such  
111 as organizational support (Guchait et al. 2016), leadership styles (Lee et al., 2013), and  
112 organizational food safety climate (Boeck et la., 2017). In comparison, drawing on  
113 motivational theory, the third thread of research highlights that organizational drivers alone  
114 are not enough to lead to food safety. Thus, this line of research has shifted focus to  
115 employees and examines how employees' risk perception (Griffith et al., 2010) or motivation  
116 (Harris et al., 2017) shapes their food safety compliance. Notably, in Harris et al.'s (2017)  
117 research, they highlighted that when employees perceive intrinsic values of complying with  
118 safety procedures, they are more likely to follow food sanitation regulations.

119 Although the findings from these studies have advanced the knowledge of food handlers'  
120 compliance behavior in terms of food safety, they have left a significant gap in another aspect  
121 of organization safety - employee safety, especially service employees who have close  
122 contact with customers. Safety literature has established that employee safety is important to  
123 organizations because it directly contributes to reductions in injuries and associated costs  
124 (Christian et al., 2009). In comparison, failing to establish employee safety may ruin the  
125 employee-organization relationship, tarnish the organization's reputation, and in very serious  
126 cases, result in lawsuits and bankruptcy. In the context of COVID-19, except for managing  
127 food safety, it is critical and essential for organizations to closely monitor employee safety,  
128 because protecting employees from infection not only demonstrates the organization's  
129 responsibility to help contain the spread of the virus, but also determines the survival of the  
130 organization during this crisis. When employees are infected, restaurants may end up in  
131 bankruptcy or foreclosure, as evident in extensive anecdotal evidence, showing that  
132 worldwide, many restaurants have temporarily or even permanently closed down after one or  
133 more employees tested positive for coronavirus. Therefore, it is essential to expand the scope  
134 of safety research in the hospitality context by examining how to promote employee safety  
135 across the organization.

136 *2.2 Safety compliance*

137 Safety compliance refers to core safety tasks individuals carry out to maintain workplace  
138 safety (Griffin and Neal, 2000). These include a set of behaviors that aim to meet an  
139 organization's safety requirements, such as compliance with the organization's safety rules  
140 and procedures, as well as wearing personal protective equipment. Griffin and Neal (2000)  
141 proposed that safety compliance is influenced by an individual's safety knowledge, safety  
142 skills and safety motivation, which in turn are influenced by the organization's safety climate.  
143 Recent research has focused on not only *whether* people comply with safety procedures, but  
144 *how* they comply with procedures. This line of research is motivated by the finding that  
145 employees might comply with safety procedures for the mere sake of compliance, such that  
146 compliance with safety procedures becomes a ritual or superficial exercise, without furthering  
147 the objective of working safely (Hopkins, 2006). Similarly, the recent study by Rae et al.,  
148 (2019) on the work of safety professionals also differentiated compliance activities into safety

149 work (demonstrating compliance through audits and checklists) and the safety of work (risk  
150 reduction within the physical safety of work).

151 Building on these existing studies, Hu et al., (2020) reconceptualized safety compliance by  
152 forwarding the concepts of deep compliance and surface compliance to contrast different  
153 ways workers can comply with safety rules and procedures. Employees engage in deep  
154 compliance with the intention to maintain workplace safety, and invest the effort required for  
155 enacting risk management strategies expected to accomplish organizationally-desired safety  
156 outcomes. In contrast, employees engage in surface compliance with the intention to  
157 minimally meet organizational requirements and therefore direct their effort and attention  
158 towards demonstrating basic compliance. The differentiation between deep and surface  
159 compliance provides a new avenue for safety compliance research, particularly given the  
160 preliminary evidence, which indicates that whereas deep compliance can reduce accidents  
161 and injuries, surface compliance contributes to increased occurrence of adverse safety events  
162 (Hu et al., 2020).

163 In terms of situational factors contributing to safety compliance, previous safety research  
164 has provided preliminary evidence that management commitment to safety can promote  
165 deep compliance (Hu et al., 2020). It suggests that when employees perceive that  
166 management are genuinely concerned about safety, they are more motivated to behave safely  
167 (Christian et al., 2009). The outbreak of COVID-19 has introduced a list of new safety rules  
168 and procedures in addition to existing procedures as discussed in the food safety literature  
169 (e.g., hygiene). A pressing question is how organizations could facilitate deep compliance  
170 with COVID-19 safety rules and procedures to protect workers from being infected and stop  
171 possible transmission during service encounters. Although management commitment to  
172 safety has been identified as an organizational factor that can drive deep compliance (e.g., Hu  
173 et al., 2020), little is known about the underlying psychological process, and how  
174 management can create perceptions of commitment to safety among employees. Also, the  
175 mechanism that catalyzes and activates deep compliance in the context of a global health  
176 crisis needs to be addressed further. In the following empirical section, we explore these  
177 questions in the context of a case study conducted with restaurants in China.

178

### 179 **3. The present study**

180 As the main aim of the study is to analyze how deep compliance with COVID-19 safety  
181 measures can be fostered in the hospitality industry, we adopt a case study approach to  
182 develop a rich and contextualized description of the focal phenomenon. We applied an  
183 instrumental case study for primary data collection and analysis (Eisenhardt, 1989).  
184 Specifically, with this research approach, we are able to provide an in-depth evaluation of an  
185 important topic (e.g., safety compliance in the hospitality industry) that has many questions  
186 waiting to be answered (e.g., how do workers comply, what encourages workers to comply).  
187 Also, this method enables researchers to delve into the internal processes behind the  
188 phenomenon of interest, and develop a rich understanding of the experience and responses of  
189 top managers and employees in terms of deep compliance throughout COVID-19.

190 Based on purposive sampling criteria (Patton, 1990), our case is a small-medium sized  
191 private restaurant group in northern China (to protect company anonymity, henceforth labeled  
192 “ABC”). In China, most restaurants have gradually reopened since April 2020 (Clay, 2020),  
193 while the rest of the world was still in the lockdown phase. The Chinese government has  
194 introduced strict COVID-19 health and safety requirements, and the experience of restaurants  
195 implementing these new measures may offer valuable insights for restaurants in other

196 regions. We chose ABC because it has managed to survive COVID-19 without massive  
197 layoffs or restructuring, and was operating at full capacity at the time of the study. In  
198 response to COVID-19, ABC management implemented a number of new health and safety  
199 procedures and practices. Thus, the case firm provides us with a suitable avenue to examine  
200 employees' deep compliance and management safety strategies and behaviors. Practically,  
201 the case firm allowed us to interview the owner, senior managers, team leaders, and frontline  
202 employees. This approach serves the benefit of providing greater richness to the single case  
203 and offers multiple perspectives in explaining the organization's response to the focal  
204 phenomena, as well as helping to cross-validate the data. ABC has one full-service restaurant  
205 with around 100 employees and two fast-food stores with around 20 employees in each. The  
206 variety in sizes enables a comparison within the organization, adding more layers and  
207 richness to the data. We now turn to the details of our research method.

208

## 209 **4. Methodology**

### 210 *4.1. Background of the case company*

211 ABC was founded in 1999 and is located in north China. The full-service restaurant  
212 (henceforth "ABC-R") is run by a general manager, but the owner still participates in  
213 strategy-level decisions. Its main business includes banquet service, fine-dining service, and a  
214 specialty hotpot. The annual revenue as of 2019 was about 13 million yuan (\$2 million). Two  
215 fast-food stores (hereinafter "ABC-F1" and "ABC-F2") were opened in 2010 and 2011 as a  
216 variation of the full-service restaurant, which has a good reputation in the local community  
217 with high-quality cheap eats. In terms of safety, the company has a relatively good safety  
218 record and a strong safety culture as reported by the management and employees. It has no  
219 major health and safety incidents since its opening. Due to COVID-19, ABC-R closed its  
220 business on 26 January 2020, while two fast-food stores closed on 24 January and 22 January  
221 2020 respectively (See Appendix for a summary of the COVID-19 timeline).

### 222 *4.2. Data collection*

223 The primary data collection method of this research was in-depth semi-structured  
224 interviews with both employees and the management. The choice of this data collection  
225 approach enabled participants from different levels and roles to share their perceptions, thus  
226 providing a rich database for analysis. The number of employee participants being  
227 interviewed was determined by data saturation when no new themes emerged during iterative  
228 data analysis (Thomson, 2010). Specifically, a total of 14 interviews were conducted,  
229 including seven interviews with frontline employees, two interviews with line managers, four  
230 interviews with senior management, and one interview with the owner. To ensure the privacy,  
231 we discussed with the management team to ensure each participant was able to participate in  
232 a private manner. During the interview, employees participants were explicitly made aware of  
233 that the interviews are for research purpose only, and their responses would in no way impact  
234 the restaurants or themselves. All interviews were conducted by phone call or WeChat voice  
235 call during May 2020. The duration of the interviews was 30-60 mins. Interviews were  
236 conducted in Chinese, and they were digitally recorded and subsequently transcribed  
237 verbatim to facilitate detailed analysis (Creswell and Creswell, 2017). No incentives were  
238 offered for participation. Background information about the informants, such as age, job title,  
239 education, and tenure, were also collected (Table 1).

240

## 241 **Table 1**

242 Detailed list of informants.

Informants	Job title	Gender	Education level	Age range	Number of years working for ABC
<i>Executive level</i>					
1	Founder and owner	M	Secondary/high school	45–59	21
2	General manager (ABC-R)	M	Secondary/high school	45–59	10
3	Service manager(ABC-R)	F	Secondary/high school	35–44	14
4	Store manager (ABC-F1)	F	Secondary/high school	35–44	3
5	Store manager (ABC-F2)	F	Secondary/high school	35–44	8
<i>Supervisory level</i>					
6	Service leader (dining lobby, ABC-R)	F	Secondary/high school	35–44	9
7	Service leader (private dining room, ABC-R)	F	Secondary/high school	35–44	8
<i>General level</i>					
8	Reception attendant (ABC-R)	F	Secondary/high school	25–34	2
9	Service attendant (ABC-R)	F	Secondary/high school	35–44	0.5
10	Service attendant (ABC-R)	F	Secondary/high school	35–44	2
11	Cook (ABC-F1)	F	Less than secondary/high school	45–59	1
12	Service attendant (ABC-F1)	F	Secondary/high school	45–59	9
13	Service attendant (ABC-F2)	F	Less than secondary/high school	25–34	4
14	Service attendant (ABC-F2)	F	Less than secondary/high school	35–44	3

243 *Note:* ABC-R refers to the full-service restaurant. ABC-F1 refers to fast-food store 1 and ABC-F2 refers to fast-  
 244 food store 2.  
 245

246 Two separate interview protocols were designed to examine compliance with COVID-  
 247 safety measures from management and employees, respectively. In both cases, the interviews  
 248 start by providing informants with an overview of the research, such as the purpose, the  
 249 expected length of the interviews, and the confidentiality and anonymity. The background  
 250 information (e.g., age, tenure, position, role) was also collected in this stage.

251 The management protocol was divided into three sections. The informants were first asked  
 252 about the timeline throughout the COVID-19 pandemic, as well as its perceived impacts on  
 253 the business. The second section focused on the implementation of specific safety and health  
 254 measures and employee responses to newly implemented measures. The closing part included  
 255 the perceived effectiveness of these measures.

256 In the employee protocol, we started with a timeline question and another question about  
 257 concerns, specifically: “what was your biggest concern since the outbreak of COVID-19”.  
 258 The second section focused on their experience with the new COVID-19 procedures. The

259 third section included an additional question related to the improvements the organization  
260 would make and what measures they think should be preserved after COVID-19.

261 In addition to interviews, we also collected and reviewed archival data, including the  
262 company's social media posts on WeChat official account and posts in their employees'  
263 group chat. These supplementary materials provide us with additional information on their  
264 COVID-19 safety measures (Appendix) and enables us further to triangulate the data (Yin,  
265 2014).

#### 266 4.3. Data analysis

267 Thematic content analysis was employed to analyze the interview data (Creswell and  
268 Creswell, 2017). A combination of inductive and deductive approaches was used to guide the  
269 coding process. As specified by Yin (1994), the deductive approach used in a case study  
270 provides a starting point by analyzing and comparing with previously established theory and  
271 empirical findings. The inductive approach enables the researcher to have an open mind in  
272 identifying new patterns from data. Specifically, a three-step analytical process was  
273 undertaken. First, each interview transcript was read thoroughly for open coding. Then,  
274 themes and categories were identified by analyzing and comparing the responses of  
275 participants. At the final step, perspectives of the participants at different levels of the  
276 organization (i.e., management and employees) about coping measures were compared and  
277 contrasted. These comparisons, in turn, helped to validate the information obtained from each  
278 participant at different organizational levels, such as employees' response to the measures  
279 introduced by the management. In particular, the data analysis process included three stages.  
280 In the initial stage, collected data were transcribed and translated; followed by the coding  
281 stage, where "Nodes" were created in by using NVivo 12 by the first and second author  
282 independently. Then, the codes were cross-checked by the research team. The validated  
283 information was then used for data interpretation and presentation stage, where the sub-  
284 themes were generated by categorizing and grouping the relevant codes.

285

### 286 5. Findings

287 To illustrate how deep compliance with COVID-19 safety measures can be fostered in the  
288 hospitality industry, we present our finding in three sections: 1) employee deep compliance 2)  
289 management COVID-19 safety practice and 3) organizational strategies in response to  
290 COVID-19.

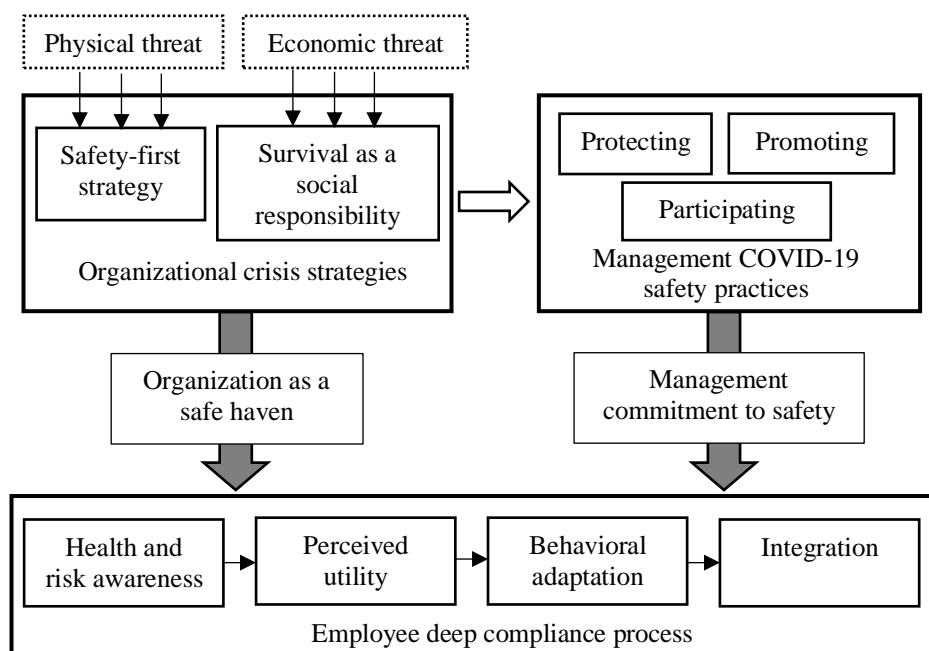
291 As depicted in Figure 1, our findings show that within individuals, employees experience  
292 deep compliance as a four-stage psychological process. Individuals' engagement in deep  
293 compliance started with *heightened risk and health awareness*. Such awareness prompts  
294 *perceived utility value* of COVID-19 safety measures, which in turn motivate *behavioral*  
295 *adaptation*. Prolonged use then increases an individual's confidence in the effectiveness of  
296 the new measures, prompting the *integration* of these measures into one's work routine and  
297 safety practice.

298 This individual deep compliance process is heavily influenced and facilitated by three  
299 management-level COVID-19 safety practices: 1) prioritization of *protection* of the health  
300 and safety of employees, 2) relentless *promotion* of the importance of health and safety in the  
301 context of a pandemic, and 3) active *participation* in the newly established safety routines  
302 and activities. Through a combination of these management practices, management  
303 demonstrates a genuine commitment to workplace health and safety to employees.



304 Our finding further reveals that management safety practices and employees' deep  
 305 compliance are both embedded in and shaped by the broader organizational and  
 306 environmental context. Particularly, we identified two salient environmental threats to the  
 307 organization and its employees: the physical threat presented by COVID-19, as well as the  
 308 economic impact on the hospitality industry, which threatens the viability of the organization  
 309 and job insecurity for its employees. Under these threats, the organization responds by  
 310 serving as *a safe haven* for the employees. In response to the physical threat, the organization  
 311 adopted a *safety-first strategy*, putting other organizational priorities, including financial and  
 312 operational goals to a second place. In response to the economic threat, the organization  
 313 pivoted its core mission, emphasizing on the *survival of the business as a social*  
 314 *responsibility*; that is, even though not financially viable, the organization opens in order to  
 315 provide employment opportunities to its staff members. In doing so, the organization is able  
 316 to meet the physical and job security needs of employees at the time of crisis, creating a solid  
 317 relationship basis for cooperative safety responses from the workforce during a tough time.

318



319 **Fig. 1.** Summary of deep compliance with COVID-19 safety measures.

320

321 *5.1 Individual deep compliance*

322 As depicted in Figure 1, deep compliance consists of four stages: health and risk  
 323 awareness, perceived utility, behavioral adaptation, and integration.

324 *5.1.1 Health and risk awareness*

325 Increased health and risk awareness constitute the initial stage of the deep compliance  
 326 process. As a few managers mentioned, increased health and safety awareness is the primary  
 327 change since the outbreak of a pandemic. In our findings, it is evident that employees became  
 328 more aware of the health threat of COVID-19 and showed a heightened sense of health and  
 329 risk awareness, for example, “*We are clear about the severity of this virus. In the restaurant*  
 330 *industry, we get in contact with a lot of people; there is a huge customer flow, so we must be*  
 331 *very cautious and raise our risk awareness.*” Some believed the perceived risk extends to  
 332 their family members: “*I have other family members at home, after all, working at the*

333 *restaurants we will be in touch with so many people, and when we go home, we are in close*  
334 *contact with our family members.”*

#### 335 *5.1.2 Perceived utility*

336 The heightened risk awareness phase further contributed to the perceived utility value of  
337 newly introduced COVID-19 safety measures. The utility value of safety procedures plays a  
338 major role in sustaining compliance behavior (Hu et al., 2018). Our findings reveal that  
339 growing considerations have been made to one’s own health and safety, as well as the health  
340 and safety of other organizational members and customers. As evidenced in the employee  
341 interviews, all of them confirmed the utility of the introduced safety measures. For example,  
342 when asked whether the new COVID-19 safety measures created extra work, one worker  
343 responded: *“I won’t see them in this way. They are all essential and useful measures. The*  
344 *workload is not a big deal. This is for our own safety, and we also need to consider others, so*  
345 *we need to carry out these measures really well.”*

346 Besides, many perceived that they have a moral or social responsibility to protect the  
347 health and safety of the customers who come to the restaurants. *“True, they (COVID-safety*  
348 *measures) require more work. But it’s good for our customers, for everyone. We are all in*  
349 *this together. We need to understand each other. During a pandemic, I think being strict is*  
350 *good.”*

351 Such responsibility is not only limited to reducing physical risk for the customers but also  
352 include the need to create a perception of safety for the customers. As a team leader  
353 acknowledged:

354 *“The customers would see it as a good thing too. At least we are offering them certain*  
355 *protections. If someone who’s not feeling well comes in, it will make customers feel*  
356 *unsafe. We’ve had a customer who asked us: ‘Is it safe in your restaurant? Should I be*  
357 *worried?’ We can say to them, ‘you can be rest assured to dine in.’”*

#### 358 *5.1.3 Behavioral adaptation*

359 As workers comply with safety measures on a daily basis, many begin to become  
360 accustomed to them and adapt their behaviors accordingly. As one worker put it: *“When we*  
361 *come to work, we are used to all safety measures. You make all the changes naturally. When*  
362 *we change into our uniform, the supervisors distribute the face masks, and we will put on the*  
363 *face masks without thinking. It is all about habit. We rarely forget them... Especially on*  
364 *handwashing, we have never seen this before. Now all staff members wash their hands really*  
365 *well before starting on the tasks. This is really necessary.”*

366 Employees’ behavioral adaptation has been confirmed by the managers and team leaders  
367 who spoke very highly about how cooperative the workforce has been in complying with all  
368 new COVID-19 safety measures. *“It’s basically 100% for all the safety procedures,*  
369 *including cleaning the utensils, sanitization, the staff are doing really well.”* This behavioral  
370 adaptation has also been observed during the period when the staff were stood down and  
371 were staying at home. As a manager commented, *“Every day at 8 pm, they uploaded their*  
372 *travel history and temperature on time. No single one of them sent anything nonsense. They*  
373 *even took a picture of the thermometer. Very cooperative, no one is selfish.”*

#### 374 *5.1.4 Integration*

375 As staff members adapted their behaviors by complying with new COVID-19 safety  
376 measures, it became apparent that such adaptation leads to the final stage of deep compliance  
377 – integration with existing work routines. As one manager recalled, the pandemic really  
378 helped them to improve health and safety management in general. There is a shared

379 consensus that many of the new safety measures should be in place regardless of whether  
380 there is a pandemic. Many have seen how these new measures directly contribute to other  
381 organizational priorities, including food safety, provision of high-quality customer service  
382 and fulfilment of responsibility to reduce the spread of transmissible diseases such as  
383 common cold and flu. Overall, with time, the managers and workers became more aware of  
384 the effectiveness and additional benefits of the new COVID-19 safety measures. Long-term  
385 maintenance of these measures and their integration into the existing safety management  
386 system is on the rise.

## 387 *5.2 Management commitment to safety*

388 Moving to the management level, our findings offered evidence of how managers  
389 demonstrate their commitment to safety, particularly during times of crisis. As an essential  
390 dimension of safety climate, management commitment to safety is the most influential  
391 predictor of employee safety behavior (Zohar, 2014). Under the COVID-19 situation, we  
392 found that management commitment to safety is demonstrated by three management-level  
393 COVID-19 safety practices: protecting, promoting, and participating. Each of these practices  
394 is explained below.

### 395 *5.2.1 Protecting*

396 Protection reflects managers' significant efforts in protecting their employees from being  
397 infected by coronavirus throughout the crisis. It involves the provision of safety resources,  
398 making important business decisions in response to safety concerns, as well as designing  
399 employee-oriented protective measures.

400 We documented that protection of staff members started with management's provision of  
401 face masks before the lockdown of Wuhan. As one senior manager noted: *"I came to know  
402 about the outbreak in Wuhan through my friend there. Though my city was not in lockdown  
403 just yet, I felt how horrible it could get. I then started to pile up the face masks and distribute  
404 them to all employees."*

405 As the local cases began to emerge, the owner made the decision to shut down the  
406 restaurants even before the government's instruction to do so. He explained his rationale as  
407 below:

408 *"It became serious at the time; we suddenly had more than a dozen of cases here. If there  
409 were confirmed cases in our restaurants, all staff members would be put on self-isolation.  
410 We don't really have resources for that... We were trying to mitigate the risk, by  
411 deprioritizing financial considerations, but offering more safety for our staff. They need to  
412 go home. Because we are in the restaurant industry, people are coming from all different  
413 places, who knows we might have someone from Wuhan or other affected regions. We  
414 need to protect our staff."*

415 The decision was understood and appreciated by the frontline employees, *"At the time  
416 when we began to panic, our restaurant had already decided to shut down temporarily. They  
417 (owner and managers) were concerned about our safety, so they shut down the business, let  
418 everyone go home and take a break."*

419 During the shutdown period, store managers constantly checked in on employees' health  
420 through WeChat (a Chinese messaging app). As indicated by the managers, they set up a  
421 WeChat group, through which managers can send through self-protection advice to staff  
422 members and urge them to take a temperature check every day and stay alert to COVID-19  
423 symptoms.

424 When the restaurants reopened, the management also implemented strict measures to  
425 protect the safety of staff members, including body temperature check for all working staff  
426 members, the cleaning and sanitation of all utensils and work surfaces (see Appendix for a  
427 full list of COVID-19 safety measures at ABC). The workers described those safety measures  
428 as comprehensive, capturing “all aspects” of work. As one worker described, she always feels  
429 “confident” in the restaurants: *“Ever since I came here, I can see managers’ concern about*  
430 *employees, with good protective measures in place”*.

431 Furthermore, the sense of protection seems to be prioritized over the organization’s  
432 business goals, with short-term gains deprioritized relative to long-term losses: *“We do more*  
433 *than 100% for our staff safety, as long as one customer show symptoms of coughing or high*  
434 *temperature, I will stop him/her from entering the store immediately. This is what I must do. I*  
435 *can’t afford to have one customer to influence my whole team.”*

### 436 5.2.2. Promoting

437 Promoting includes management’s relentless efforts in emphasizing the importance of  
438 personal and work safety. As one senior manager acknowledged, health and safety can only  
439 be achieved when employees are interested and motivated to protect the safety of themselves  
440 and others. To achieve this goal, managers have introduced additional safety meetings that  
441 focus on self-protection awareness and communicate the expectations and safety performance  
442 standards. For example, one manager mentioned, *“Before COVID-19, we only had pre-start*  
443 *meetings, but now we add two more post-shift meetings. In pre-start meetings, as a manager,*  
444 *I will communicate with staff about every aspect of COVID-19, such as the latest updates on*  
445 *confirmed cases, the newest health advice and requirements from health professionals or*  
446 *government, and the specific COVID-19 safety measures in the restaurants. In post-shift*  
447 *meetings, I will give a brief review on their safety performance, and point out the particular*  
448 *areas we need to pay more attention to, and more importantly, to tell them why we need to do*  
449 *so.”*

450 In addition to daily meetings, a series of staff training on COVID-19 took place in this  
451 organization to inform staff about the pandemic. *“We have held multiple training sessions for*  
452 *our staff. We talked about the current situation of the pandemic and the scientific ways to*  
453 *contain its spread at the workplace.”*

454 Several employees recounted that their managers and supervisors often speak about self-  
455 protection and the protection of customers, during daily meetings, training, and even during  
456 staff lunch. *“They (managers) always remind us to stay alert, to wear masks and to protect*  
457 *ourselves and others from the virus.”* Similar to protection, constantly promoting the  
458 importance of safety by management has received positive feedback from the employees and  
459 increases their safety motivation.

### 460 5.2.3 Participating

461 Participation includes two specific aspects; one is a bottom-up approach where managers  
462 actively involve employees to work on COVID-19 related measures; the other is a top-down  
463 approach where managers regularly check and review employees’ compliance with COVID-  
464 19 safety practices.

465 To ensure the smooth implementation of COVID-19 safety measures, the managers  
466 actively participated in safety by working together with employees. One manager described  
467 how she worked with employees to develop the registration form required by government  
468 regulations:

469       *“When the staff came to work, we prepared a register book to record their names, their*  
470 *family of origin, their travel history, and whether they have any COVID-19 symptoms.*  
471 *This book is a group idea.”* She also mentioned how they came up with cleaning and  
472 sanitation practices: *“Our staff members were sitting together, discussing how we do*  
473 *sanitization, how do we use the disinfectants, how do we use ethanol, etc. It’s all coming*  
474 *from our staff”*. This is confirmed by one of the employee interviewees: *“It was my idea*  
475 *on the ratio of disinfectant and ethanol, I saw that on TV, and I brought it to the store*  
476 *manager, and we used that”*.

477       From our interviews, we can see that apart from the compulsory procedures, employees  
478 are welcome to participate in prevention work. Everybody could speak up or share their  
479 experiences. As long as it helps with containing the spread of the virus, any idea from the  
480 employees is encouraged and has been adopted.

481       In terms of the top-down approach, managers also participate in the safety routines by  
482 closely monitoring employees’ behaviors and conducting a safety check. *“We do the checks*  
483 *every day, including random checks.”* As one manager recounted, *“the staff are doing a*  
484 *great job, we didn’t find any signs of poor safety job”*. For employees who did not follow all  
485 protective measures, managers would give them constant reminders. As one employee  
486 shared, *“It’s getting warm recently, sometimes we wear the mask a bit lower. Our manager*  
487 *will remind us to wear it properly. She is very strict”*. As another employee echoed:  
488 *“Particularly when it comes to facing customers, our leader will keep monitoring whether we*  
489 *wear masks”*. Such safety checks are not constrained to the workplace, as one manager  
490 mentioned: *“We also check whether they follow the self-protection measures during the*  
491 *commute to work and make sure those who take the bus take precaution. I check with them*  
492 *every day.”*

493       From the perspective of employees, these random safety-checks are essential. For  
494 example, when asking about wearing a face mask, one worker commented that they were not  
495 bothered, because by having these checks, they feel their organization is genuinely concerned  
496 about their health and safety, which in turn alleviates their concerns and makes them feel  
497 safer at the workplace.

### 498 *5.3 Organizational threats and strategies*

#### 499 *5.3.1 The external threats*

500       As specified in systems theory, organizations are not operating in a vacuum but shaped by  
501 various factors both internal and external (Katz and Kahn, 1978). In addition to the elements  
502 that are within the organization (e.g., management commitment), external elements (e.g.,  
503 competition, technology disruption, and natural disasters) and the organization’s responses to  
504 these factors, are also important (Tse et al., 2006). Our findings show that the public health  
505 hazard of COVID-19 is one such external element, and it has placed dual threats on the  
506 organization and its employees. One threat is related to physical safety. Three interviewed  
507 employees explicitly expressed their concern and fear about contracting the virus. As  
508 discussed in the health and risk awareness section, they attribute such threat to the  
509 characteristic of hospitality work: during service encounters employees are in contact with a  
510 large number of customers on a daily basis, and anyone of them could carry the virus or touch  
511 a contaminated surface.

512       The management was also concerned about how the virus might threaten the viability of  
513 the business: *“Everyone in China is super scared of this disease (i.e. COVID-19). If you do*  
514 *not take all the necessary protective measures, if there is a suspected case, or a real one,*

515 *your store will be doomed. It will be shut down (by the government), and we may not be able*  
516 *to recover in a short period. We in the senior management team all think along these lines.”*

517 Another major threat is related to the economic impact on the hospitality industry and job  
518 security. Since the outbreak of COVID-19, massive layoffs have begun in restaurants across  
519 the world (del Rio-Chanona et al., 2020). In the case firm, all managers and employees  
520 indicated that the industry had been hardest hit by this crisis, causing their ongoing anxiety  
521 over job security. The situation has further deteriorated as restaurant workers are generally  
522 depicted as low-skilled, temporary, and with a low entry barrier. Indeed, when we asked  
523 employees what their biggest concern since the outbreak of COVID-19 was, all of them  
524 ranked job insecurity as the primary concern, *“I feel I need this job, I don’t have other hopes.*  
525 *I count on this job to make some money to maintain myself.”*

526 Similarly, the management also understands how the hardship in the industry creates  
527 challenges for its employees: *“The economy is tough out there, jobs are very hard to come*  
528 *by. They (the staff members) cherish the work opportunities provided here. This is a labor-*  
529 *intensive industry, with low requirements of education and qualification. They are all from*  
530 *low socio-economic background.”*

### 531 5.3.2. Safety-first strategy

532 In response to the external threats, at the strategic level, the case firm has functioned as a  
533 safe haven for their employees by meeting their needs for physical safety and job security  
534 during the crisis.

535 Specifically, from the interview with the owner and senior management team, we found  
536 that they have adopted a safety-first strategy by placing an absolute priority on maintaining  
537 workplace health and safety during the pandemic, even at the cost of financial loss. For  
538 example, as mentioned above, the case restaurant was the first to voluntarily shut down in  
539 that region. Back then this is a tough decision, as it was Chinese New Year, the busiest time  
540 of the year for most restaurants to boost sales; however, the owner and senior management  
541 team decided to adopt the safety-first strategy by putting employees’ and customers’ safety  
542 ahead of business profits. As the owner explained,

543 *“It’s all about safety, not the organization’s profit. As long as everyone is healthy and*  
544 *well, I will be happy. I think we have done a better job than what the government could*  
545 *imagine. No one complained about anything or expressed dissatisfaction. We are all*  
546 *getting through this together. When we decided to shut down, then all of the employees*  
547 *supported this decision.”*

548 This is echoed by another senior manager: *“Facing such an unprecedented pandemic,*  
549 *despite some safety measures meaning huge losses to the organization, we are still willing to*  
550 *do so, because only by fighting the pandemic together, can we get back to normal sooner.*  
551 *This is our responsibility as a business. Early on, we had to destroy a lot of raw food*  
552 *material (because we decide to shutdown)—a massive loss. But we still did it, and we believe*  
553 *this is the right thing to do. I’ve talked to employees about this, and they felt the same.”*

554 It is the safety-first strategy that drives management to proactively take COVID-safe  
555 measures and safeguard employees’ physical health, promoting the importance of safety to its  
556 employees and actively participating in the daily safety routine.

### 557 5.3.3 Survival as a social responsibility

558 The second strategy is ‘survival as a social responsibility’. Recent research suggests that  
559 corporate social responsibility should also extend to internal stakeholders such as employees,  
560 to engage in activities that directly address employees’ personal and family needs that are

561 above and beyond legal requirements (Hu and Jiang, 2016; Shen and Zhu, 2011). As  
562 highlighted by the owner, in front of this crisis, working to provide job security is one of the  
563 most important goals of his firm so that employees can keep their jobs and support their  
564 families during this difficult time. *“Now to reopen is not financially viable, but for the sake of*  
565 *employees. We would be better off if we continue to shut down until the pandemic is over.*  
566 *However, while the organization would be safe in this way, our staff will be out of income*  
567 *and experience social instability. The livelihood of employees will be a huge issue. It’s more*  
568 *for taking social responsibility, not simply for the sake of the organization.”* He further  
569 explained that as long as the restaurant can stay open and meet the payroll, he and investors  
570 are willing to take the financial losses.

571 The dedication of management to keep jobs for employees has contributed to positive and  
572 cooperative responses from employees, which serve as the foundation for complying with  
573 additional safety requirements, which create a significantly larger workload. As one manager  
574 put,

575 *“In our organization, all staff members are able to keep their job. There are no pay cuts;*  
576 *all the benefits and rewards schemes remain the same. They are very appreciative that the*  
577 *business is willing to provide the same benefits and pay, even though the company is*  
578 *operating at a loss. They all appreciate that.”*

579 The findings from employees provide support for the above senior manager’s statement.  
580 *“As long as we get to keep the job, I am happy to do more for the restaurant. We are all in*  
581 *this difficult situation, the whole restaurant industry, because of the pandemic”.*

582 We also found that for some employees, the relationship between the organization and the  
583 employee goes beyond transactional exchange, but has a deeper root in how employees  
584 perceive the organization as their family. As the manager recalled, *“I think our employees*  
585 *love the restaurant as their own family, view their managers and co-workers as their*  
586 *extended family members. They tend to believe that if the restaurants need them to do this,*  
587 *they will do so and do it well. Because it’s a very special period of time, they become more*  
588 *compassionate. I have chatted with them many times, about the tough situation we are facing.*  
589 *And they all respond like ‘it is very hard for the business, we understand’. And I can tell they*  
590 *take greater ownership and try to contribute on their side.”* This is echoed by several  
591 employees. For example:

592 *“The business is tough now; we all should help. When it recovers, the organization will*  
593 *not forget us. We have worked here for so many years. We are like a family. The future*  
594 *will be brighter; now we just need to understand each other... I think I understand*  
595 *managers. Since I am here, I treat the restaurant as my family, and we all face this*  
596 *hardship together. If someone goes down, the whole family should be with them; it feels*  
597 *much better than facing this by yourself.”*

598

## 599 **6. Discussion and conclusion**

600 As the world starts to reopen after the initial lockdown, hospitality organizations need to  
601 learn how to conduct business, while remaining safe at the same time. Although a number of  
602 new safety measures have been introduced, the extent to which these measures are complied  
603 with in a ‘deep’ or comprehensive manner will impact not only on the health and safety of  
604 hospitality employees but also the viability of the business. Drawing on a case study from  
605 China, this paper has sought to understand 1) what are the key psychological stages of deep  
606 compliance that employees have experienced, 2) what and how management safety practices  
607 can facilitate employees’ deep compliance, and 3) what and how the broader organizational

608 and environmental context can further shape management safety practice and employees’  
609 deep compliance. Based on the findings from the case study, we answered these questions by  
610 offering a framework of deep compliance, which integrates individual psychological stages,  
611 management practices, and organizational crisis strategies.

612 In relation to the first question, the findings show that individual employees experience  
613 deep compliance as a four-stage psychological process, starting with heightened risk and  
614 health awareness, and then moving to perceived utility value of COVID-19 safety measures  
615 and behavioral adaption, and ultimately promoting the integration of measures into the work  
616 routine. A key finding that emerged from this study is that the experience of deep compliance  
617 incorporates changes in employees’ awareness and perceptions, which drives motivation to  
618 apply the safety requirements and protocols. Furthermore, deep compliance is not static, but a  
619 continuous practice of safety behaviors which facilitates learning overtime, as employees  
620 further revise their perceptions of risks and safety procedures.

621 In relation to the second question, we found that managers can demonstrate their genuine  
622 commitment to workplace safety to employees through three management practices -  
623 protecting, promoting, and participating. In answering the question ‘what and how specific  
624 management practices can facilitate employees’ deep compliance in the context of COVID-  
625 19’, our research suggests that it is the combination of all three practices that cultivates an  
626 absolute commitment to employee safety and wellbeing, which then explicates the deep  
627 compliance process. Our research also suggests that the three practices seem to be more  
628 influential at different psychological stages. For example, protecting and promoting seems to  
629 be important for raising risk awareness and the utility value of safety procedures, whereas  
630 participating helps to translate those awareness perceptions into behavior and integration.

631 Finally, we uncovered that employees’ deep compliance, as well as management safety  
632 practices, are shaped by organizational crisis strategies. Particularly, we highlighted the two  
633 strategies that are particularly relevant: the safety-first strategy; and the survival of the  
634 business as a social responsibility strategy. Through these two strategies, the organization  
635 created a safe haven for employees during the times of crisis, creating a relationship basis for  
636 positive management and employee safety response to take place. Taken together, knowing  
637 how organizations can encourage staff’s safety compliance means managers and safety  
638 professionals can capitalize on the COVID-19 opportunity to drive more effective safety  
639 practices

#### 640 *6.1. Theoretical implications*

641 Our study extends existing research on deep compliance by providing a deeper  
642 conceptualization of this concept as a four-stage psychological process. Deep compliance  
643 reflects an individual’s intention to achieve organizationally desired outcomes (i.e. safety),  
644 and the deployment of cognitive and physical resources to deliver this outcome (e.g. scanning  
645 for risks). Our findings extend this conceptualization by providing an enriched description of  
646 the deep compliance experience. We highlighted that increased awareness of health and  
647 safety risks underpin the intention of attaining safety goals. Our research also found that the  
648 motivation that drives deep compliance behavior goes beyond the protection of the safety of  
649 oneself and other organizational members, and incorporates a sense of moral responsibility  
650 for external stakeholders (i.e. customers) as well as the general public. Furthermore, Hu et al.  
651 (2020) assumed that deep compliance is always effortful as individuals invest cognitive and  
652 physical efforts to achieve safety goals. Our study added a time-perspective, suggesting that  
653 the experience of deep compliance might evolve from initial effortful experience to that of a  
654 less effortful and automatic work habit. Many expressed that they become used to the new  
655 routine after prolonged use: “No, it’s not a trouble at all” as one employee put it. The



656 behavioral adaptation is eased by the fact that many of the new COVID-19 protection  
657 measures such as social distancing, hand washing and wearing face masks are common in  
658 non-work domains too, adding behavioral reinforcement. Furthermore, as employees comply  
659 with new COVID -19 measures, they develop a revised understanding of relevant workplace  
660 health and safety risks, and how the designed safety procedures and processes might protect  
661 them from potential harm. As a result, they become more confident about the effectiveness of  
662 these measures and are willing to continue with such practice even after the pandemic is over.  
663 Overall, our research advocates for a more longitudinal approach to understanding safety  
664 compliance.

665 Second, this study provides a vivid account of how management safety practices influence  
666 deep compliance process. We identified three managerial COVID-19 safety practices: namely  
667 protecting, promoting and participating. These practices map onto six behavioral dimensions  
668 of management commitment to safety proposed by Fruhen et al., (2019): communication,  
669 guidance and support, decision making and planning, allocating resources, involving workers,  
670 and participation. For example, the protecting practices include decision making based on  
671 safety concerns, as well as provision of safety resources. In relation to promoting practices,  
672 communication is an important means to promote the importance of safety via meetings and  
673 training sessions. In relation to participating practice, it includes top-down guidance and  
674 safety audits, as well as bottom-up involvement. In line with this line of research, we  
675 documented that employees perceive that their management is genuinely concerned about  
676 safety through these management COVID-19 safety practices. We further unveiled how these  
677 practices help raise employees' health and safety awareness, influence the perceived utility  
678 value of the new COVID-19 safety measures, enforce compliance behaviors and the  
679 integration to existing safety practices. In doing so, our research advances the understanding  
680 of how management commitment to safety facilitates employee deep compliance.

681 Third, our findings suggest that an organization's crisis response strategies are the ultimate  
682 driving force for both management safety practices as well as employee deep compliance. In  
683 response to the COVID-19 crisis, the case firm strives to protect its employees' physical  
684 safety and job security. Informed by such crisis response strategies, organizational resources  
685 are allocated towards the development and implementation of new safety measures. Financial  
686 pressure is partially relieved via pay cuts at senior management level, while employee jobs  
687 and pay are largely intact. This crisis response strategy aligns with self-sacrifice leadership  
688 (De Cremer, 2009), which refers to "an abandonment or postponement of personal interests  
689 and privileges for the collective welfare" (Choi and Yoon, 2005, p. 52). Prior research  
690 suggests that self-sacrifice leadership is the most important antecedent of employee prosocial  
691 behavior, because the self-sacrificial leader operates as a role model motivating follower  
692 behavior. We extend this line of literature by suggesting that during the time of a crisis,  
693 leaders' self-sacrifice, as well as concern for their employees, alleviate their concerns and  
694 distress resulting from uncertainty and threat due to COVID-19. In doing so, the organization  
695 becomes a safe haven for employees (Feeney, 2004), meeting their need for security. This, in  
696 turn, strengthens employees' willingness to work with the organization and the motivation to  
697 participate in and comply with new safety measures.

698 In summary, our study suggests a need to adopt a multilevel and systemic perspective to  
699 understand how employee deep compliance can be created in an organization.

## 700 *6.2. Managerial implications*

701 Our findings bring several practical implications. First, our findings regarding the  
702 psychological processes implicated in deep compliance point to specific recommendations  
703 regarding the delivery of safety training. As most safety training includes a compliance

704 component (Krauss et al., 2014), knowing more about the judgments and evaluations that  
705 underpin the transition from surface to deep compliance is invaluable. Specifically, our  
706 research shows that it may be advantageous to emphasize certain parts of the compliance  
707 process and highlight the utility and benefits of safety measures. Workers should also be  
708 given opportunities to learn how safety practices can become embedded in their everyday  
709 routines, reducing the impost and disruption to their daily tasks.

710 Second, our findings regarding management safety commitment provide practical  
711 suggestions about how a positive safety climate that promotes deep compliance can be  
712 achieved. Specifically, achieving deep compliance requires management to move beyond  
713 ideas founded on social exchange and towards more nuanced theories surrounding self-  
714 regulation, attachment, and intrinsic motivation. Particularly during pandemics or other  
715 disasters, where there might be a temptation to make quick and unilateral decisions, our  
716 research instead suggests that managers would be better served by slowing down decision  
717 making and including employees in the discussions. High-quality communication about the  
718 rationale and importance of safety measures also appears to be critical. During a pandemic,  
719 leaders should communicate openly and transparently about what they do and do not know,  
720 as well as share the ways in which safety is linked to production and long-term business  
721 viability during difficult times. Finally, visibly committing to the welfare, health, and  
722 wellbeing of employees through providing reassurance, allocating resources to safety  
723 procurement, and highlighting the priority of employee needs, helps to create a ‘safe haven’  
724 within which employees feel safe and secure, bolstering their commitment to the organization  
725 and desire to deeply comply with safety measures.

726 Finally, our findings regarding organizational responses to the COVID-19 pandemic  
727 suggest that strategies convey signals to employees that can shape their relationships with the  
728 organization. Such a signaling effect could be stronger during the COVID-19 pandemic  
729 because it is an unprecedented event; organizational responses or strategies offer informative  
730 cues for employees to understand and make attributions about their organizations. As such,  
731 while organizations consider their strategies or responses to the COVID-19 pandemic based  
732 on economic and business-related factors, they should also consider the implications of those  
733 strategies or responses on employees’ understanding of the organizations and thus employee-  
734 organization relationships.

### 735 *6.3. Limitations and future research orientation*

736 The current study has several limitations. First, the researchers adopted a qualitative  
737 approach based on a single case study, which has limited generalization. The findings should  
738 be interpreted within this niche context. Although single case studies can serve as a powerful  
739 example (Siggelkow, 2007), in terms of having an in-depth understanding of safety  
740 compliance with contextualized findings, it is noted that future work in this area could  
741 simultaneously analyze multiple cases, considering the impact of COVID-19 on restaurants’  
742 safety compliance can vary significantly. Notably, it would be interesting to have a  
743 comparative analysis of the safety culture and practices among different organizations. For  
744 example, to have case firms from the initial epicenter (i.e., Wuhan) may enrich our findings.  
745 Alternatively, future studies could seek to validate our findings using quantitative designs,  
746 with larger samples of firms.

747 Second, previous studies have suggested that there are strong cultural differences in  
748 organizations’ safety behaviors (e.g., Yorio et al., 2019). While this study gave important  
749 insight into the process and the triggers of deep compliance by focusing on an organization  
750 from China, as mentioned above, the generalizability of our findings outside this specific  
751 context is limited. Considering individuals in Chinese culture value power distance and

752 collective responsibility, especially during the time of crisis (Yang, 1993), restaurant  
753 managers and employees in China may be different from those in other countries. For  
754 example, Liu et al. (2012) found that Chinese show a strong spirit of sacrifice in employment  
755 relations for the sake of the collective interest. Thus, when confronting a difficult time,  
756 Chinese people tend to display stronger solidarity and organizational loyalty. That is, the  
757 relationship between external threats and employee safety compliance behaviors may be  
758 stronger in Chinese firms than in Western firms. We, therefore, suggest that future studies  
759 verify and extend these findings in non-Chinese cultures.

760 Finally, COVID-19, as a public health crisis, has certain distinctive features when  
761 compared to other natural disaster crises (e.g., earthquake and hurricane). Its “during crisis”  
762 stage lasts much longer, and there is also intensive government “intervention” throughout the  
763 process. This feature means organizations’ experiences and responses could vary  
764 significantly over time. Therefore, future research would benefit from a longitudinal study  
765 that covers different stages of a crisis and captures organizations’ changes in regard to the  
766 level of threat perceived, the responses undertaken, and the results in terms of performance  
767 and safety.

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877 **Appendix A**

878 **Table A1**  
879 **COVID-19 Timeline.**

		<b>ABC-R</b>	<b>ABC-F1</b>	<b>ABC-F2</b>	<b>Government announcement</b>
January	1.22		Gave face mask to all employees	Closed for holiday as usual, planned to reopen on 1 February*.	Wuhan Lockdown Announced.
	1.23				
	1.24	Open as normal for Chinese New Year Eve banquets.	*Closed for holiday as usual, planned to reopen on 1 February		
	1.25	Open as normal. Customers called in to cancel their reservations.			
	1.26	Temporarily closed			
February	2.1				Local government suggested cancel group dining service.
	2.20	Staged reopen for take-away only service			
March	3.1			Reopen for dine-in service	Local government lifted dine-in restrictions for fast-food stores Local government lifted dine-in restrictions for full-service restaurant
	3.17				
	3.18		Reopen for dine-in service		
	3.29	Reopen for dine-in service with 'half-team' rostered to work.			
	4.30	All employees back to work with full work shifts. All services, except for large banquets, are back to normal.			
April					

880 *Notes: \*employees at two fast-food stores have 7 days New Year leave, but due to the COVID-19, the return to*  
881 *work date was postponed.*

882 **Appendix B**

883 **Table B1**

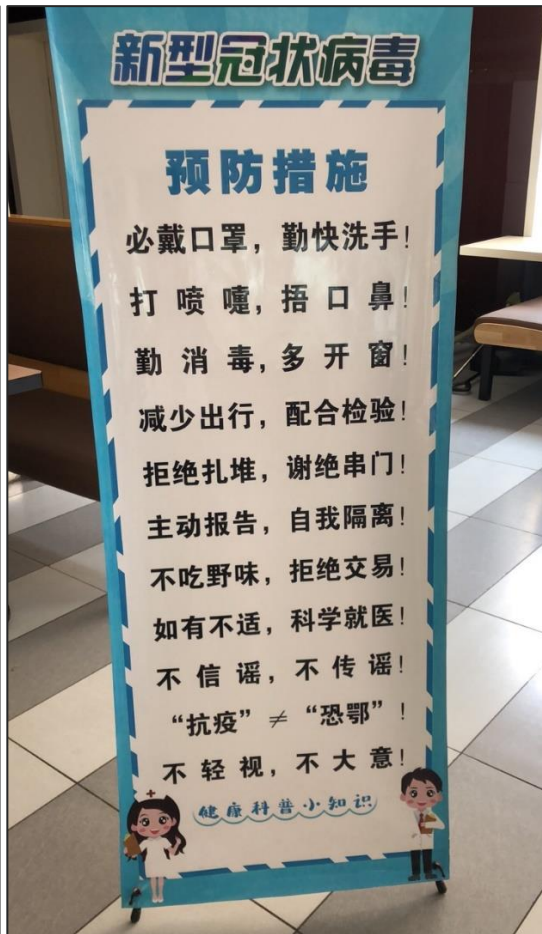
884 **COVID-19 Safety Measures and representative quotes.**

	<b>Measures</b>	<b>Supporting interview quotes</b>
Safety measures for employees	<p>Before work,</p> <ul style="list-style-type: none"> <li>• Fill out travel history form</li> <li>• Compulsory temperature check</li> <li>• 7-step handwashing</li> </ul> <p>During work,</p> <ul style="list-style-type: none"> <li>• All staff must wear face masks and food handling gloves during work.</li> <li>• Practice social distancing during the lunch break, meeting and trainings.</li> </ul> <p>Off work,</p> <ul style="list-style-type: none"> <li>• During the lockdown period, set up a WeChat group for daily check of travel history, temperature and symptoms.</li> <li>• Managers sent daily COVID-19 safety reminders to employees who take public transportation.</li> </ul>	<p><i>“Our staff members take 4 temperature checks every day. If the temperature is above 37.5°C, he/she will be required to take sick leave.”</i> (Manager, ABC-R)</p> <p><i>“Before the shift, managers hand out face masks, and gloves. Mask is required. I have two face masks, one is for off-work personal use, and the other is provided by the manager for work use only.”</i> (Employee, ABC-F1)</p> <p><i>“We have a WeChat group, called ‘We’re family’. During the lockdown period, we group chatted and reported temperature, and travel history in the group.”</i> (Store manager, ABC-F1).</p>
Safety measures for customers	<p>At the Entrance,</p> <ul style="list-style-type: none"> <li>• Require customers to read COVID-19 prevention notice and dine-in notice.</li> <li>• Scan health QR code or fill out register form, including name, contact number, address and travel history in past 2 weeks.</li> <li>• Take temperature check</li> <li>• Apply disinfectant spray</li> <li>• Encourage customers to take away instead of dine in (ABC-F1 and ABC-F2 only)</li> <li>• Require customers to wear a face mask when they enter the restaurant.</li> </ul> <p>During the dining (ABC-R),</p> <ul style="list-style-type: none"> <li>• Provide a “public” pair of chopsticks to transfer food to customers’ own bowl instead of using own chopsticks to share the food.</li> <li>• Cancel reservations for the private dining room.</li> </ul> <p>During the dining (ABC-F1 and ABC-F2)</p> <ul style="list-style-type: none"> <li>• Put marks on the floor to remind of social distancing.</li> <li>• Keep 1.5m to 2m distance between tables.</li> </ul> <p>After the dining,</p> <ul style="list-style-type: none"> <li>• Encourage WeChat pay or Alipay, not cash.</li> </ul>	<p><i>“Customers must wear a face mask before they enter our store, and at the entrance, we have a staff to scan Health QR code. If it is not green, we will not let him/her enter. For people who do not have Health Code, we will ask them to fill out an information form for contact tracing. We also have non-contact thermometer to check customers’ temperature.”</i> (Employee, ABC-R)</p> <p><i>“In Chinese tradition, people prefer to share a meal with friends and family using their own chopsticks, but this may cause the spread of coronavirus. So, we provide ‘public chopsticks’, and experiment with serving separate portions rather than ‘family style’”</i>(General manager, ABC-R)</p> <p><i>“We have lots of marks, such as the 1.5 distance marks on the floor, and the single direction arrow showing the entrance, exit, and the direction for collecting meal. If people stand too close, we will come over and remind them to keep social distance.”</i> (Service attendant, ABC-F1)</p> <p><i>“We ask clients to use WeChat for payment.”</i> (Reception attendant, ABC-R)</p>
Other measures	<ul style="list-style-type: none"> <li>• Disinfect the entire premises at least 2 times a day</li> <li>• Disinfect all eating utensils and the dining table/chairs after each meal.</li> <li>• Disinfect toilet every 30 minutes.</li> <li>• Update disinfection notice and present it at the front door.</li> </ul>	<p><i>“We use ethanol for disinfection. We use such disinfection measures before, but now it becomes stricter. All tables and chairs will be cleaned using disinfectant spray, before customers taking the seats; and when they finish and leave the table, we will disinfect the table and chair again immediately.”</i> (Store manager, ABC-F1).</p>

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消毒记录表

消毒日期	消毒时间	消毒措施	消毒人员签字	备注
2020.3.14	早 7:50	喷洒		
	8:10	擦地		
2020.3.15	7:50	喷洒		
	8:10	擦地		
	12:10	喷洒 紫外线灯		
2020.3.16	早 7:50	喷洒		
	8:00	擦地		
	14:00	门把手、台面酒精擦拭 擦地 厨房紫外线		
2020.3.17	7:50	喷洒		
	8:10	擦地		
	8:10	门把手、台面酒精擦拭		
	14:10	擦地 厨房紫外线		
2020.3.18	7:50	喷洒		
	8:10	擦地		

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Fig. C1. Pictures from top left to right. 7 steps hand washing poster; COVID-19 ‘stop spread’ sign; sanitation records with date, time, specific sanitation measures used, and signature.