



Marketing Science Institute Working Paper Series 2021

Report No. 21-116

Marketing in a Crises-Laden World

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MARKETING IN A CRISES-LADEN WORLD

ABSTRACT

As evidenced by the events that marked the start of the 2020s, marketers operate in a crisis-laden world. Building from theories across a wide variety of disciplines (psychology, management and strategy, and public policy) and in-depth interviews with senior executives from diverse (goods and services) industries, this article proposes an integrative framework for understanding how individual consumers, companies, and governments respond to crises such as COVID-19. This article identifies key sources of heterogeneity (resources, norms, identities) that inform how the different entities respond to crises. In turn, the integrative framework, which spans disciplines, decision-making entities, marketing issues, and industries, reveals new directions for marketing scholarship that can contribute to understanding of the theoretical mechanisms by which crises unfold, as well as the marketing implications for individual consumers, organizations, and policy makers.

Keywords: crisis, pandemic, retailing, technology, public policy

Statement of Intended Contribution

This research develops an integrative conceptual framework for understanding how individual consumers, companies, and governments are impacted by and respond to crises. Drawing from theories in psychology, management, strategy, operations, disaster research, and public policy, as well as 21 in-depth interviews with senior managers from diverse industries, we conceptualize how individuals, companies, and governments respond during and after a crisis. In addition to forming a detailed conceptual framework that helps explain the ‘sense making processes’ during and after the crisis, we identify critical future research questions for marketing, which can be explored to develop a more nuanced understanding of how to create effective crisis responses, as well as crisis preparedness and prevention. This includes examining how resilience and norms influence response to a crisis, how different factors impact consumer, firm, and government responses (e.g., compliant/reactant; unilateral/coordinated), as well as examining immediate marketing consequences (e.g., spending, preferences, behavior, relationships, and innovation). Finally, we focus on longer-term marketing implications in terms of technology innovation, the customer journey, organizational preparedness, and public policy implications.

From a theoretical perspective, our research contributes to the marketing literature by building from a wide variety of disciplines to offer rich conceptual underpinnings for our work. In addition, to assist future researchers who may draw on these theories, we offer descriptions and applications of some of these theories, along with illustrative literature in our appendices. By drawing from these diverse perspectives, we reveal new directions for marketing scholarship that would be difficult to discern using a silo-constrained view. From a managerial perspective, our research offers critical insights for managers and public policy makers to build from as they develop their crisis management strategies for the future.

The unexpected emergence and rapid spread of COVID-19 has triggered public health, economic, and societal crises around the world. As of early 2021, more than 76 million people had been infected; approximately 1.6 million had died. Thousands of firms closed their doors, and governments have enacted sweeping new policies, many of which have implications for marketing.¹ Responses by individual consumers, firms, and governments to this worldwide event differ substantially, because the physical, social, and economic impacts of COVID-19 vary widely. For individuals, responses depend inevitably on people's health status, age, financial resources, geographical location, and ability to work remotely. Impacts across industries have also varied; some have been financially devastated (e.g., travel, hospitality, apparel) while others have thrived (e.g., grocery, home improvement, online education). And while some governments imposed strict lockdowns (e.g., New Zealand), others kept things mostly open (e.g., Sweden), and still others lacked a consistent strategy (e.g., United States).

In this paper, we propose a theory-based, practice-informed integrative framework of (1) the marketing-relevant impacts on and responses by individual consumers, companies, and governments to crises such as COVID-19; (2) the stress triggered by crises and its influence in terms of meaning making; (3) drivers of heterogeneity in impacts and responses; and (4) whether and why marketing-relevant effects may persist in a post-crisis world. Our multidisciplinary examination adopts multiple lenses, including marketing, psychology, management, and operations theory. In so doing, we build on and extend Campbell et al.'s (2020, p. 312) conceptualization of "a 'tapestry' of threats, resulting disruptions, responses, and potential

¹ Marketing literature has a rich tradition of examining consumer and firm responses to various disruptive events, including supply shortages, business cycles and recessions (Van Heerde et al. 2013), product harm crises (Van Heerde, Helsen, and DeKimpe 2007), competitive shifts (Kahn 2018), and policy changes (Moorman, Ferraro, and Huber 2012). However, by all accounts, the COVID-19 pandemic represents a crisis that is more multifaceted in scope and widespread in scale than other disruptive events.

mediators and moderators” to COVID-19, by adopting consumer behavior perspectives (e.g., stress, sense-making), as well as managerially focused considerations (e.g., resources, capabilities). Moreover, our multifaceted lens can reveal how individual consumers, firms, and governments are affected by and respond to crises, both during the crisis and after the risk abates.

We propose three contributions. First, we integrate knowledge about how individual consumers, organizations, and governments respond to crises in general and to COVID-19, using crisis and disaster research as a starting point. We thus incorporate critical research perspectives (e.g., life course theory, resource theories, habit formation, learning, feedback effects, dynamic processes) into our detailed conceptual framework (see both Appendix 1 and Web Appendix A). Second, to link scholarly theory with managerial practice, we incorporate the experiences of senior managers representing a wide array of industries (e.g., fast food, retailing, packaged goods, ridesharing, market research; see both Appendix 2 and Web Appendix B). These interviews were set up by Marketing Science Institute (MSI) and the American Marketing Association (AMA), were conducted by a subset of the authors and were built off a short interview guide.² As Web Appendix B reveals, the insights provided by these managers substantially enrich understanding of the effects of COVID-19, as depicted by our framework. Third, our integrative research approach, across disciplines, decision-making entities, marketing

² MSI interviews – all interviews were conducted by one of the authors and MSI personnel. Key questions included (1) What are the 2-3 most important changes in your business, due to COVID19? (ii) What are some learnings/changes that you made that you anticipate persisting post-COVID-19? (iii) What level of preparedness did you have before the crisis (iv) How has your resource allocation changed? What flexibility did you have in these resources that allowed you to adapt? What trade-offs did you have to make? (v) What market research/ other did you do into consumer behavior, and what were 2-3 most important changes in their attitudes/ behaviors?

AMA and other interviews – all interviews were conducted by 2-4 authors. The interviewees were advised that the interview would focus on two themes (beyond changes during COVID-19). (1) In your opinion, what are the 2-3 major changes due to COVID19, that will sustain past COVID19? What makes these changes ‘sticky’, and others not? (2) As we may move past COVID19 and things improve, what are some of the mechanisms you may put into place to ‘prepare’ for future adverse events (type unknown)? Why these mechanisms – noting that all of these involve costs?

issues, and industries, reveals new directions for marketing scholarship that would be difficult to discern using silo-constrained perspectives (e.g., how consumers and firms can develop resilience, cost–benefit trade-offs). Thus, this research can assist consumers, managers, and policy makers understand the impacts of COVID-19 better and provide new guidance for how they can develop resilience to not only respond to this crisis but also prepare for future, unexpected events.

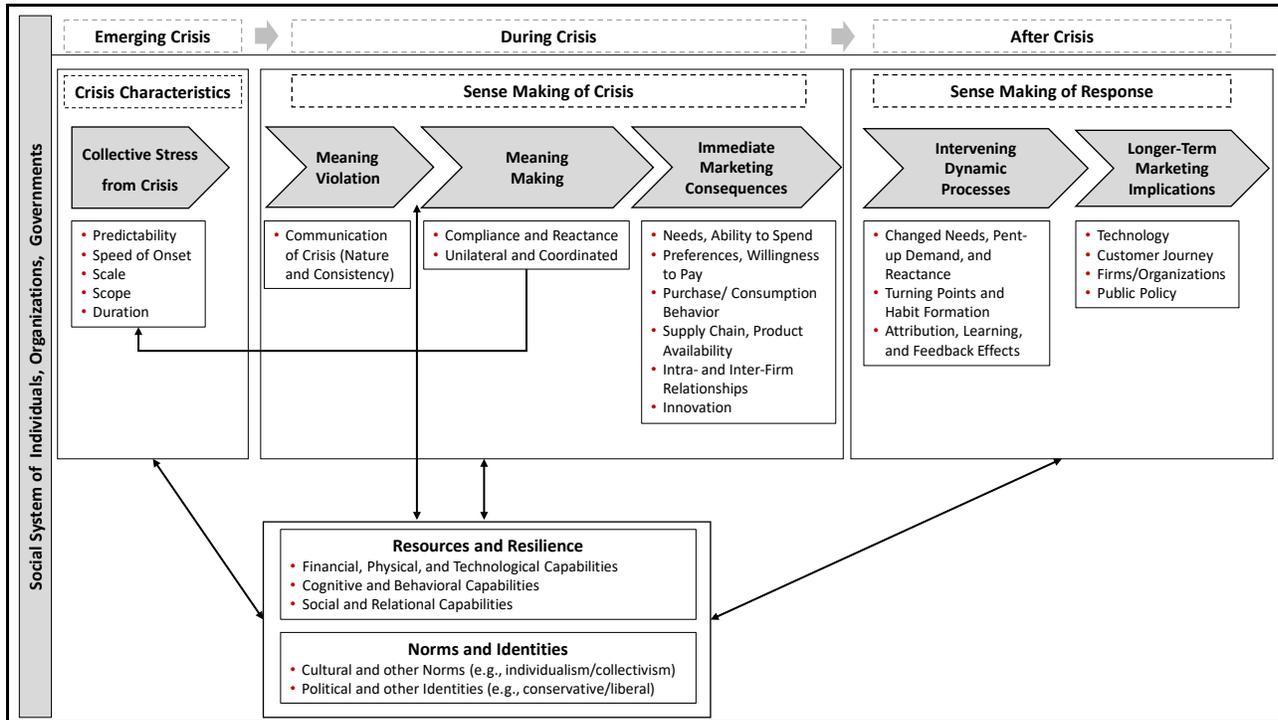
CONCEPTUAL FRAMEWORK

The conceptual framework in Figure 1 depicts a process perspective on how crises affect consumers, firms, and governments, and then how societal responses evolve. We begin with the notion that an emerging crisis produces *collective stress* (Barton 2005), because members of a social system fail to encounter normally expected conditions of life (Quarantelli and Dynes 1977). The nature and intensity of collective stress is a function of the characteristics of the crisis (e.g., predictability, speed of onset, scale, scope, duration), and it results in perceived threats to core values or familiar frameworks (Rosenthal et al. 1989).

By undermining a sense of meaning, the crisis evokes a *meaning violation* (Heine, Proulx, and Vohs 2006). For example, social restrictions to prevent the spread of COVID-19 violate popular perceptions of how the world works, by restricting people’s ability to come near families, friends, colleagues, or customers or by restricting their access to work, school, restaurants, theaters, gyms, and travel. People’s approach to make sense of meaning violations, in turn, depends on how the crisis is communicated. Communications can be conceptualized at different levels, such as within and between consumers, firms, or government. In Figure 1, we propose that two dimensions of communication are especially important: the nature of its content

(i.e., whether it acknowledges the gravity of the crisis and suggests suitable behaviors) and its consistency.

**FIGURE 1
CONCEPTUAL FRAMEWORK**



The approach to make sense of the crisis might also be moderated by both the degree to which actors' *resources* allow them to be more resilient (e.g., Dorsch, Törnblom, and Kazemi 2017) and the *norms and identities* that come into play. Both moderating factors also could determine the degree to which a crisis evokes changes in people's post-crisis behaviors. Such reasoning aligns with meaning making theory, which predicts that once meaning has been violated, people, firms, and governments all seek to resolve the discrepancy and thereby restore meaning (Park 2010; Proulx and Inzlicht 2012; also see Web Appendix A).

In essence, actors engage in *meaning making*. Some of them may seek to revise a familiar meaning framework, by adapting it to a crisis, which represents a compliant response (e.g., adopt a mindset that COVID-19 as a serious situation that requires restricting social interactions). Others likely respond by engaging in reactance (e.g., adopt a mindset that COVID-19 is not that

serious, and so there is no reason to curtail social interactions). As a crisis develops and more information becomes available, these responses also can change. Some of them may morph from a unilateral to a more multilateral response. For example, early in the pandemic, families isolated, and firms and governments made separate decisions. Over time though, families and friends coordinated grocery shopping; hotel companies collaborated with educational institutions and airlines worked with meeting space providers; neighboring U.S. states coordinated their lockdowns and travel guidelines. Coordination can and should arise across individual consumers, firms, and governments too.

The meaning making response (e.g., compliance or reactance) of various social actors then may have feedback effects on the crisis, in terms of its scale, scope, and duration. For example, due to differences in their national response to COVID-19, some countries (e.g., China, Vietnam, South Korea, New Zealand) better contained its scale and scope, compared with many other nations (e.g., United States, Brazil). The crisis and type of sense-making and response by various consumers, firms, and governments therefore have important *consequences for marketers*. For example, changes in consumer and firm needs, as well as the resources available to them, affect how products and services get purchased and consumed. When firms must adjust the ways they interact and conduct business, it also affects their supply chain operations and how they deal with disruptions. Finally, if a crisis deepens, the ability and willingness of customers to pay for specific products and services alters how firms charge for these offerings.

Finally, as a crisis abates, social systems transition into a post-crisis phase, which represents the emergence of a “next normal” (Sneader and Singhal 2020). Which changes that occurred during a crisis will persist, and to what extent? Which changes will revert back, to what they were prior? The answers depend not just on whether and how needs change but also on the

intervening processes in play, many of which may be at odds. We leverage intervening processes to examine the *longer-term implications* of marketing-relevant changes during a crisis. Noting that technology has played a significant role in the response to COVID-19, we include a specific section on the role of technology in the long-term implications section. We present and discuss each of these elements in our framework in turn.

COLLECTIVE STRESS

Crises and disasters induce stress and a host of negative emotions (e.g., threat, anxiety, sadness) (e.g., Boin, Hart, and Kuipers 2018; Jonas et al. 2014).³ A collective sense of stress is experienced by various members of a social system, due to wide-scale changes to their normal way of life (Barton 2005). The intensity of this collective stress is a function of fundamental crisis dimensions, including its predictability, the speed of its onset, the scale and scope of its impacts, and its duration. These dimensions also exert interactive effects (Barton 2005; Perry 2018). *Predictability* refers to how easy or difficult it is to foresee a crisis.⁴ *Speed of onset* describes how fast a crisis emerges (tsunamis emerge quickly; pandemics like COVID-19 develop over months; climate change continues to build over years). When a crisis is perceived as urgent, there is a sense that “the threat is here, it is real and must be dealt with now” (Boin, Hart, and Kuipers 2018, p. 25). The *scale* is based to the death/damage toll and geographic reach of the crisis, whereas its *scope* indicates the number of facets of normal life that are affected. Finally, *duration* refers to the length of time the crisis remains in effect.

³ For simplicity, we use the terms crisis and disaster interchangeably, but some authors distinguish them, such that “a crisis involves an urgent threat to the core functions of a social system,” whereas a disaster is “a crisis with a bad ending” (Quarantelli, Boin, and Lagadec 2018, p. 67).

⁴ Some of the senior managers we spoke to admitted that they were somewhat unprepared for COVID-19 (e.g. Web Appendix B, I-19)

MEANING VIOLATION

Crises often trigger perceived threats, because they threaten a community's core values or life-sustaining systems (Rosenthal et al. 1989). As a result, "widely shared values such as safety and security, welfare and health, integrity and rule of law, ... become shaky or even meaningless as a result of (looming) ... adversity" (Boin, Hart, and Kuipers 2018, p. 24). When meaning becomes violated, people have difficulty making sense of their experiences and, more broadly, the world around them (Park 2010). In essence, they no longer know what to expect. A sense of meaning and expectations of normative relationships provide familiarity, such that people anticipate that they can reasonably understand, predict, and control their experiences and their environment. For example, before the emergence of COVID-19, shaking hands and hugging were normal social greetings, associated with positive emotions and signifying connection or friendship. In the COVID-19 era, these behaviors are now viewed negatively, linked to the risk of spreading the virus. This violation of existing expectations causes people to experience "an aversive state of arousal that replaces the sense that our experiences are comprehensible and familiar" (Proulx and Inzlicht 2012, p. 327).

In addition to violating the meaning of social interactions and evoking existential mortality threats, COVID-19 violated conventional firm operations, including imposing restrictions on employees' work sites, restricted interactions with customers, disrupted supply chains, and reduced revenues. A senior executive from the beverage sector noted, in our interview, that COVID-19 "fundamentally changed the economics ... of the entire industry" (Web Appendix B, I-1). When vast sectors of national economies suffer, meaning violations also arise for governments, e.g., health care systems were been overwhelmed. Web Appendix B provides additional illustrations of pandemic-triggered meaning violations.

Once meaning violations occur, communication becomes particularly important for determining the impact of the crisis. Key considerations are the nature (or content) of communications (e.g., acknowledge gravity of the crisis, suggest suitable behaviors), as well as its consistency over time. Even if communications need to change, reasonable and internally consistent explanations should be provided. In Vietnam for example, government communications consistently acknowledged the threats of COVID-19; fewer than 50 people died from the virus (Klingler-Vidra and Tran 2020). In contrast, in the United States, where communications were inconsistent, COVID-19 is predicted to result in half a million deaths, and the collective stress has been exacerbated. Firms also offer varied crisis-related communications, as our interviews reveal. Some firms acknowledged COVID-19's severity and have striven to communicate the threat to consumers and employees, in a way that fostered stronger relationships. A senior manager of a leading rideshare firm indicated that his company urged consumers to limit their usage and wear masks. In parallel, the ride share company communicated the need for safety to drivers and strongly encouraged drivers to wear masks, as well as install plastic dividers as physical barriers from customers (Web Appendix B, I-2). Similarly, the Dean of a leading business school committed to providing COVID-19 testing to all returning students (Web Appendix B, I-3). In contrast, other firms did not initially acknowledge the gravity of the situation, which increased employee stress. As Reinstein (2020) reports, a conservative-leaning CEO forbade employees from wearing a mask ("you can either take off your mask, or you can go home").

RESOURCES AND RESILIENCE

Some societal actors are relatively more resilient to the effects of crises and meaning violations, due to certain resources at their disposal (resource-based view: Barney 2018).

Resilience implies that actors are better “able to deal with risk, or the manifestation of risk as disaster” (Kendra, Clay, and Gill 2018, p. 87; also see Web Appendix A). They can withstand and recover from disaster, so resilience serves as a key moderating variable of the effects of stress induced by the crisis (Figure 1).⁵ Resilience also can be learned and implemented, and it represents “an aspirational state” that can guide capacity-building efforts (Kendra, Clay, and Gill 2018, p. 87). Thus, we discuss resilience to gain insights into how individual consumers, organizations, and governments might improve their ability (e.g., becoming more digitally agile during COVID-19) to manage a crisis such as COVID-19. That is, we consider the various resources that enhance actors’ ability to withstand stress, according to both their control over certain resources and whether they leverage them to cope better with stresses. Three categories of resource capabilities are relevant here, as detailed next.

Financial, physical, and technological capabilities. These scarce resources help actors achieve their objectives, despite adversity. *Financial capabilities* imply that the entity can stockpile resources (Williams et al. 2017), whether owned or just accessible (e.g., lines of credit) which helps it withstand adversity (Bradley, Shepherd, and Wiklund 2011). Senior managers of a fitness firm and a holding company (Web Appendix B, I-4 & I-5) highlighted the importance of gaining quick control over a crisis by securing standby credit lines. *Physical* and *technological capabilities* can be similarly helpful. For example, firms with more widely distributed supply chains and superior online commerce capabilities achieved much better resilience to the damages of COVID-19. Consumers with access to financial resources do not have to worry as much about job insecurity; those with technological resources likely can work easily at home; and people

⁵ For example, on the *individual level*, resilience is linked to a person’s coping (situational or trait-based) capacities (Kendra et al. 2018). On the *organizational level*, resilience is closely related to the theory of ‘High Reliability Organizations’ (HRO), which describes organizations that are “especially good at detecting danger, either from internal failure or external disturbance, and responding to lessen the danger” (Kendra et al. 2018, p. 90).

with physical resources (e.g., health, fitness, youth) may feel less threatened by the virus. And universities with superior technology capabilities were better able to cope with the challenges imposed by COVID-19 (Web Appendix B, I-6).

Cognitive and behavioral capabilities. Social actors with strong *cognitive capabilities* tend to have strong planning and problem-solving skills. They also have a strong sense of purpose (Collins and Porras 1994) and can frame the crisis in a way that encourages problem solving and facilitates coping (Coutu 2002, also see Web Appendix A). *Behavioral capabilities*, in reference to a firm, are embedded in its structures, operating processes, and activities (Galbraith 1973; Williams et al. 2017). For example, at the onset of COVID-19 some manufacturers pivoted quickly and changed their product mix, such as when apparel manufacturers started producing facemasks, and spirit manufacturers produced hand sanitizer. For consumers, self-efficacy and self-confidence can help people withstand adversity (Polk 1997).

Social and relational capabilities. This group of capabilities reflects “social connections that enable access to and exchange of resources” (Williams et al. 2017, p. 745). People also might be better able to withstand adversity if they have close relationships with others (Higgins 1994). For example, a U.S.-based gym franchise’s relationship with gym chains in Asia helped it predict the disruptions it would face at the onset of the pandemic and develop possible response options (e.g., reorganize gyms to allow for suitable social distancing) (Web Appendix B, I-4).

Interactions and implications. Some of these capabilities exert positive impacts on performance, regardless of whether a crisis is occurring (e.g., a strong cognitive sense of purpose allows firms to thrive in all circumstance; Achor et al. 2018), but other capabilities could have varying effects during times of crisis versus normal conditions. Redundant supply chains may be

costly and suboptimal in non-crisis times but critical in crises (Web Appendix B, I-5). Therefore, organizations face a dilemma about whether to acquire or develop such redundancy capabilities (Lampert, Kim, and Polidoro 2020). It also is necessary to take consideration of the implications of resources and resilience for vulnerable consumers, who are disproportionately affected by crises and “subject to harm because their access to and control over resources are restricted in ways that significantly inhibit their ability to function in the marketplace” (Hill and Sharma 2020, p. 551). Groups with limited autonomy are generally more vulnerable (e.g., elderly, disabled, ill, imprisoned people) (Stough and Kelman 2018) and have specifically been so during COVID-19. Marginalized populations experience inequalities that heighten the risk of relative poverty and limit resiliency (Hill and Sharma 2020). For example, despite being the head of single-parent households more often than men, women exited the work force during COVID-19 at four times the rate of men (Scott and Martin 2021).

NORMS AND IDENTITY

Various norms and identities also determine the ways and extents to which entities respond to crises like COVID-19. Social and cultural norms (e.g., values, customs, conventions) reflect (explicit or implicit) rules or expectations about what constitutes appropriate behavior (Baron and Byrne 1981), and are likely to influence how they respond to COVID-19 (e.g., wear masks or decline to wear them, get vaccinated or decline to get vaccinated). We focus on the cultural norms of individualism/collectivism (Huang et al. 2020). When cultural norms lean toward individualism, members tend to favor personal autonomy and independence. Cultural norms that lean toward collectivism instead “may motivate individuals to remain committed to social norms while suppressing personal desires” (van Bavel et al. 2020, p. 463), and to support a broader collective (Triandis 2001).

Political identities reflect a “self-concept based on their ideology regarding the underlying goals and ideals about how a social and political system should work” (Jung and Mittal 2020, p. 55; van der Toorn, Napier, and Dovidio 2014). This stable identity feature (Oyserman and Schwarz 2017) can predict and reflect people’s attitudes, values, motives, and behaviors (Jung et al. 2017). For example, conservatives and liberals tend to differ in their moral values (Graham, Haidt, and Nosek 2009). Liberals generally advocate for rapid social change; conservatives are more comfortable with gradual change, to help overcome discomfort with ambiguity and uncertainty (Jost 2017). Calvillo et al. (2020) establish that conservatism correlates negatively with U.S. respondents’ perceptions of their COVID-19 vulnerability and its severity. Because conservatives perceive lower risk from COVID-19, they are less likely to comply with mask mandates, which they regard as inconsistent with their value for freedom and thus in conflict with their identity (Pereira and Stornelli 2020).

The concept of resilience, and its role in helping individuals and organizations cope with meaning violations during times of crisis, raises several intriguing research questions for marketing scholars (detailed in Table 1). One set of research questions relates to the creation of a suitable resilience measure (e.g., *FICO resilience score*, Rosenberg 2020). The FICO resilience score is more forward looking than the typical FICO credit score and attempts to predict what may happen in a recession or similar crisis. This new measure is brand new and relatively untested, and so it is important to identify the degree to which this measure produces a valid and reliable indicant of (individual) resilience. Moreover, care must be taken that such resilience scores are not inadvertently utilized in a way that can harm the less privileged.

It is also important to (better) understand the costs and benefits of resilience, and to understand when firms or individuals should choose to invest in resilience. Similarly,

governments around the world have grappled with the classic self-control trade-off of discomfort in the short-term vis-a-vis later rewards (Baumeister et al. 1998). Short-term discomforts include firms and policy makers demanding that consumers take steps to reduce the spread of a crisis such as COVID-19 (e.g., shelter in place, wear masks, and/ or keep children home from school), despite the economic and political costs. Later rewards relate to reduction in infections, loss of life, and reduced strain on the healthcare system. In addition, further research is needed to better understand how governmental and organizational entities can coordinate to protect the vulnerable during crisis preparation, response, and recovery, as also the impact of these efforts on the well-being of the broader population.

Another set of research highlights the direct and moderating effects of norms and identities (see Table 1). The norms stemming from cultural orientation and political ideologies likely influence both short- and long-term marketing consequences of COVID-19. Beyond the norms and identities discussed above, other norms, such as power distance, uncertainty avoidance, masculinity, and time orientation are likely to moderate the crisis effects and are interesting avenues to explore. Further research is needed to articulate and test how these factors might affect short-term behaviors during a crisis. Such discussions might also pertain to various consumer behaviors beyond mask mandates or social restrictions, such as safer shopping behaviors (e.g., online, curbside pickup), openness to (potentially intrusive) contact-tracing apps, or willingness to engage in non-essential travel.

TABLE 1
RESEARCH QUESTIONS: HOW RESILIENCE AND NORMS INFLUENCE
RESPONSE TO CRISIS

Research gap	Specific research questions
Measuring resilience	There is no widely accepted resilience measure for firms or individuals. Should there be, and what should such measure be?
Benefits of resilience	Especially regarding individual consumers, there is little research into benefits of resilience (especially in times of crises).
Cost-benefit tradeoff in building resilience	How do firms and consumers weigh the costs/benefits of building resilience? What key factors determine when firms or consumers should invest in building resilience? Does building resilience require investments, or can it be bought, rented, or planned for using a real options approach?
Linkage between resilience and compliance	Are more resilient actors likelier to exhibit compliant behaviors during a crisis? Why? Are there common antecedents, or does the process of becoming more resilient prompt compliant behaviors?
Vulnerable consumers	How should government and organizational entities coordinate responses to protect vulnerable populations? Can such efforts enhance the well-being of the broader population? What are consequences of a reactant response on the most vulnerable members of a society?
Norms	How do cultural norms (e.g., individualism/collectivism, power distance, uncertainty avoidance, time orientation, and social norms) moderate the effects of crises?
Identity	How do firm and government ideologies (e.g., liberal/conservative) influence actions? How do these actions influence consumer behavior? How do individual identities (e.g., professional, ethnic, religious, political) moderate responses to a crisis?

MEANING MAKING

Following meaning violation and reflecting the influences of the resources and resilience and norms and identity moderators, another second phase of *meaning making* initiates, such that actors seek to make sense of the meaning violation (Park 2010). Meaning making can be compliant or reactant, and might evoke unilateral or coordinated efforts.

TABLE 2
COMPLIANT VS. REACTANT MEANING MAKING IN A CRISIS

Compliant Restoring sense of the familiar: “Covid-19 is serious, and we need to adjust procedures” → protective action)	Reactant Retaining sense of the familiar: “Covid-19 is similar to flu and requires little/no change” → denial)
Illustrations	
Consumer-level	
<ul style="list-style-type: none"> ▪ Wear masks, social distance, hide at home. ▪ Shift away from brick-and-mortar to online grocery shopping (boost for shopping services such as Instacart; focus on shelf-stable products, hoarding, reduced promotion sensitivity, brand switching) ▪ Shift away from face-to-face to online services (e.g., telemedicine) ▪ Increased savings behavior 	<ul style="list-style-type: none"> ▪ Refusal to wear masks and reject social distancing guidelines. ▪ Relatively unchanged consumption behaviors ▪ Voicing of skepticism about or denial of effectiveness of social distancing guidelines (e.g., on social media platforms).
Firm-level	
<ul style="list-style-type: none"> ▪ Employees work from home, travel restrictions. ▪ Firms change products and product portfolios (e.g., retailers offer more non-perishable options for easier stockpiling; cosmetic firms develop smudge-proof products that do not contaminate face masks). ▪ Firms change customer–employee interactions (e.g., require employees and customers to wear masks; installation of Plexiglass at check-outs; contactless payment options; shift toward online/virtual interactions; introduce rigorous cleaning routines). 	<ul style="list-style-type: none"> ▪ Slow adoption of accommodations for employees to work from home or corporate travel restrictions. ▪ Slow (or difficult) process to refund money to consumers for pandemic-related failures (e.g., airline, hospitality, entertainment sectors) ▪ Slow (or little) accommodations to protect employees while at work (e.g., rigorous cleaning/disinfecting routines in retail facilities, hospitality, and transportation services).
Governmental level	
<ul style="list-style-type: none"> ▪ Issue immediate guidelines (e.g., social distancing, limit export of surgical masks) ▪ Develop and implement testing and contact tracing programs. ▪ Implement aggressive precautionary measures (e.g., taking temperatures, providing hand sanitizers). ▪ Develop long-term policies (e.g., prioritizing, distributing, administering vaccinations) 	<ul style="list-style-type: none"> ▪ Slow to respond and hesitant to escalate stringent public (health) policies. ▪ Delayed (or no) lockdown of economy. ▪ Lack of consistent communication (e.g., contradictory, confusing guidelines across different levels of government).

Compliant and Reactant Meaning Making

As shown in Table 2, compliant meaning making entails revising existing meaning

frameworks to make them consistent with the crisis (Park 2010). Once people adopt a mindset that COVID-19 is serious, they likely adjust their behaviors too (e.g., social distancing). Many compliant firms not only modified their behaviors, such as by asking employees to work from home, but also altered their product offerings and service delivery to meet consumers' shifting needs. For example, senior managers of a popular fast-food company (Web Appendix B, I-7) indicated that when on-premises dining was restricted, they directed consumers toward online ordering and established curbside and delivery services. Retailers also changed their product assortment by increasing the amount of stock of in-demand, well-known legacy brands (Ross, Meloy, and Carlson 2020). Manufacturing firms changed their product lines too. Beverage firms shifted their product mix away from 20-ounce plastic bottles to 12-ounce cans, noting that the latter were better related to in-home consumption. Other production lines allocated capacity to hand sanitizers (Web Appendix B, I-1, I-8, & I-9). Compliant work practices also included a stronger focus on employee safety (e.g., ride share companies reduced driver interactions with customers, Web Appendix B, I-2; other examples of firms' focus on employee safety emerge in Web Appendix B, I-10, I-11). Finally, for governments, compliant meaning making would entail activating social distancing mandates and closing various businesses (e.g., gyms, theatres).

A *reactant* form of meaning making (Table 2) might arise if actors perceive threats to their personal freedoms (Brehm and Brehm 2013; also see Web Appendix A). People express reactance by engaging in behaviors that promise to restore their freedom; for example, they might decide that COVID-19 is a minor threat and refuse to comply with mask mandates. These actors seek to retain their "normal" life as much as possible, as when the president of Mexico urged citizens to "keep living life as usual" (Agren 2020).

These forms of meaning making also link back to the communications considerations that

we discussed in relation to meaning violations. Specifically, communication strategies span a continuum, from bridging to buffering (Kim and Krishna 2017). A bridging-oriented strategy is more relationship-focused and seeks to include stakeholders in decision-making (Kim and Krishna 2017), consistent with a compliant response. For example, when gyms had to close, the major fitness franchises quickly suspended monthly payments, initiated communications with their customers, and provided alternatives like online exercise classes, according to our interviews (Web Appendix B, I-4). Buffering-oriented communications strategies (Kim and Krishna 2017) instead are more transactional and inward-looking, focused on protecting an actor's reputation and managing stakeholders' perceptions. This strategy tends to be reactant, in that it embraces "deny and diminish" approaches articulated by situational crisis communication theory (Kim and Krishna 2017; also see Web Appendix A). For example, some airlines made it difficult for consumers to obtain refunds for flights cancelled due to COVID-19-related travel restrictions (Reed 2020).

Finally, we note that meaning making can transform over time, due to different moderating effects, such as when social norms exert pressure to encourage reactant actors to adopt more compliance. Companies might require customers to wear face masks; local, regional, or national governments also can enforce social distancing guidelines with fines. But compliant meaning making also might transform into more reactant forms, reflecting the moderating influence of resources. Self-control is a limited resource, and efforts to exert it often reduce people's future ability to exert it during subsequent encounters (e.g., Hagger et al. 2010). This depleted resource may help explain a recent global survey that revealed "rising levels of apathy among some populations," such that "many people are feeling less motivated about following protective behaviors after living with disruption and uncertainty for months" (Roberts 2020).

Unilateral and Coordinated Efforts

In the first stages of a crisis, actors might sense they need to make their own decisions about how to deal with it, but as more resources and communication become available, they may work together to establish more coordinated efforts. For example, in the early months of the COVID-19 pandemic, many families self-isolated themselves, and firms and governments made individual decisions. Over time, families and friends began to coordinate their grocery shopping responsibilities; hotels collaborated with educational institutions; and neighboring U.S. states coordinated their lockdowns and travel guidelines. Fox (2020) describes a parent in Seattle who formed a learning pod with six children and arranged in-person classes with a teacher. In some cases, educators, as representatives of their school as a government agency, took the lead in creating such learning pods by establishing “micro-schools” (Schiferl 2020). Coordination also can happen within firms or between government agencies and firms. For example, loans and tax relief for firms may help sustain the continuity of their employment and operations, which also would have benefits for consumers (Balibek et al. 2020).

TABLE 3
RESEARCH QUESTIONS – MEANING MAKING

Research gap	Specific research questions
Compliant vs. Reactant	For all of consumers, firms and governments, what factors impact the extent to which these entities systematically choose compliant vs. reactant responses? Such factors may relate not only to the entities in question, but also to (i) country-level differences, and (ii) crisis-type differences. If an entity initially chooses a compliant (or, reactant) response, what factors impact whether such entities later on switch their response?
Unilateral vs. Coordinated	For all of consumers, firms and governments, what factors impact the extent to which these entities systematically choose to move from unilateral to coordinated responses, noting that coordinated responses involve both benefits and costs (esp. coordination costs)? Such factors may relate not only to the entities in question, but also to (i) country-level differences, and (ii) crisis-type differences.

IMMEDIATE MARKETING CONSEQUENCES

As the descriptions of meaning making suggest, the responses by the various social actors affect a host of outcomes, establishing some immediate consequences for individual consumers, firms, and governments. For the purposes of this review, we focus on six critical considerations that are directly relevant to marketers.

Needs and Ability to Spend

As hinted at in our previous discussion of resources and resilience, COVID-19 resulted in dire consequences for many vulnerable consumers (Geher 2020). Economic, health, and family-related concerns forced consumers to relatively focus on lower-level goals in Maslow's hierarchy (e.g., safety and physiological needs, food and shelter).⁶ Further, the negative economic shocks (linked to COVID-19) for many consumers negatively impacted ability to pay. The marketing implications are clear for product offerings - consumer demand for inexpensive foods that can be stockpiled and consumed at home, cleaning and sanitizing products, and telemedicine services grew tremendously. In response, companies restructured their offerings to address these needs.⁷ Even product packaging, such as packaging which prioritized product sterility, sought to address consumers' needs for safety and security.

In contrast with typical economic crises, which reduce discretionary income and increase price sensitivity, the scope of COVID-19 has been more asymmetric in nature. People who lost their jobs are more price sensitive, even if they are not food insecure (Menon 2020). Workers

⁶ For example, while typically only "4% of American adults report that at least some members of their family did not have enough to eat; by July 2020, that figure had hit 11%" (Menon 2020). Benfer et al. (2020) report that up to 40% of renters were at risk of eviction in 2020, due to COVID-19's economic shock.

⁷ Attachment theory (Mende, Bolton, and Bitner 2013; also see Web Appendix A) suggests that some consumers form particularly strong and meaningful attachments to brands in times of need, which implies that brand loyalties formed during the pandemic might last beyond this crisis. Consumers also might prefer nostalgic consumption during the pandemic, because these products provide emotional benefits to consumers in times of need.

who remained employed (often, by working remotely) have potentially more discretionary income, because their spending on items like transportation and office attire decreased (Scheiber 2020). Thus, these consumers could afford to pay for new, relatively expensive services to consume at home (e.g., Peloton exercise services, Disney+ entertainment services). Similar asymmetries also arise among firms. Those with more resources and thus greater resilience, such as Walmart, invested to solidify their positions, but many smaller, local businesses have struggled to survive.

Preferences and Willingness to Pay

Beyond altering their actual needs, COVID-19 has prompted changes in consumers' preferences for different types of products and services. Galoni, Carpenter, and Rao (2020) establish that contagious disease cues evoke feelings of fear and disgust, which in turn increase preferences for familiar products. Noting that people with more financial resources express less need for social connectedness and will substitute them with brand connections (Brick, Chartrand, and Fitzsimons 2017), we posit that – in these times of reduced social connectedness - consumers' connections with preferred brands (and willingness to pay for them) might grow stronger. Social exclusion also appears to nudge consumers toward products that can help them compensate for social relations such as buying products that symbolized group membership (Mead et al. 2011). Kwon, Manikas, and Barone (2021) examine the impact of loneliness, and find greater need for social connection and increased willingness to try distal products among lonely people.

Business cycle research has established that private-label shares grow during tough economic times (Lamey et al. 2007), seemingly because these offerings tend to be less expensive. However, national brands have a consumer trust advantage, which becomes more

salient in public health crisis. Thus, shifts in national brand and private-label shares might be particularly relevant during the pandemic. In addition, retailers might strategically prioritize their private labels over national brands but doing so may lead to more frequent out of stock scenarios, which would cycle back and influence preferences.

Other resources could moderate these implications as well. As we noted, self-control is a limited resource, and its depletion tends to lead to impaired self-control in subsequent tasks (Hagger et al. 2010). If consumers must exert self-control to avoid their normal social interactions or limit their spending, they may be unable to resist purchases of certain vice products. During the pandemic, people have noted significant weight gain (referred colloquially to as the “Quarantine 15”), as well as noted increased alcohol consumption. These moderating resource considerations also vary across actors, such that people who live with large families might not have suffered decrements to their social capabilities, because they continued to maintain some of their normal social interactions.

Purchase and Consumption Behavior

Economic crises typically force cash-strapped consumers to buy smaller quantities, even of essentials, because they cannot afford large cash outlays and look for deals and lower-priced options. In contrast, public health crises (e.g., COVID-19) that render physical proximity with others risky may reduce shopping frequency, stimulate purchases of nonperishable and storable foods, and increase spending per trip (Charm et al. 2020). Moreover, as consumers try to limit the time spent in stores, they are less likely to look for deals or cherry-pick across stores. The actual outcome is determined by the relative weight of the two (countervailing) forces stated above, very different to purely economic crises.

Also, preference for online shopping increased. Consumers are more likely to shop online,

or use other variations of online shopping, like click-and-collect and curbside pick-up (Charm et al. 2020). Accordingly, U.S. online purchasing grew by nearly 30%, matched by substantial increases in curbside pick-up for various retailers, such as restaurants and stores (Charm et al. 2020). Such ordering and delivery considerations may help predict the trajectory of online shopping habits after the crisis. There is also evidence of increased comfort with global online buying among B2B buyers (Bages-Amat et al 2020).

Supply Chain and Product Availability

Crises create pressures on supply chains. On the supply-side, a crisis prevents normal production, trade, and transportation (e.g., firms cannot source raw materials and components for products, run their own production lines, or ensure products are physically available to resellers and consumers), and thus stresses the supply chain. On the demand-side, as noted prior, preferences for different types of goods shift, and the firm's advertising and promotion strategies likely need to be adjusted. For example, when demand for travel collapsed in 2020, airlines halted orders for new aircraft and furloughed employees. Apparel manufacturers and their department store channel partners also closed their factories and stores (Testa, Maheshwari and Friedman 2020). Heightened demand for consumer-packaged goods and home furnishings challenged manufacturers of toilet paper, packaged foods, and appliances to keep up and find new ways to source raw materials, packaging, production, human resources, and transportation services. For many providers, demand shifted from institutional channels (e.g., serving offices, restaurants, hotels) to retail channels serving consumers. These two channels have different requirements, and managing the shift is complicated.

One way that companies have dealt with supply chain shortages is to reduce the size of their product assortment and focus production capacity on fewer items. Companies like Coca-Cola and Tapestry cut their product line by 50% or more. Smaller brands were especially

vulnerable because they typically have fewer resources and less resilient supply chains. A senior manager from a leading soft drink manufacturer indicated that his firm gained shelf space at the expense of smaller brands, because it had more resilient supply chains and better access to raw materials (Web Appendix B, I-1).

Practitioners and academics must reckon with the trade-off between efficiency and flexibility in supply chains, as we noted in our discussion of resilience. In recent years, supply chains aimed for lean manufacturing, just-in-time systems, and supplier consolidation, but the risks relating to these efforts became abundantly clear during the pandemic. A simple cost–benefit analysis likely is insufficient; firms likely will need to incorporate real option analyses to define the best ways to make phased investments in flexibility, contingent on whether a crisis emerges. Other moderators might inform these trade-offs too, such as the type of industry or degree of competitive threat.

Intra- and Interfirm Relationships

In addition to supply chain considerations, COVID-19 has altered relations among and within firms, such as prompting more local and decentralized decision making within the firm (due to limited travel). For example, Accor Hotels has restructured to become more decentralized, with the prediction that it will need a more localized strategy to grow revenue as the pandemic recovery progresses at different paces, depending on geography (Skift 2020). Buyer–seller dyads also need to cooperate to find solutions, supported by available technology resources that support virtual visits by salespeople to customers, consultants to clients, and senior management to international markets. A McKinsey (2020) report indicated that only 20% of buyers surveyed expected to return to in-person sales; by the third quarter of 2020, 75% of them indicated that digital interactions during the pandemic were as effective as traditional selling

practices (consistent with assertions by a senior manager in a market research firm, see Web Appendix B, I-12). Yet these initial “can do” attitudes and satisfaction with remote working are being replaced by “zoom fatigue” among employees, who seek a change in environment and worry about losing customer relationships if they cannot meet face to face. These relationship barriers are likely to be especially critical in cultures in which norms demand interpersonal, physical interactions (e.g., handshaking) or base professional relationships primarily on trust. Prior research on buyer–seller relationships has underscored the importance of trust (Palmatier et al. 2006), which results from sustained interactions. Virtual interactions may be effective if trust already has been built, but tactics for creating trust without face-to-face interactions are untested. The loss of physical interactions, spontaneous water-cooler conversations, and other opportunities to socialize arguably could limit organizational community building and shift intra- and inter-organizational exchanges from relational to transactional in nature. Such research questions might be addressed in various ways, with text analyses of intra- and interfirm reviews and communications (Berger et al. 2019).

Innovation

Innovation often suffers during economic downturns, because firms cut investments in R&D and reduce new product launches (Dekimpe and Deleersnyder 2018, Kumar and Pauwels 2020). However, necessity also can be the mother of invention; in the wake of the COVID-19 crisis, innovation has accelerated, especially in relation to digital technology and e-commerce, as highlighted in several of our interviews. But it also has prompted new products (e.g., masks, health, and cleaning supplies) and has prompted record speed-to-market for newly released vaccines. Technological innovations, such as AI, digital technology, e- and m-commerce, and robotics, are all on the rise (Davenport et al. 2020). These trends create important opportunities

to investigate consumers’ price sensitivity for digital products and services. Price fairness perceptions depend on whether price increases are attributed to higher costs or a profit motive, and whether they are linked to value changes (Friedman and Toubia 2021). Thus, for example, sensitivity to delivery charges vastly diminished, because consumers saw increased value – relating not only to convenience, but also the safety of at-home delivery services. Consumers and businesses both purchased more products online in 2020 than ever before, and they might be buying in altered product categories, depending on whether they previously shopped online or not. Furthermore, COVID-19 has likely changed the utility in some categories (e.g., apparel), at least in the short-run (long-run to be determined).

Some brands have been (innovatively) engaging with their shoppers. For example, health and beauty firms have been participating and engaging with their customers in social media communities or by providing live-streamed events. Consequently, all these different innovations are spurring existing online shoppers into buying from more websites and/ or simply increasing their spending at websites they already purchased from.

TABLE 4
RESEARCH QUESTIONS – IMMEDIATE MARKETING CONSEQUENCES

Research gap	Specific research questions
Needs and ability to spend.	What impacts has COVID-19 had on vulnerable consumers, and how are they allocating their budgets to ensure they can meet lower-level needs? What are the implications for firms in terms of planning their product range?
Preferences and willingness to pay.	When and why will crises increase preferences for familiar or nostalgic brands and products versus unusual or atypical brands and products? What are implications for the management of private label versus national brands? Which analytical tools can help uncover how these effects emerge over the duration of the crisis?
	Crises such as COVID-19 provide an opportunity to study the interaction of the availability and depletion of multiple resources. Before–after and difference-in-difference analyses, using panel data

	sets that cover many geographies, could reveal how the scope or scale of a crisis progresses in different patterns. Combining such analyses with mobile data, demographic information, or political identity elements might provide a more comprehensive understanding of preference shifts.
Purchase and consumption behavior	Which changes in purchase and consumption behavior will emerge (e.g., shopping frequency, stockpiling, minimizing in-store duration and social interactions)? When and why do consumers shift to online shopping and delivery versus alternatives such as click-and-collect or curbside pick-up?
Supply chain and product availability	How can firms better predict and prepare for supply-side stressors (e.g., shortage of raw materials, shifts in length of product lines)? How does the firm's marketing affect demand-side stressors (e.g., shift in demand for some products, shifts from institutional toward retail channels)? How can needed investments in resilient supply chains be predicted and evaluated (e.g., real option analyses)?
Intra- and Inter-Firm Relationships	How can firms continue to function effectively and efficiently during crises (e.g., adjust centralization of decision-making, measure and manage organizational culture and employee well-being)? How do crises affect interfirm relationships across the relationship cycle (e.g., relationship initiation vs. maintenance)?
Innovation	When and why might crises increase or decrease organizational innovation? How might crises affect how consumers respond to innovations in the marketplace?

INTERVENING DYNAMIC PROCESSES

As a crisis abates, and the social system moves into a post-crisis phase, social actors engage in 'sensemaking' of their responses. Examining these dynamic processes can indicate whether changes initiate during the crisis will persist, decay, or accelerate to the next normal. We discuss some of these processes, by integrating evidence from both behavioral marketing research and quantitative marketing research.

Changed Needs, Pent-Up Demand, and Reactance

Once a crisis has passed, the associated financial, social, emotional, and other pressures may abate. This suggests a possible return to pre-crisis attitudes and behaviors, perhaps after an adjustment (or what is often called a “dust settling” period in quantitative time series modeling). Reactance driven behaviors may also emerge. Recall from our prior discussion that a direct manifestation of reactance is engaging in behaviors that restore freedom, such as regaining access to forgone options (Brehm and Brehm 2013). Thus, individual consumers, firm managers, and policy makers might be strongly attracted to behaviors that were restricted during the crisis (e.g., social interactions). Furthermore, a long-lasting crisis may reinvigorate people’s enjoyment of hedonic products and services.

Turning Points and Habit Formation

While some behaviors may revert to normal, others likely to exhibit a turning point toward a ‘new normal’. According to life course theory,⁸ a turning point involves “a transformation in how the person responds to risk and opportunity” and marks a lasting change to the life course trajectory (Hutchison 2018, p. 2144). Three types of life events tend to mark turning points (Rutter 1996), namely, those that (1) close or open opportunities, (2) cause lasting change, or (3) change the person’s self-concept, beliefs, or expectations. Events that exhibit all three of these characteristics are particularly momentous (Hutchison 2018). But turning points also require some willingness by the actors experiencing them to make the change, suggesting a salient role of compliance forms of meaning making. That is, actors that exhibit compliance may be more likely to experience a crisis as a turning point, and this may lead to lasting changes.

⁸ Grounded in a multidisciplinary (psychology, sociology, anthropology, social history) paradigm, this theory predicts how social, cultural, and historical circumstances in a person’s earlier life (e.g., adolescence) connect to individual (e.g., health, well-being) and family developments in subsequent stages of life (Elder, Johnson, and Crosnoe 2003, Hutchison 2018; also see Web Appendix A).

Those who exhibit compliance, might develop new habits through repeated experiences (Wood and Runger 2016; also see Web Appendix A). For example, if actors find relief from collective stress and reestablish their psychological resources during a crisis, the methods they used to do so are likely to become new habits.⁹ The new needs created by COVID-19 led many consumers to initiate repeated purchase processes for specific products (disinfectant, sanitizer, masks etc.) and brands, which could prompt new purchase habits.¹⁰

Attribution, Learning, and Feedback Effects

After a crisis has passed, consumers might engage in deliberate processing,¹¹ to persist in their efforts to address meaning violations due to the crisis. The lessons they learn depend on various factors, such as how they interpret and make meaning out of their experiences, how others react as normative information, and what outcomes arise. For example, they might seek to establish attributions for their own or others' behavior, related to the crisis characteristics, which then would inform their persistent purchase habits. If a family has gotten accustomed to using grocery delivery services, but then attributes that habit to necessity and lack of choice, rather than their preferences, this consumer behavior is unlikely to persist after the crisis has passed. People also learn from the content and consistency of marketing communications (e.g., Narayanan and Manchanda 2009), so their learning and subsequent habits may be differentially affected by information that is salient and easier to retrieve from memory (Camacho, Donkers, and Stremersch 2011). Similar models might reveal how organizations learn from the crisis and changed their behaviors.

⁹ In a longitudinal study of habit formation in a real-world setting, Lally et al. (2010) document that on average, new habits form in about two months (Mean: 66 days, Range: 18 to 254 days).

¹⁰ In the quantitative marketing literature, habit persistence is often studied in the category purchase and brand choice literature and modeled by serially correlated error terms. Closely related, but distinct, is the structural state dependence of purchase event feedback whereby the probability of buying something in period (t) is directly affected by whether or not it was purchased in the previous period (t-1).

¹¹ If sufficiently motivated, people engage in deliberate information processing (e.g., Evans and Stanovich 2013).

The extent to which these dynamic processes come into play will determine whether those changes endure post-crisis. For example, consider the revival experienced by legacy packaged goods brands like Campbell's soup, Kraft Heinz's Mac & Cheese, and Clorox cleaning products during the pandemic. Did such brands pick up sales because they filled changed needs for longer shelf-life products for at-home consumption, or because their supply chains were more resilient than those of smaller brands and therefore not out of stock as frequently, or because crisis-induced stress led consumers to choose familiar brands? Once people return to work and kids return to school, less time will be spent at home, more brands will return to supermarket shelves, and aversive emotions induced by the crisis will abate. Habits only persist when the cues and context are not interrupted. The changed circumstances of home, work, and social activity will interrupt the habit of spending time cleaning, cooking, and eating at home. Attribution may also work against these brands if consumers feel they bought these products during the pandemic because they needed to and not because they wanted to. So, unless some of the factors that led to increased sales during the crisis, sustain post-crisis, then sales of such brands may reduce.

By way of another example, consider the case of contactless payments, which increased substantially during the COVID-19 crisis. Even after the crisis, some convenience aspects of contactless payments may sustain, and so this behavior may well sustain post COVID-19 (Lee 2020).

LONG-TERM MARKETING IMPLICATIONS

After a crisis subsides and a next normal emerges, important implications arise, with long-term marketing relevance.

Technology Implications

The differential responses developed by individual consumers and firms in response to COVID-19 has spurred a variety of technological innovations to meet changing needs and

preferences in the marketplace. According to a futurist we interviewed, “COVID-19 has substantially accelerated technology (solutions),” driven by both demand-side and supply-side factors (Web Appendix B, I-13). From a demand-side perspective, consumers are likely to continue using new technologies (e.g., telemedicine, home delivery), consistent with models of technology acceptance (e.g., Venkatesh et al. 2003), as well as the real-world example in which ecommerce in China grew exponentially after the SARS crisis (Huddleston 2020). In the current setting, “virtual visits on telemedicine platforms have become the safe and convenient solution” (Kapur and Boulton 2020; also, Web Appendix B, I-14; Lee 2020), so after the crisis abates, technology advances in not just health domains but also online shopping, sales force reach, and online learning are likely to increase relative to the levels pre-crisis but might settle at levels lower than during the peak of the crisis. As a manifestation of such expectations, Lululemon recently acquired Mirror, a subscription-based home exercise service. This expansion is likely grounded in the prediction that consumers will continue home exercise subscriptions after the crisis; it also provides Lululemon with a novel opportunity to integrate its product line (e.g., yoga pants, sports bras, leggings) into its customers’ workouts (Mehta 2020). Similarly, a senior manager we interviewed in the cosmetics industry indicated that “we have really accelerated everywhere what we call our virtual try-on technology” (Web Appendix B, I- 9). She expects that consumer acceptance and use of these new technologies will persist after the crisis. A senior manager from a leading consulting firm also noted that “digital proficiency is now a matter of survival. Any company that hadn't embraced their digital transformation, any company that hasn't thought about a B2C channel if they have that opportunity, any company that hasn't really done that ... [is looking at] extinction” (Web Appendix B, I- 15).

It thus becomes critical for marketers to determine the conditions in which the creation and usage of crisis-induced technology innovations will persist post-crisis. As more service providers and receivers shift to doing business virtually, they have likely determined that some services can be effectively provided online, but others still may demand in-person interactions. Thus, some firms will return to in-person interactions, perhaps especially if they sell high value or niche products/services. However, we expect the post-crisis level of online business in these industries to be significantly higher than pre-crisis, but maybe lower than during the crisis.

Customer Journey Implications

The COVID-19 Crisis has changed many individual customer journeys', moving many (or all) of the journey elements online. We consider how crises such as COVID-19 affect three key phases of the customer journey: prepurchase, purchase, and post-purchase. In the prepurchase phase, the focus is how consumers interact with frontline employees; in the purchase phase, it is the expected impact for in-store shopping; and in the post-purchase phase, we note the delivery of goods.

Because COVID-19 has created the need to reduce social interactions, and many aspects of the customer journey have moved online. This shift has nudged consumers to minimize in-person interactions with frontline employees. As a result, sales personnel in some companies and sectors have increased their virtual contact with customers, using virtual chats, virtual tours, and live streaming. The use of chatbots to engage with customers also has dramatically advanced since the onset of the pandemic. These chatbots also offer companies the opportunity to create fun experiences, unique to the digital space. In addition, brands are modifying their relationship with influencers, partnering with them to create and share authentic video content on different platforms. We expect these changes are likely to persist after the pandemic.

Relatedly, COVID-19 has led to a substantial reduction in traffic in brick-and-mortar stores. Even before the pandemic, retailers had closed many physical stores and were reimagining their remaining physical footprint as distribution centers, low inventory showrooms, or expansive spaces focused on customer experience. Post-pandemic, it is likely that a smaller number of physical stores will thrive, since a segment of retail shoppers are likely to stick with the online shopping habits they formed. In addition, as technology makes the shopping experience easier (smart speaker shopping, social commerce) and more informative (AR-powered shopping experiences), the online shopping trend should increase. However, for some products (e.g., eyeglasses), consumers are likely to return to brick-and-mortar stores for the social experience, for the fit and feel, and because they may attribute their online purchasing during the crisis to external necessity rather than to their own preference.

As a result of increased online shopping, the onset of COVID-19 has also shifted how goods are delivered. As customers became hesitant to enter physical stores, one of our interviews noted that “household penetration of e-commerce and people participating in click-and-collect ... almost doubled during the crisis” (Web Appendix B, I-1). In parallel, this respondent indicated that demand for personal shopping services (e.g., Instacart) increased. Consumers have become used to ordering online from multiple vendors (Uber Eats and Grubhub for restaurant delivery; Walmart, Target, and Wayfair for various home goods; grocery retailers, Instacart, or others for curbside or home delivery). Having passed the initial hurdle of getting customers to open online accounts and provide payment information, online vendors may gain loyal customers.

The changing customer journey offers a multitude of research opportunities (see Table 5). One set of questions relates to understanding the prepurchase phase of the journey and understanding the best ways for brands to engage with customers when they are shopping online.

Retailers cannot use the same strategy of having salespeople casually interact with a customer as they would in a physical store. Effective sales processes (explanation and education, closing the sale, upselling) likely are needed to compensate for less frontline employee interactions. Another set of questions relates to the purchase experience. For example, how does the changed habit of making fewer trips to the store and stockpiling goods at home alter customer shopping baskets (amount and/or composition)?¹² In what industries will this behavior persist, and is it beneficial for certain industries to encourage it? Finally, questions relate to the post-purchase phase and the most effective delivery of goods. Many have suggested that the post pandemic recovery is an opportunity to ‘reset’ and build back better, into a world that has more equitable outcomes, is more sustainable, and is more inclusive (Schwab 2020). Consistent with this, post COVID-19, not only may there be a focus on online delivery, but also more sustainable packaging.

Organizational Implications

As organizations evolve over the course of a crisis, from rescuing or salvaging to surviving and thriving, they are like to undergo a broader readjustment of their strategy and establish new operational norms, not just immediate responses to the crisis. As a crisis evolves, firms have to assess their own communications and meaning making, as well as the actions of others, and note lessons for how they should balance their resources to protect their next normal while also ensuring adequate resilience to future crises (Boin, Hart, and Kuipers 2018).

In learning how to deal with crises, managers and scholars might benefit from a closer examination of high reliability organizations (HROs) (Weick and Sutcliffe 2007).¹³ These HROs

¹² Some statements by a senior manager in a market research firm indicated that basket size had apparently increased; Web Appendix B, I-20, I-21.

¹³ Due to the scale and scope of the negative consequences of any errors, HRO are largely unable to learn through experimentation or trial-and-error. Instead, they use mindful organizing to establish functional capabilities, even in deeply uncertain conditions (Weick and Sutcliffe 2007). Mindfulness refers to a collective mental orientation that continually aims “to detect and correct errors and to adapt to unexpected events before small factors develop into catastrophic failures” (Fraher, Branicki, and Grint 2017, p. 240).

are diverse in their contexts (e.g., nuclear power plants, aircraft carriers, hospitals) but all operate in unforgiving (social or political) environments that are rich with the potential for error, such that they prioritize reliability and resilience.

Related to the ability of the firm or organizations to manage and learn from events is the quality of human resources within an organization and its ability to apply lessons learned. As recently documented by Amirkhanyan et al. (2020), better managed nursing homes experienced relatively fewer deaths. In addition, an organization's forecasting ability can help it prepare for a crisis. For example, the Taiwanese government accurately forecasted the pandemic by looking at data coming from China (Lin 2020). In turn, Taiwan quickly increased mask production, instituted mask mandates, and implemented suitable quarantine policies. Finally, a key element for firms to be prepared for a crisis is the financial resources they have at their disposal. Our interview with the owner of a privately owned conglomerate indicated that its ability to tap credit lines was key to surviving the impact of COVID-19 (WA-B, I- 12). A senior manager at a fast-food franchise also discussed plans to assign more weight to financial strength assessments when screening franchisees, primarily with a view to becoming more resilient (Web Appendix B, I-7).

Supply chain resilience is also important (Singhal and Hendrick 2002). Firms that have resilient supply chains can more effectively capitalize on crisis-related opportunities. However, by definition, crises are unlikely events, so incurring substantial costs to establish a resilient supply chain can be risky, because the long-term payoffs (e.g., risk mitigation, capitalizing on crisis-triggered opportunities) are uncertain. There is thus a clear trade-off between investing in more resilient supply chains and ensuring firm profits (Pettit et al. 2010), and some managers appear to “have little interest in undertaking costly protective measures” (Kunreuther 2006, p. 40). We focus on factors like flexibility, control, and geographical spread which, if properly

implemented, can increase resilience.

Flexibility allows firms to be nimbler in responding to crises. For example, a senior manager of a cosmetics firm highlighted the importance of flexibility, in moving away from selling to salons and selling more through sales online or via grocery and drugstores (Web Appendix B, I-9). A fast-food senior manager asserted that franchises with drive-through operations were better equipped to deal with COVID-19 pressures, due to their fit with social distancing protocols (Web Appendix B, I-16). Collectively, these interviews highlight the important role of alternate distribution channels in terms of reducing crisis-related disruptions.

Another important aspect of the supply chain is the level of *control* a firm exerts, typically reflected in the extent of an entity's vertical integration. One senior manager in the RV industry that we interviewed explained that his firm was able to sustain (and even ramp up) production, to deal with increased demand, because it maintained a substantial degree of vertical integration (Web Appendix B, I-17).

Finally, *geographic spread* of supply chains is important to reduce risk. Many firms have established global supply chains, primarily for cost reasons, that have been significantly impacted by closures and travel bans, as well as concomitant political tensions between nations (Rindfleisch and Kim 2021). For example, in response to COVID-19, some consumers and governments have expressed discomfort with overreliance on production facilities in China, leading some firms to consider broadening their supply chains to other locations (e.g., Mexico, Vietnam, India) (Loeb 2020). According to a senior manager of a conglomerate, even if such options are more expensive, they can make organizations more resilient (WA-B, I-12),

Crises such as COVID-19 thus invoke several important organizational-related research questions (Table 5). One set of questions relates to how insights from HROs can help build

resilience. A second set relates to identifying other organizational elements that may contribute to building resilience. There is also the overarching question about whether firms should invest in building resilience in the first place. Finally, we need a more nuanced understanding of the ability of the supply chain in different industries to be flexible, as well as a richer understanding of how firms can exert greater control over their supply chains, especially if they are geographically dispersed.

Public Policy Implications

Crises require coordination among governments, organizations, and citizens to ensure safety, security, and stability. Governmental systems and policies shape the nature and extent of government–organizational collaboration during crisis preparation, response, and recovery. As a matter of policy, governments may design frameworks and incentives that encourage consumers and companies to take preemptive steps and build resilient capabilities prior to a crisis, then leverage these capabilities during the response and recovery stages (Berry and Stuart 2021).

Governmental policies at the federal, state, and local levels can promote health and safety, across all stages of a crisis: pre, during and post. Their proximal actions and corresponding challenges can be addressed more effectively by government in partnership with organizations. For example, to protect essential frontline employees during a crisis such as the COVID-19 pandemic, Berry and Stuart (2021, p. 93) propose a “strong, trust-based public-private partnership that helps maintain essential workers’ health and safety, thereby strengthening the national infrastructure that bolsters population-wide well-being.” This approach would require identifying and implementing safety measures for frontline workers (e.g., hospital cleaning staff), particularly those from vulnerable populations.

During a crisis, communication of accurate information can be of vital importance. Unfortunately, the uncertainty associated with COVID-19 has amplified allegations of “fake news” (Pomerance, Light and Williams 2021), and such negative attributions reduce the credibility of information sources, as well as compliance with behaviors recommended by those sources. Regarding post-crisis behaviors, some evidence suggests that COVID-19 has reduced concerns about privacy and garnered support for governmental monitoring; a recent survey indicated that over 50% of respondents expressed willingness to share personal data with an external entity to track infections (Vautier 2020). However, these attitudinal shifts appear to be moderated by individual norms and political identities (Cakanlar, Trudel, and White 2020).

Governments can coordinate with firms in multiple configurations (Berry and Stuart 2021; Schneider 2018; also see Web Appendix B, I-18), but these configurations have received scant attention in marketing. Thus, research is needed to assess the effectiveness of these various configurations for both firms and consumers.¹⁴ Research also is needed to understand the impact of governmental responses on consumers and marketers, and then how these responses shape their relationships with and reliance on the government in future crises. In addition, policy makers (in coordination with organizations) need to better understand motivations, effects, and countermeasures to the spread of disinformation to better address future crises.

¹⁴ For example, during the COVID-19 pandemic, U.S. federal agencies established recommended safety practices to promote public health, such as staying at home, practicing social distancing, hand washing, and using face masks (CDC.gov). But state-level government agencies determined the extent to which those recommendations would be mandated and enforced, creating inconsistent policies for national firms.

TABLE 5
RESEARCH QUESTIONS – LONGER-TERM IMPLICATIONS FOR MARKETING

Research gap	Research Questions
Technology Innovation	
Demand-side factors	Which factors will result in greater acceptance of new technologies in times of crises? Is there greater acceptance in domains that are more frequently used (e.g., online shopping) or more critical (e.g., medical services)?
Supply-side factors	Which factors may prompt technology investments? Are there greater investments in domains which are more frequently used (e.g., online meetings) and for which there is relatively more demand (e.g., online shopping, medical services, online meetings)
Interactions among the factors above	What factors may accelerate the impact of demand-side or supply-side factors? Do crises merely bring forward technology advancements, rather than create new routes for technology advancement?
Sustaining technology advancements post-crisis	Which technology advancements will persist post-crisis, and why? Would this be more linked to technology advancements that were already in the works, or more linked to new types of technology advancements? How does this link to demand side forces?
Customer Journey Implications	
Pre-purchase impact on frontline employees	How can firms replicate some (all) of the benefits of frontline sales employees for consumers reticent about visiting stores (or spending time in stores)? What kind of technology-mediated solutions need to be developed? What are downstream impacts of personal shopping services? Will personal shoppers – in time - know more about customers’ needs than retailers?
Purchase impact on customer baskets	With fewer shopping trips, will basket sizes increase? Will there be a shift toward products with bulk packaging? Will shopping baskets change (by day of the week)? What is the impact on the supply chain? On stock-outs? How should promotions be managed? Will the revival that legacy brands have experienced during the pandemic endure post-crisis? Will luxury brands survive (or even thrive) by positioning themselves as acceptable luxury in a time of economic anxiety? Will consumers’ willingness to pay for home delivery of goods and services (e.g., via home delivery, video streaming) persist past the pandemic? How should their value be communicated?
Post-purchase impact on delivery of goods	What methods of transportation will be used by different companies for the delivery of goods (beyond the distribution mechanisms already in place)? What types of packaging may be more sustainable, and yet meet other, extant criteria, especially economic criteria? Is there any potential for premium pricing, conditional on sustainable packaging?

Organizational Preparedness

HROs	What are some key lessons from HROs that can be relevant for marketing, in terms of building resilience? How might HRO processes (e.g., preoccupation with preventing failure, building in redundancy) apply to building resiliency with marketing-related capabilities?
Organizational resilience	Beyond human resource quality, organizational memory, and forecasting ability, what are factors may contribute towards building marketing-related resilience?
Supply Chains	How can supply chains become more flexible? What industry factors will contribute to this ability? How can firms exert greater control over their supply chains, especially if they are geographically dispersed? How do firms make suitable decisions about whether or not to become more flexible?

Public Policy Implications

Government / Organization Coordination	What makes different types of government-organization coordination during crisis more effective and efficient? What are the drivers of specific meaning making responses in this coordination?
Disinformation during Crisis	What factors affect the spread of disinformation? What is the best way to counteract this?

CONCLUSION

Over the past year, COVID-19 has triggered widespread public health, economic, and societal concerns. Despite the global nature of this crisis, its impact on and the responses of individual consumers, firms, and governments have varied widely. Building from theories across a wide variety of disciplines, and from in-depth interviews with nearly 20 senior executives, this review offers an integrative framework for understanding the response of individual consumers, companies, and governments to crises such as COVID-19, as well major drivers of heterogeneity in those responses.

Our proposed framework contributes to marketing thought and practice in multiple ways. First, it presents an integrative view of how individual consumers, organizations, and governments behave and interact in response to crises and shocks in their environments. Second, our inquiry connects with organizational reality by leveraging in-depth insights from senior managers across a wide array of industries, including education, fast-food, healthcare, logistics,

retailing, beverages, consumer packaged goods, market research, fitness services, cosmetics, and ridesharing (see Web Appendix B).

Finally, the integrative nature of our research across disciplines, decision-making entities, marketing issues, and industries reveals new directions for research (see Tables 1, 3, 4 and 5). These research directions are novel and reflect an exploration of various important but understudied topics. They promise to enrich marketing's understanding of the theoretical mechanisms that marketers can employ to survive and thrive in an increasingly crisis-laden world.

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APPENDIX 1
ILLUSTRATION OF FRUITFUL THEORIES AND SELECTED LITERATURE *

Theory and Illustrative Literature	Description and Application
Attachment Theory Mende, Bolton, Bitner (2013); Mikulincer & Shaver (2007)	<ul style="list-style-type: none"> • The proximity of attachment targets (e.g., people, places, companies) promotes feelings of safety and security (Mende, Bolton, & Bitner 2013; Mikulincer & Shaver 2007). Crises (i.e., times of need) make attachment needs salient, shaping cognition, affect, and behaviors. • Attachment theory suggests that some consumers might form particularly strong attachments to brands in times of need (e.g., periods of Maslowian shocks); brand loyalties formed during the COVID-19 might well last beyond this crisis, driven by consumer's attachment styles.
Coping Theory Duhachek (2005)	<ul style="list-style-type: none"> • Consumers' perceived self-efficacy influences how they cope with a stress-inducing threat. Consumers with lower self-efficacy tend to cope through avoidance; those with higher self-efficacy seek emotional support and engage in active coping strategies (Duhachek 2005). • In a crisis, consumers in vulnerable or marginalized groups may require interventions to heighten their sense of self-efficacy. Consumers with higher self-efficacy may need emotional support and tools to facilitate active coping (e.g., governmental distribution of masks).
(Situational) Crisis Communication Theory (SCCT) Coombs (2004); Coombs (2007)	<ul style="list-style-type: none"> • SCCT draws on attribution theory and proposes that in order to make sense of a focal crisis, people will make attributions about its causes and responsibilities (e.g., citizens will make attributions about how companies and governmental actors behaved during the pandemic). • Companies can use SCCT to assess reputational threats (e.g., based on the firm's initial crisis response and prior reputation) and to plan their communication strategy (Coombs 2004; 2007). SCCT helps categorize different types of crises that suggest distinct communication strategies.
Habit Formation and Learning Evans & Stanovich (2013); Lally et al. (2010)	<ul style="list-style-type: none"> • Consumers adopt new habits via repetition and goal attainment, until they are automatic, and via deliberate information processing (Lally et al. 2010; Wood & Runger 2016). • During the preparation stage of crisis management, to reduce the crisis' impact, consumers can develop habits and learn strategies in advance to increase safety and security during a crisis (e.g., checking first aid supplies, identifying government resources).
Life Course Theory Elder, Johnson, & Crosnoe, (2003); Hutchison (2018)	<ul style="list-style-type: none"> • Life Course Theory (LCT) examines how circumstantial, cultural, and historical contexts in life influence individual and family development (Elder, Johnson and Crosnoe 2003). Thus, it can help explore if and why a crisis elicits long-term effects on individuals. • Life events involving major, abrupt changes require adaptation and can produce serious, long term cohort effects (Hutchison 2018). COVID-19 creates cohort effects via formative events (e.g., starting college in lockdown, cohorts of people who lost family members to COVID-19).
Meaning Making Theories Park (2010); Proulx & Inzlicht (2012); Maitlis & Christianson (2014)	<ul style="list-style-type: none"> • Meaning (sense) making theories provide platforms to conceptualize crises as meaning violations and to examine how people respond to such violations through meaning making / maintenance. (e.g., see Park 2010; Proulx & Inzlicht 2012). • Meaning making theory links to other theories on compensatory responses (e.g., compensatory control theory, compensatory conviction perspective, system justification theory, terror management theory; Proulx & Inzlicht 2012). A sense making perspective is fruitful regarding consumers, and employees in organizations (e.g., Maitlis & Christianson 2014).
Reactance Theory Brehm & Brehm (2013)	<ul style="list-style-type: none"> • Reactance Theory posits that when freedoms are threatened, individuals are motivated to restore the lost freedom (Brehm & Brehm 2013). When crisis response policies require restriction of freedoms, individuals may feel reactant to policies requiring behavioral changes. • During the pandemic, this manifested in consumers, organizations, and governments refusing to comply with public health policies such as social distancing and mask wearing.
Resource Theory Barney (2018); Dorsch, Törnblom, & Kazemi (2017); Kendra, Clay & Gill (2018); Perry (2018)	<ul style="list-style-type: none"> • Organizational, governmental, and individual resources determine the ability to withstand stress (e.g., Barney 2018; Dorsch et al. 2017). Preparedness (planning, warning systems, response), resilience (recovery, future mitigation), and vulnerability (conditions linked to the magnitude of disruption) may be determined by which resource configurations are available and utilized (Perry 2018; Kendra et al. 2018).

*Web Appendix A provides further details on these theoretical perspectives.

APPENDIX 2
LINKAGE BETWEEN INTERVIEW LEARNINGS* AND ELEMENTS IN OUR MODEL

		Meaning violation	Meaning Making	Resources and Resilience	Norms and Identities	Immediate Marketing Consequences	Intervening Dynamic Processes	Longer-term Marketing Implications
1	Beverage firm	x	x					
2	Ride-share firm		x					
3	Dean, US university		x					x
4	Gym franchise		x	x				
5	Conglomerate			x				x
6	President, US university			x				
7	Fast food firm		x			x		x
8	Beverage firm	x	x					
9	Cosmetics firm		x		x	x	x	x
10	Grocery chain, Europe		x					
11	Logistics firm		x			x		
12	Research firm							x
13	Futurist							x
14	Healthcare firm	x	x					
15	Consulting firm		x					x
16	Fast food firm		x			x		
17	RV firm		x	x				
18	Provost, US university		x					x
19	Software firm							x
20	Research firm		x					
21	Grocery chain, UK		x				x	

*More details in Web Appendix B