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Helping consumers weather the storm: the impact of consumer-targeted resiliency programs on firm value

Structured Abstract

Purpose: With the goal of helping consumers bounce back from the financial challenges they faced as a result of the COVID-19 pandemic, many firms developed and announced consumer-targeted resiliency programs (e.g., Walgreens waived delivery fees, Associated Bank allowed deferred mortgage payments). However, there is a paucity of research examining the unique features of these programs, and whether firms' investors (the first external stakeholder group to provide them with feedback regarding their strategies) were receptive to these programs during a period of time in which firms themselves were suffering financially. Drawing on resilience theory and stakeholder theory, the present research incorporates an event study of consumer-targeted resiliency program announcements to understand their financial implications for firms, and to learn whether firms witnessed different financial effects as a result of firm- and program-specific factors.

Design/methodology/approach: We referred to business news publications and newswire services to collect a comprehensive list of consumer-targeted resiliency programs announced by publicly traded U.S. firms during the pandemic. Our resulting dataset consists of 145 announcements made during the period of February – June 2020. We then conducted an event study in order to precisely measure the main effect of consumer-targeted resiliency programs on firm value, as manifested through abnormal stock returns. Finally, we conducted a moderation analysis (regression) to uncover whether firm characteristics or specific features of firms' consumer-targeted resiliency programs lead certain firms to witness stronger financial effects than others.

Findings: We find the main effect of consumer-targeted resiliency programs on firm value to be positive – a 1.9% increase on average. Our moderation analysis finds that non-financial firms were rewarded more positively than financial firms (e.g., banks and credit card companies). In addition, financial aid (i.e., allowing customers to defer their payments to a firm for its products/services, versus a reduction in the price of a product/service or offering it for free or giving cash back to customers) and temporal characteristics (i.e., an offer being framed as limited-time, versus being indefinite or for the foreseeable future) are not found to have a moderating effect.

Originality/value: This theory-driven empirical study uncovers practical implications for managers of firms interested in whether investing in corporate social responsibility during times of crisis is a wise allocation of resources. Any form of financial aid for consumers, regardless of temporal limitations, is received positively by investors.

Keywords: consumer-targeted resiliency programs, corporate social responsibility, CSR, COVID-19 pandemic, event study, firm value, marketing-finance interface

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Introduction

According to Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), the COVID-19 pandemic was not just a public health crisis. It was an unprecedented global crisis that led to a multitude of losses and irreversible, negative psychological and economic consequences, touching almost every sector and affecting businesses, communities, and consumers (Ducharme, 2020; Borio, 2020). Due to the pandemic, many consumers became extremely vulnerable and were left to deal with health-related threats, reduced social interactions, unprecedented changes to normal ways of life, and a gloomy financial future (Yazdanparast and Alhenawi, 2022). These pressures were even higher for those who got furloughed or laid off (Yao and Zhang, 2023). Moreover, those who were already vulnerable before the pandemic (physically or economically) faced even more risks and uncertainties with regards to their health, income, safety, and overall well-being (Kulshreshtha *et al.*, 2023).

In response to these vulnerabilities, the U.S. government passed the CARES Act which offered stimulus payments to consumers to help them weather the storm. Many *firms* also recognized consumer adversities and introduced initiatives aimed at helping their employees, customers, and communities, through resiliency programs. These firms announced a variety of programs to allow consumers to protect their finances and be resilient. For example, Comcast waived data overage charges, United Airlines allowed customers to cancel their flights with no fees and re-book for a later date, Anthem waived insurance co-pays and charges for telehealth visits, Chipotle offered free food delivery to customers, Wells Fargo offered fee waivers and loan payment deferrals, Duke Energy allowed customers to defer energy payments and promised not to cut customers' power if they could not pay their bills, and Progressive credited customers back for

their car insurance premiums. Additional examples of resiliency programs are provided in Table I.

[Insert Table I here]

Regardless of the specifics of these programs, it could be argued that they were in line with, and contributed to, firms' corporate social responsibility (CSR) efforts. According to Carroll (1979), CSR constitutes a range of firms' obligations to society which embodies the economic, legal, and ethical categories of business performance. CSR is a discretionary allocation of corporate resources to improve social welfare that serves as a means of enhancing relationships with key stakeholders (Barnett, 2007). Rising social expectations since the second half of the 20th century have brought CSR initiatives to the spotlight (Tosun and Köylüoğlu, 2023). In addition, organizations are increasingly expected to develop proper CSR initiatives to incorporate social values into their operations during times of crisis (He and Harris, 2020).

The sensitive and turbulent situation, in addition to unprecedented changes and challenges, during the pandemic presented prime circumstances for firms to introduce and implement CSR initiatives (Zhang and Wang, 2022). Thus, consumer-targeted resiliency programs (hereafter referred to as CTRPs) aimed at supporting consumers during the pandemic are examples of CSR initiatives that should encompass a win-win strategy for firms. CTRPs provide firms with the opportunity to deliver social benefits that can fuel consumers' survival during the COVID-19 pandemic and help them overcome the crises they face, while enhancing firms' image, reputational capital, and ultimately performance.

Prior research has provided some evidence for the positive impacts of CSR initiatives for socially responsible firms, including increasing customer satisfaction (Randle *et al.*, 2019), loyalty

(Muniz *et al.*, 2019), identification with the firm (Becker-Olsen *et al.*, 2006), trust, corporate and brand reputation, brand preference, and purchase intentions (Kim and Woo, 2019). These outcomes are expected to contribute to a firm's value, but stock price movements due to CSR initiatives are not directly assessed. Furthermore, research focusing on pandemic-induced CSR programs aimed at supporting consumer resiliency is limited, and little is known about firm value outcomes following such initiatives during a global crisis. More specifically, the research focusing on the effects of CSR initiatives during the pandemic is limited in scope (e.g., focusing on safety and hygiene practices to protect customers against infection; Wen *et al.*, 2021; Lu *et al.*, 2021), context (e.g., generally, focusing on the hospitality sector or retail banking; Qiu *et al.*, 2021 and Tosun and Köylüoğlu, 2023, respectively), or generalizability (e.g., experimental design, fictitious scenarios, or limited sample size; Tosun and Köylüoğlu, 2023). Moreover, the results are not conclusive, with some research reporting no evidence for the effect of CSR on stock returns (Bae *et al.*, 2021), and some reporting positive (Qiu *et al.*, 2021) or less favorable returns for such activities during the pandemic (Bahmani *et al.*, 2023).

Overall, it is not clear whether CTRPs announced during the COVID-19 pandemic can be credibly perceived as value-enhancing investments that meet stakeholders' demands (Bae *et al.*, 2021). Furthermore, prior research has not comprehensively analyzed whether these programs were positively received by the market as indicated by firm value (i.e., stock price) changes. Such an examination is crucial, since CSR initiatives are typically encouraged to improve and sustain long-term corporate financial performance (Flammer, 2013; Feng *et al.*, 2018), while the viability of investing in CSR initiatives during times of crisis remains controversial. While a firm's image could benefit from CSR activities that satisfy different stakeholders (Franco *et al.*, 2020; Rhou and Singal, 2020) and contribute to favorable evaluations in capital markets (Flammer, 2013; Madsen

and Rodgers, 2015), according to the slack resource hypothesis, CSR activities often incur substantial costs that can undermine the financial well-being of the firm under the weight of economic crises or natural disasters (Lee *et al.*, 2013). This could result in firms being undervalued in capital markets. So, while CTRPs during the pandemic could help consumers be resilient and lead to positive firm outcomes, firms were under extreme financial pressure (e.g., March 2020 marked the largest crash of the stock market, and firm value, in history) and had no guidance as to whether *doing the right thing* for consumers was mutually beneficial. Moreover, prioritizing their own survival by reducing expenses and preserving cash flow might have been more positively received (Bahmani *et al.*, 2023).

To address this dilemma, the present research draws on resilience theory and stakeholder theory and follows an event study approach to understand whether firms were rewarded or penalized for announcing CTRPs. Resilience theory addresses the strengths that individuals and organizations demonstrate, which enable them to rise above adversities (Greene *et al.*, 2004). Stakeholder theory indicates that a firm should protect the interests of its stakeholders, who can affect, or are affected by, the activities of the firm which achieve its mandatory organizational objectives and voluntary social welfare motives (Freeman, 1984). Indeed, investors represent a firm's first external stakeholder group, giving their feedback (in response to a firm's public announcements) by immediately injecting their positive (or negative) perceptions of the firm's initiatives into the market, by buying (or selling) the firm's stock and thereby directly affecting firm value. Thus, the event study approach is warranted given its focus on measuring the precise effect of an announcement on a firm's stock price (Casado-Diaz *et al.*, 2009).

Additionally, a review of firms' CTRP announcements during the pandemic indicates that their resiliency programs varied in design in terms of financial (i.e., some offers just deferred when

consumers would pay back the firm for its products/services, while others reduced prices or offered products/services for free or gave cash back to consumers) and temporal (i.e., some offers were framed as being limited-time, while others were introduced as being indefinite/for the foreseeable future) characteristics. Moreover, they were offered by firms in diverse industries with inherent differences in expectancy likelihood of offering financial support programs (i.e., some offers were made by financial firms which are more expected to provide financial support programs, while others were offered by non-financial firms such as healthcare and consumer product/service companies). Given the various financial commitments imposed on the firms offering these programs, CTRPs could be perceived differently by consumers and trigger differing responses from investors. To this end, we conduct a moderation analysis (regression) to learn whether certain program- or firm-specific factors led some firms to witness stronger financial effects than others.

Across a sample of 145 CTRP announcements made by publicly traded U.S. firms, our event study uncovers an overall positive effect. On average, firms that made a CTRP announcement witnessed a 1.9% increase in firm value. Thus, investors were extremely receptive to firms designing programs focused on helping consumers. Our moderation analysis results indicate that investors did not treat financial and temporal differences of the resiliency programs differently. Thus, regardless of whether a consumer is tangibly saving money, or just paying the firm back later, investors rewarded firms equally. Moreover, any effort to help consumers was rewarded, regardless of whether it was short-term or long-term in nature. However, we find that non-financial firms were rewarded more positively than financial firms.

Our work contributes to literature in several ways. First, our study contributes to CSR research by focusing on pandemic-induced resiliency programs and examining their value to firms as indicated through stock market performance. Second, by linking resilience theory and

stakeholder theory, the study expands resilience research and highlights the performance-based value of resiliency programs that support consumers. Third, our study examines these effects following event study methodology, an approach that has rarely been employed to examine firm responses to the COVID-19 pandemic to provide results that are generalizable beyond a specific firm or even industry sector.

In the remaining sections, we first discuss extant pandemic research and draw from resilience theory and stakeholder theory to develop our hypotheses. Next, we detail our data collection process and the event study methodology. This is followed by a discussion of the results of our analyses, which consist of the event study, a moderation analysis, robustness checks, and several additional analyses. We conclude with a discussion of the implications of our work and directions for future research.

Literature Review

Literature on the pandemic's economic impacts has taken four main routes. The first route focuses on macroeconomic issues that include a wide variety of topics such as oil prices and economic policy (Sharif *et al.*, 2020), government interventions (Ashraf, 2020), specific impacts of the pandemic on certain industries such as banking and insurance (Goodell, 2020), and global trade (Vidya and Prabheesh, 2020). The second route analyzes the pandemic's impacts at the micro level, focusing on consumers' responses to pandemic adversities. For example, Kirk and Rifkin (2020) argued that individuals' reactions to the pandemic can be classified into three consecutive phases: rejection, coping and adapting. Yazdanparast and Alhenawi (2022) examined

the factors affecting consumer vulnerability during the pandemic and the consequent effect on consumption decisions. Alhenawi and Yazdanparast (2022) focused on financial vulnerabilities experienced by households across four different countries and assessed individual and cultural factors that affect these experiences and consequently impact households' financial intentions.

The third route focuses on the reactions of financial markets during the COVID-19 pandemic. Researchers have examined the behavior of certain assets such as cryptocurrency (e.g., Mnif *et al.*, 2020), focused on the behavior of certain investor classes (e.g., Welch, 2020), and analyzed broad financial market movements. For example, Baker *et al.* (2020) evaluated the unprecedented stock market reactions to the COVID-19 pandemic and argued that government restrictions on commercial activity and voluntary social distancing were the main reasons the U.S. stock market reacted so much more forcefully to COVID-19 than to previous pandemics.

The fourth group of studies focuses on the outcomes of firms' policies, initiatives, and characteristics during the COVID-19 pandemic and examines consumer or investor reactions. For instance, Tosun and Köylüoğlu (2023) examined the impact of brand origin and CSR actions on consumer perceptions and found positive relationships. Bahmani *et al.* (2023) examined the overall stock market response to fiscally conservative versus socially responsible approaches taken by firms during the pandemic and found that investors preferred firms that pursued fiscally conservative strategies. Bae *et al.* (2021) studied the relationship between firm-level ESG ratings and stock market returns before, during, and after the COVID-19 pandemic and could not establish significant effects.

Thus, while extant research has examined the reactions of financial markets to the pandemic, it has not systematically explored the responses to CSR initiatives during that period. This is evident by limited research focusing on this topic and their contradictory results, which

could be due to a lack of specificity in the CSR initiatives studied (e.g., a lack of focus on pandemic support resiliency programs) and a failure to account for firm-specific and program-specific factors that could affect how well they were received. A review of the research examining the effects of CSR initiatives on firm performance during crises (not specific to the COVID-19 pandemic) also reveals a lack of consistency in results. Some researchers indicate that CSR actions during the 2008-2009 financial crisis built trust between firms and their stakeholders and resulted in positive stock return outcomes for the firms (Lins *et al.*, 2017), while Chintrakarn *et al.* (2021) question the true motivation behind CSR investments during crises and mention that managers' own risk preference may be a factor. Yet, others (e.g., Buchanan *et al.*, 2018) argue that compared with non-CSR firms, CSR firms have higher firm values before the financial crisis but experience more loss in firm value during the crisis. These results further warrant our examination. The present research, thus, focuses on the stock market responses to CTRPs offered by firms during the pandemic and examines the differences in how (and by whom) these programs were designed (i.e., financial aid framing, temporal limitations, and firm type).

Resilience theory and consumer resilience

Resilience theory embodies a multifaceted field of study that has been addressed by social workers, psychologists, sociologists, educators, and many others over the past few decades (Van Breda, 2018). However, there is little research on this topic in the marketing discipline (Rew and Minor, 2018). The emergence of resilience theory is associated with a reduction in emphasis on pathology and an increase in emphasis on strengths (Rak and Patterson, 1996). Even though resilience theory has been evolving over the last 70 to 80 years, it has experienced a renaissance in the past two or three decades, and what started as an enquiry into the childhood roots of resilience has grown into a broad, dynamic, and exciting field of study. In short, resilience theory

addresses the strengths that people and systems demonstrate that enable them to rise above adversity. Resilience theory currently addresses individuals, families, communities, workplaces, and policies.

Resilience has gained increasing attention as a fundamental construct to disaster preparedness, emergency response, and crisis recovery (Liu *et al.*, 2023). The American Psychological Association defines individual resilience as the process of adapting well in the face of adversity, trauma, tragedy, and threats, as well as other significant sources of stress such as problems related to family and relationships, health, work, and finances. In other words, consumer resilience is the ability to bounce back from stress and traumatic conditions (Southwick and Charney, 2012; Yadav and Shaikh, 2023). As such, consumer resilience is considered to be a key factor in improving individual well-being with an essential role in the decision-making process in turbulent times (Milaković, 2021).

Disruptions in daily consumption routine induce consumers to change their consumption needs, wants, attitudes, and behaviors, consequently leading them to be actively open to new lifestyles and changes in consumption patterns (Andreasen, 1984). Especially in unstable market conditions, consumer resilience may play a relevant role, not only in the formation of consumer attitudes, but also in improving consumer well-being (Scoloveno, 2015). Overall, resilience is the capacity to respond in healthy and productive ways when faced with adversity or trauma (Reivich and Shatté, 2003). This capacity is a given ability that enables consumers to find ways to fulfill their needs and wants. According to resilience theory, resilience emerges from a set of capacities, capturing available resources that possess dynamic attributes of robustness, substitutability, and accessibility (Norris *et al.*, 2008). Such resources may include financial capital (which may be used for purchasing temporary provisions, paying overtime for medical personnel, directly

supporting families, etc.), facilities (e.g., hospital beds), technology (e.g., digital platforms), knowledge (e.g., health care workers' competence), and social capital (e.g., social ties and networks), among others (Krasnikov *et al.*, 2022).

The CTRPs offered by firms during times of crisis (e.g., the COVID-19 pandemic) are chief examples of ways to develop the required capacity. These programs are aimed at helping consumers gain resilience, adjust to adverse circumstances caused by crises or shocks affecting the equilibrium, and sustain constructive changes for a longer time (Milaković, 2021). Indeed, socially responsible marketing actions, as CSR initiatives, can improve resilience by helping consumers return rapidly to their normal life after they have been exposed to traumatic events (Rew and Minor, 2018). While CSR initiatives are typically expected to improve and sustain long-term corporate financial performance (Flammer, 2013; Feng *et al.*, 2018), the viability of investing in resiliency programs during times of crisis remains controversial, as investors may prefer strategies focused on prioritizing firms' own survival and preserving cash (Bahmani *et al.*, 2023) rather than programs that result in additional costs. To better address this dilemma, we draw on stakeholder theory.

Stakeholder theory and CSR

Drawing on corporate planning, systems theory, and corporate social responsibility literature, stakeholder theory or stakeholder thinking (Freeman, 1984) has emerged as the leading narrative to understand and remedy three interconnected business problems (i.e., understanding how value is created and traded, the problem of connecting ethics and capitalism, and the problem of helping managers think about management such that the first two problems are addressed; Parmar *et al.*, 2010). Stakeholder theory strives to offer a pragmatic approach to strategy that urges organizations to be cognizant of stakeholders to achieve superior performance. A stakeholder is

an individual or a member of any group with influential power to affect survival and success, such as shareholders, business partners, employees, suppliers, customers, local communities, non-government organizations, and government officials (Freeman, 2004).

Stakeholder theory is regarded as a primary framework to explain CSR (Francis *et al.*, 2019; Pfajfar *et al.*, 2022). According to the theory, organizations need to consider their stakeholders with a holistic perspective and develop appropriate CSR strategies that incorporate societal obligations (Freeman and Phillips, 2002; McDonald and Lai, 2011; Kim *et al.*, 2021). An organization's success depends on effectively managing relationships with its stakeholders, who can be defined as the key individuals or groups that can influence or be influenced by the pursuit and achievement of firm goals (Freeman and Phillips, 2002). Thus, implementing CSR has become a strategic tool for building relationships with consumers and other stakeholders (McElhaney, 2009; Pfajfar *et al.*, 2022), since CSR perceptions influence stakeholder behavior (Becker-Olsen *et al.*, 2006; Alcañiz *et al.*, 2010) such as the commitment of customers (Shah and Khan, 2020).

According to stakeholder theory, CSR is financially valuable for shareholders because of its positive effect on consumers and other key stakeholders (Luo and Bhattacharya, 2006). The theory underscores the notion that firms should balance the needs and aspirations of all stakeholders, not just shareholders, to create competitive advantage. The key tenet here is that by catering to different stakeholders, firms improve their overall performance, which eventually translates into higher shareholder wealth. Also, because CSR provides organizations with the means to address stakeholder expectations of social responsibility (Sen *et al.*, 2006), research has shown that it generates favorable corporate images and associations among stakeholders (Bhattacharya and Sen, 2003). Such positioning advantages allow for valuable resources that are inimitable, non-substitutable, and heterogeneously distributed across firms (Sen *et al.*, 2006),

therefore suggesting a positive effect of CSR on shareholder wealth (Mishra and Modi, 2016). This is in line with Lu *et al.* (2021) who found that when firms are facing high levels of risk, CSR performance leads to a market premium.

During crises, firms are expected to be responsible and accountable to their stakeholders (Mahmud *et al.*, 2021). In such situations, some companies may avoid CSR activities due to severe resource shortages and increasing uncertainty in the macroeconomic environment. This is in line with research questioning the viability of CSR initiatives due to their resource requirements (McWilliams and Siegel, 2001) which could detract from firms' core business improvements (Wang and Bansal, 2012). Some firms, however, develop CSR programs to support consumers and contribute to society (e.g., making voluntary donations to social causes, corporate charitable giving for disaster relief, and donating medicines to fight HIV/AIDS; Miras-Rodriguez, 2013; Muller *et al.*, 2014). According to stakeholder theory, such actions can create favorable stakeholder attitudes, result in enhanced employment, purchasing, and investment opportunities, and even strengthen stakeholders' company identifications, uphold corporate image, and shape stakeholders' advocacy and socially responsible behaviors in the long run (Mugova *et al.*, 2017).

Within this context, the present research suggests that firms' CTRPs during the pandemic are recent examples of CSR initiatives that help consumers while signaling firms' sense of responsibility to their stakeholders (Dmytriiev *et al.*, 2021). Strong pressure of survival and lack of disposable resources during the pandemic served as a testing mechanism to evaluate the genuineness of companies' CSR strategies, and those with genuine CSR could build stronger social capital. In fact, in times of crisis, such as the recent COVID-19 pandemic, firms that implement and communicate resiliency programs can be seen as solution partners (Tosun and Köylüoğlu, 2023), enhance their image, and consciously lower financial pessimism in society and among

consumers, which could result in more favorable stock price movements. Extant research examining the effect of COVID-19-related CSR initiatives (e.g., Mahmud *et al.*, 2021), though, has not directly assessed whether such outcomes are rewarded by shareholders. Investors are firms' first external stakeholders to provide them feedback, by immediately reflecting their positive (or negative) perceptions of firms' initiatives into the market by buying (or selling) firms' stocks and thus, directly affecting firm value. This stakeholder group is vital for firms' business growth and long-term survival. Therefore, the current research examines stock market responses to CTRPs announced by firms during the pandemic. In other words, and based on stakeholder theory, firms should tend to the interests of various stakeholders and legitimize their activities to sustain congruence between society's and firms' objectives in order to succeed and grow (Frynas and Yamahaki, 2016). Given the fact that CTRPs are congruent with the demands of stakeholders and the environment, they are expected to be value-enhancing programs for the firms offering them. We hypothesize:

H₁: The announcement of CTRPs during the pandemic has a positive effect on firm value.

While firms' resiliency programs are expected to have an overall positive main effect on firm value, in the following section, we explore how differences in the characteristics of the resiliency programs communicated through firms' announcements may moderate the firm value effect that firms witness. More specifically, we examine factors related to specific aspects of the programs from financial and temporal perspectives, as well as firm type.

CSR and resiliency programs

Deng *et al.* (2020) classified CSR into internal and external CSR initiatives. Internal CSR refers to CSR initiatives that employees can participate in and reap developmental benefits from.

These programs reflect employers' respect to their employees. External CSR refers to initiatives focused on stewardship toward the local community, the natural environment, and consumers (Deng *et al.*, 2020). Thus, CSR can take different shapes and be focused on different issues such as environment-, product-, diversity-, corporate governance-, employee-, consumer-, and community-based issues (Mishra and Modi, 2016). Researchers studying the effects of CSR on firms should distinguish between CSR types with different focus/targets (Jayachandran *et al.*, 2013). However, only a few studies have compared the impacts of different CSR programs on firm value. Mishra and Modi (2016) noted that community-based CSRs have lower diagnosticity, and Wang *et al.* (2008) found that the benefits from philanthropy- and charity-focused CSR programs are less verifiable. Tsai and Wu (2022), however, found that CSR initiatives focused on environment, human rights, and product characteristic improvements result in higher financial returns during a financial crisis period, whereas the value enhancement of improvement in employee relations is more pronounced during non-crisis periods.

CTRPs during times of crises could be classified as external CSR initiatives. These programs imply varying degrees of resource commitment for the firms offering them, and thus could result in different shareholder reactions. Additionally, these programs offer different degrees of benefits to consumers, and their supportive value could be perceived differently. Moreover, additional cues available within firms' announcements (e.g., form of support provided by the initiative and the beneficiaries from the initiative) may be assessed by investors (Blagoeva *et al.*, 2020). These cues allow investors to more precisely evaluate the potential benefits to firms, which is why some firms may realize more positive financial effects than others (Bhagwat *et al.*, 2020).

A review of CTRPs announced during the pandemic (refer to Table I) indicates that despite their seemingly similar goal of supporting consumers, these programs were different in terms of

their financial and temporal characteristics, implying different levels of resource commitment for the firms offering them. While some resiliency programs reduced prices or offered products/services for free or gave cash back to consumers, others simply deferred when consumers would pay back the firm. In other words, the former group of programs was designed to help consumers tangibly save money, while the latter was not. As such, this design difference could affect the relative pain of payment experienced by consumers. Pain of payment refers to the negative psychological affects evoked when consumers lose their financial resources and/or anticipate making payments (Prelec and Loewenstein, 1998; Reshadi and Fitzgerald, 2023). “Anticipated pain of payment can be evoked both when contemplating a particular future payment or when contemplating a potential future payment” (Reshadi and Fitzgerald, 2023, p. 4). Thus, CTRPs which lowered the anticipated pain of payment by reducing prices or offering products/services for free could have been perceived as more supportive of consumers and more in line with the goal of resiliency programs compared to those that allowed for delayed payments (and did not lower or eliminate the pain of payment). Further experiencing high levels of anticipated pain of payment results in lower purchase intentions (Aghakhani *et al.*, 2019; Chan, 2021), reduces the amount consumers are willing to spend (Thunström *et al.*, 2018), increases the salience of prices and the extent to which consumers are aware of their total spending (Sheehan and Van Ittersum, 2018; Park *et al.*, 2021), and thus, can affect a firm’s performance. Consequently, from the stakeholder theory perspective, delayed payment programs are not expected to be preferred by investors. We hypothesize:

H₂: The type of financial aid mentioned in CTRP announcements has a moderating effect on firm value, such that programs which offer products/services for a reduced price or for free, or which

give cash back to consumers, result in a more positive impact compared to delayed payment programs.

Moreover, the design of CTRPs varied in terms of temporal limitations. While some programs were announced to be limited-time offers, others were conveyed to be indefinite/for the foreseeable future or had no mention of time in the announcement. With limited-time offers, consumers are informed that they have a limited amount of time to act on an offering. According to commodity theory (Brock, 1968) and reactance theory (Brehm and Brehm, 1981), limited-time offers increase the perceived unavailability or scarcity of the offer (Inman *et al.*, 1997). Prior research has identified the positive relationship between limited-time offers and value (Lynn, 1991), higher perceived offer attractiveness (Lessne and Notarantonio, 1988), increased choice probability (Inman *et al.*, 1997), higher likelihood of taking advantage of the offer (Simonson, 1992), and enhanced purchase intentions (Howard and Kerin, 2006). Thus, CTRPs with temporal limitations are expected to be received more positively and encourage consumers to act on the offer to take advantage of its benefits. We hypothesize:

H₃: Temporal limitations mentioned in CTRP announcements have a moderating effect on firm value, such that limited-time offer programs result in a more positive impact than programs with no time limit.

Finally, while some CTRPs were offered by financial firms such as banks and credit card companies, others were offered by non-financial firms such as healthcare companies and consumer products and services companies. The former group of firms are generally more expected to show financial support for consumers facing financial vulnerabilities, given the nature of their relationship with customers. For example, even before the COVID-19 pandemic, credit card companies provided borrowers who experienced difficulty repaying their debts the opportunity to

enter a workout program, which often entailed deferred or rescheduled repayments of past due amounts. In some cases, the creditors provided concessions on interest and fees charged to the borrowers as well (Wilshusen, 2022). Thus, while CTRPs offered by financial firms during the pandemic were more encompassing and required less screening for qualification, consumers were generally aware of, and expecting, support programs by these firms in cases of consumer financial hardship. Non-financial firms, on the other hand, were less expected to offer such resiliency programs to consumers, and thus, CTRPs announced by these firms are more likely to be received more positively. In the case of low expectancy, a CTRP during a crisis can highlight a firm's values and its commitment to support consumers (Baskentli *et al.*, 2019). Indeed, expectancy of a CSR initiative (i.e., the extent to which a CSR activity deviates from consumers' mental schema regarding the firm's CSR initiatives; Heckler and Childers, 1992) affects how the CSR is received by stakeholders, and unexpected CSR initiatives have a more positive influence on brand evaluations when CSR fit is high (Tezer *et al.*, 2014), resulting in better firm performance. We hypothesize:

H4: Firm type moderates the impact of CTRP announcements on firm value, such that non-financial firms witness a more positive impact than financial firms.

Method and Analysis

Data collection

Following prior event studies, we used Lexis-Nexis, a comprehensive database of business news publications, in addition to Proquest's U.S. Newsstream and other newswire services to

search for and collect announcements of CTRPs made by publicly traded firms during the pandemic. In situations where firms made multiple announcements, we retained the first (i.e., earliest) announcement made by each firm, as it is expected to have the most significant signaling impact on investors (Sorescu *et al.*, 2017). In addition, as announcements regarding quarterly earnings, mergers and acquisitions, and other major firm events can lead to confounding financial effects, we followed prior literature and removed any CTRP announcements that were made in close time proximity to such events (Tipton *et al.*, 2009; Raassens *et al.*, 2012; Sorescu *et al.*, 2017). After doing so, we arrived at our final dataset of 145 CTRP announcements, made during the period of February through June of 2020.

Event study methodology

To test the hypothesized impact of CTRPs on firm value, we employ the event study methodology (Casado-Diaz *et al.*, 2009) to measure the precise effect of their announcement on a firm's stock price. This methodology has several advantages as compared to other methods that assess firm value. For example, event studies are able to isolate the unique impact of a corporate action (i.e., CTRP) using publicly available, high frequency performance data (i.e., stock prices), whereas other methods rely on metrics such as sales or profits which are available at much lower frequencies (e.g., quarterly) and make it difficult to distinguish the specific value-add of the corporate action in relation to the general performance of the firm (Sorescu *et al.*, 2017). In addition, causal inferences (under certain conditions) can be drawn from event studies since the corporate action being studied is attributable to a specific date. Such inferences are not possible with other methods (e.g., stock return response modeling) since they study relationships that manifest over time (e.g., customer equity and firm value).

As CTRP announcements are expected to signal new information to investors on the day in which they are made (the event day), this can lead to an unusual and novel impact on firms' stock prices, commonly termed as abnormal return and calculated as follows:

$$AR_{it} = R_{it} - E(R_{it})$$

where R_{it} is the realized rate of return of the stock of firm i on the event day and $E(R_{it})$ is the expected return of stock i that would have been realized had the event not occurred. In order to estimate $E(R_{it})$, we used the Fama-French three factor model (Fama and French, 1993) which takes into account important financial variables (e.g., risk-free rate of return, stock portfolio size and value) and a risk factor estimated from a regression of 250 days ending 120 days before the event day. This ensures that the calculation of expected returns, for all firms in our dataset, is not affected by the volatility induced by the onset of the pandemic itself.

Since the effect of an event on a firm's stock price may manifest itself several days before the event day due to early leakage of information (McWilliams and Siegel, 1997), or conversely may evolve several days after the event day due to news coverage delays or persistence effects (Wiles and Danielova, 2009), abnormal returns are typically estimated over a measurement window spanning a number of days by aggregating the abnormal returns that occur on each day within the window. The sum of the abnormal returns is called cumulative abnormal return (CAR). We estimated CAR across windows ranging from two days prior to two days after the event day. The window with the most significant t-statistic should be used for subsequent analyses (Sorescu *et al.*, 2017), and the CAR corresponding to this window serves as the dependent variable in our main model.

Independent variables

Following prior work (Boyd *et al.*, 2019; Bahmani *et al.*, 2022), a content analysis of each CTRP announcement was performed to categorize and assign values for two of the independent variables in our main model. Inter-rater reliability was excellent across several independent judges ($\alpha > 94\%$ for all variables) and any uncertainties were discussed with the research team. Dummy variables were developed to test the moderating relationships hypothesized in H₂ and H₃. *FinancialAid* takes a value of 1 if a firm's CTRP announcement mentioned that the firm was reducing the prices of its products/services, offering its products/services for free, or giving cash back to consumers. This variable takes a value of 0 otherwise, which denotes announcements that did not provide financial incentives to consumers, but allowed consumers to defer payments for products and services instead. *LimitedTime* takes a value of 1 if a firm's announcement mentioned that the firm's CTRP was to be offered for a limited time (i.e., until a specific date), and 0 otherwise (i.e., no end date mentioned).

A third dummy variable was developed to test the moderating relationship hypothesized in H₄. *FinancialFirm* takes a value of 1 if a firm belongs to the financial services industry (e.g., banks, credit card companies, investment management firms), and 0 otherwise. We used a firm's four digit SIC industry code to make this distinction.

Controls

Following prior work, we control for a number of variables that may confound the impact of firms' CTRP announcements on firm value. At the firm level, *FirmSize* is computed as the natural log of a firm's total assets (Boyd *et al.*, 2019), as larger firms may witness larger financial effects than smaller firms. Next, due to the fact that the pandemic resulted in a strongly negative impact on the stock market beginning in February 2020, we included a measure that controls for the extent to which a firm's stock price had been affected by the time of its CTRP announcement.

This variable, *EffectofPandemic*, is calculated as the difference (in percent) between a firm's stock price on the day prior to the event window, and its stock price on February 19, 2020 which was the day before the market crash began. At the industry level, *IndustryGrowth* is calculated as the average three-year sales growth percentage for the industry in which a firm belongs (Homburg *et al.*, 2014), since firms in growing markets may be more attractive to investors. *IndustryAdvertising* is measured as the average five-year advertising-to-sales ratio for a firm's industry (Boyd *et al.*, 2010), as firms belonging to industries with larger advertising levels may be under public scrutiny to a greater extent. Finally, *CompetitiveIntensity* applies the inverse Herfindahl-Hirschman index, which controls for the number of competitors a firm has within its industry and the market shares they command (Homburg *et al.*, 2014). Firms with less competitive intensity have fewer competitors each with large market shares, which may be easier for investors to monitor and assess (Xiong and Bharadwaj, 2013). All financial data was collected from the Center for Research in Security Prices (CRSP) and Compustat databases. Correlations and descriptive statistics are available in Table II.

[Insert Table II here]

Correction for Selection Bias

As our sample of firms presents a concern of potential selection bias, we adopt the classic two-stage Heckman procedure (Heckman 1979) to control for this confounding effect. Due to the fact that a firm's decision to announce a CTRP may be the result of unobserved factors which may represent systematic differences between announcing and non-announcing firms, the analysis of abnormal returns may be confounded (Sorescu *et al.*, 2017).

We first collected a matched sample of U.S. firms which did not announce a CTRP during the pandemic but are within the same respective industries as the firms in our sample and are similar ($\pm 25\%$) in size (Fang *et al.*, 2015). In the first stage of the Heckman procedure, a probit model is estimated which models a firm's probability of announcing a CTRP, based upon variables which may implicitly explain a firm's decision to make such an announcement. First, we included *Volatility* which tracks the level of stock market volatility at the time of a firm's announcement, since investor fear and uncertainty may lead firms to avoid potentially risky strategies. This variable is represented by the closing value of the CBOE VIX volatility index at the end of the day prior to the beginning of the event window. Second, we included *EffectofPandemic* since firms that witnessed larger financial losses as a result of the pandemic may be more inclined to physically do something about it. Third, we included *Cash* which denotes the natural log of the total amount of cash reserves a firm had on hand prior to the pandemic-induced market crash. Firms with more cash on hand may have been able to protect themselves more strongly against the negative effects of the pandemic, and may have had a higher likelihood of giving back to consumers. In addition to these three variables, we included all other observable firm financial characteristics in the model (Bhagwat *et al.*, 2020), such as a firm's *SalesGrowth* over the past year, *FirmSize*, *ReturnOnAssets* (ratio of earnings before interest and taxes to total assets), *Leverage* (ratio of long-term debt to total assets), and *BookToMarket* (ratio of book value to market value).

Based upon the estimated coefficients and probabilities obtained from the first-stage probit model, we subsequently calculated the *InverseMills* ratio which is included as a regressor in the second-stage model (our main model) to account for selection bias. In unison with the previously mentioned control variables, we assess the hypothesized moderators of CTRP announcement j 's impact on firm i 's cumulative abnormal return in our main (regression) model as follows:

$$\begin{aligned}
CAR_{j,i} = & \beta_0 + \beta_1 FinancialAid_{j,i} + \beta_2 LimitedTime_{j,i} + \beta_3 FinancialFirm_i + \beta_4 FirmSize_i \\
& + \beta_5 EffectofPandemic_i + \beta_6 IndustryGrowth_i + \beta_7 IndustryAdvertising_i \\
& + \beta_8 CompetitiveIntensity_i + \beta_9 InverseMills_i + \varepsilon_1
\end{aligned} \tag{1}$$

Results and Discussion

Event study and moderation analysis results

In evaluation of H₁, we conducted the event study and estimated CAR_i across a variety of event windows, the results of which are summarized in Table III. Following prior literature (Sorescu *et al.*, 2017; Bahmani *et al.*, 2022), we proceeded with the most statistically significant event window, which reveals that on average, firms witnessed a 1.9% increase in firm value as a result of announcing a CTRP during the pandemic (t = 3.02, p < .003).

[Insert Table III here]

The results of the first-stage probit model ($\chi^2 = 87.34$, p < .0001) are available in Table IV. To accurately estimate the inverse Mills ratio and include it as a regressor in our main model (the second-stage model), model identification must be achieved in the first-stage model - a minimum of one independent variable (i.e., instrumental variable) must be statistically significant (Cook *et al.*, 2021). This condition is satisfied, as *Volatility*, *Cash*, *FirmSize*, and *BookToMarket* are found to be significant predictors of a firm's likelihood of announcing a CTRP. We also ensured that the exclusion restriction of the Heckman procedure is met by verifying that (1) the instrumental variables omitted from our main model are not significantly related to CAR, and (2) the inverse

Mills ratio is not significantly correlated with any of the variables in our main model (Certo *et al.*, 2016).

[Insert Table IV here]

To estimate the hypothesized moderating effects in H₂ – H₄, Equation 1 was estimated using standard OLS regression. The results are illustrated in the second column of Table V. The overall model is significant (F = 3.97, p < 0.0003), with no multicollinearity concerns present as all variance inflation factors are below 2.

In evaluation of H₂, we find that *FinancialAid* does not have a significant moderating effect on firm value (t = .93, p > .35). Investors therefore are not concerned with whether consumers are provided with tangible financial benefits through firms' CTRPs. Firms are rewarded to the same positive extent as they are for CTRPs that simply defer consumers' payments. With regards to H₃, *LimitedTime* is not found to have a significant moderating effect on firm value (t = -.74, p > .46). This provides evidence that firms that specifically mention their CTRP ends at a certain point in time do not witness different financial effects than firms that make no mention of an end date. Finally, in support of H₄, *FinancialFirm* has a significant negative moderating effect on firm value (t = -.04, p < .02). Thus, although the event study revealed an overall positive main effect of CTRPs on firm value, it is found that the increase in firm value witnessed by financial firms ($\mu = 1.25\%$) is statistically lower than that of non-financial firms ($\mu = 2.09\%$). This reveals that investors were especially receptive to CTRPs announced by non-financial firms.

[Insert Table V here]

Robustness checks

We performed several robustness checks to further validate our results, following procedures used in prior event studies (Cao *et al.*, 2018; Bhagwat *et al.*, 2020; Bahmani *et al.*, 2022). First, although the Fama-French three factor model is well-regarded and prevalently used in the event study literature to calculate expected returns (and subsequently abnormal returns), prior work has suggested that simpler models may suffice for short-term event windows (Sorescu *et al.*, 2017). For example, the market model calculates expected returns using the risk-free rate of return and a risk factor (thereby forgoing the inclusion of stock portfolio size and value factors), whereas the market-adjusted model estimates expected returns simply as the average current rate of return of all publicly traded stocks (Brown and Warner, 1985). Other work, however, argues that more expansive models may be more accurate, such as Carhart's four factor model (Carhart 1997) which extends the Fama-French three factor model by adding an additional risk factor (portfolio momentum). We therefore repeated our event study using each of these three alternative asset pricing models and re-estimated Equation 1 using the CAR values calculated by each model. In all three models, the event study re-confirmed the positive impact of CTRP announcements on firm value, and the evaluation of our hypotheses remained consistent with no notable differences across the models. We provide the results of the market-adjusted model, as an example, in the third column of Table V.

To assess the potential impact of outliers, we performed a 90% winsorization of our data, which sets observations below the 5th percentile and above the 95th percentile at those respective fixed levels (Boyd *et al.*, 2019; Wies *et al.*, 2019; Bhagwat *et al.*, 2020). After doing so, we re-estimated Equation 1 and found that our results were unchanged, which demonstrates that outliers do not drive any of our findings. The results of the winsorized model are provided in the fourth column of Table V.

Finally, since two alternative event windows were statistically significant (see Table III), we re-estimated our moderating model using their calculated CAR values to check whether our results change (Bhagwat *et al.*, 2020). The results of the model conducted on the (0,2) event window are available in the final column of Table V, which did not differ from that of the (0,0) or (0,1) window.

Follow-up tests

We conducted two follow-up tests to assess whether the impact of CTRP announcements on firm value is moderated by additional factors. First, prior work has documented the potential for time-varying effects. Firms that are faster to make an announcement to the public may witness stronger financial effects, since the information they reveal may be perceived as more novel by investors (Boyd *et al.*, 2019). At the same time, it could be argued that firms that wait longer to make an announcement may witness a more positive effect, since they could use other firms' actions as a learning opportunity to optimize their own (Geyskens *et al.*, 2002). We followed Boyd *et al.* (2019) and Bahmani *et al.* (2022) and arranged our dataset of announcements chronologically and then split the observations into two equal groups. This led to the creation of a dummy variable which we then entered into Equation 1. The regression model was re-estimated, and no significant time effects were found ($p > .90$). Furthermore, no notable changes were found when splitting the observations into three groups ($p > .61$), or when using an index variable based on the number of days a firm waited after the onset of the pandemic to make its CTRP announcement ($p > .95$). In summary, this reveals that investors did not reward or penalize firms based on when they chose to make their announcement.

Next, although a value of 0 for the *FinancialAid* dummy variable indicates that a firm's CTRP did not provide consumers with direct financial benefits and instead allowed them to defer

their payments to the firm, a value of 1 does not imply the absence of deferrable payments. In other words, some firms (nearly 26% in our dataset) announced CTRPs that included *both* types of benefits to consumers. It is possible that investors may have been more receptive to these firms' CTRP announcements, since they tried to offer as much aid to consumers as possible. To this end, we created a second dummy variable which allows us to measure the unique effect of deferrable payments. We then entered this variable into Equation 1 in unison with *FinancialAid*, and re-estimated our moderating regression model. The overall model was significant ($F = 3.57, p < .0004$). *FinancialAid* remained insignificant ($p > .63$), and the dummy variable for deferrable payments was insignificant as well ($p > .61$). Follow-up contrasts across groups of firms revealed no significant differences. This provides further evidence that investors were not concerned with the specific type of aid being offered to consumers – firms' CTRP announcements were uniformly received in a positive way.

Discussion

The present research follows an event study approach to examine the effect of consumer-targeted resiliency programs (CTRPs) announced during the COVID-19 pandemic on firm value. While prior research has examined the financial and psychological consequences of the pandemic from a micro and macro perspective, the effect of CSR initiatives aimed at supporting consumer resilience has not been studied. Further, the few studies that focused on the outcomes of firm policies, initiatives, and characteristics during the pandemic, have produced contradicting results reporting favorable (Tosun and Köylüoğlu, 2023), less favorable (Bahmani *et al.*, 2023), or insignificant (Bae *et al.*, 2021) outcomes for firms. We argue that the contradictory findings in extant research could be due to the lack of specificity in examining the type of CSR program, the limited number of industries involved, or sampling and generalizability issues. As such, by

acknowledging the significance of differentiating the types of CSR programs, the present research examines CSR programs, offered by U.S. based firms, that targeted consumers with the purpose of presenting them resiliency support. Our research examines these CTRPs in terms of their financial and temporal characteristics while also taking the type of firms offering them into consideration.

Our results indicate that there is an overall positive effect of CTRP announcements on firm value. The results support notions stemming from stakeholder theory and indicate that CTRPs could highlight firms' commitment to act based on the interests of various stakeholders and help position themselves as entities whose objectives are in line with society's interests (Frynas and Yamahaki, 2016). Such an approach, in turn, is rewarded by increasing firm value. Thus, our results indicate that *doing the right thing* can indeed lead to favorable firm outcomes. This is in line with Lins *et al.* (2017) who found that CSR actions increase firms' social capital and result in higher stock returns during crises.

The results indicate that the financial and temporal differences in CTRP design, however, do not significantly affect investor responses. In other words, investors did not treat financial and temporal differences of the resiliency programs differently. While some CTRPs focused on reducing payments or relieving consumers of payment obligations, others provided delayed payment opportunities. Regardless of the design differences, both types of financial aid may have decreased the pain of payment (Reshadi and Fitzgerald, 2023) by lowering negative psychological effects of financial vulnerabilities experienced by consumers. "Financial vulnerability is an intense psychological experience that results from feeling powerless and helpless while confronting an imminent, severe threat to one's financial well-being" (Alhenawi and Yazdanparast, 2022 p. 428). Thus, while the form of financial aid was designed differently, ultimately, CTRPs supported

consumer resiliency by easing consumers' financial vulnerabilities. Such supportive programs are, indeed, in line with stakeholders' interests and are rewarded by investors as well. Furthermore, some CTRPs incorporated limited-time offers while others were announced with no mention of such limitations. Again, regardless of the temporal differences, CTRPs provided consumers with resources that supported their resilience and lessened their perceived vulnerabilities during the pandemic. As such, despite differences in the duration of commitment by firms, the announcement of CTRPs was received positively by stakeholders and rewarded by investors.

The results provide insights into the positive effects of consumer-focused CSR during times of crises and highlight the importance of timeliness of such initiatives regardless of their temporal and financial design characteristics, as CSR activities of firms focused on community and environmental support have been found to result in lower firm performance when consumers are not faced with crises (Bird *et al.*, 2007). In other words, and in line with resilience theory and stakeholder theory arguments, any effort to help consumers in their time of need was rewarded, regardless of the design of the financial aid and whether it was short-term or long-term in nature.

However, the results reveal that non-financial firms were rewarded more positively than financial firms for their CTRPs. This could be due to lower expectancy of CTRPs offering financial aid from non-financial firms. Expectancy is an antecedent to motivation to process information (Meyers-Levy and Tybout, 1989), which is a function of firm and industry characteristics (Cahan *et al.*, 2016). Thus, an unexpected CSR activity (such as offering financial support in the form of a CTRP by a non-financial firm) initiates elaboration among stakeholders. As elaboration increases, sincere CSR motivations of the firm become more salient (Ellen *et al.*, 2006), which, according to stakeholder theory, will result in firm value benefits. The results are in line with Cahan *et al.* (2016), reporting a positive relationship between unexpected CSR disclosures and

firm value measured by Tobin's Q. However, when the CSR activity is expected (i.e., a financial firm offering financial aid through a CTRP), its announcement does not result in significant elaboration to evaluate the firm and is simply regarded as an expected good deed (Simmons and Becker-Olsen, 2006).

Conclusion and Implications

Contributions

Our work offers important contributions to extant research and has practical implications for firms. First, the present research extends work focusing on CSR by examining specific CSR initiatives, namely pandemic-induced consumer-targeted resiliency programs (CTRPs), and evaluating their value to firms as indicated through abnormal stock returns. This approach addresses an important gap in the literature by providing specificity (focusing on specific CSR initiatives during a specific crisis) and enhanced generalizability (addressing sample size, context, and methodological concerns of prior studies).

Second, by linking resilience theory and stakeholder theory, the present research expands resilience research and highlights the performance-based values of resiliency programs for firms supporting consumers and being rewarded by investors. Despite growing attention to resiliency research in other fields, the marketing research has not explored this important topic sufficiently (Rew and Minor, 2018). The present research addresses this gap and focuses on CTRPs offered during the COVID-19 pandemic and defines them as a specific type of CSR aimed at providing consumers with capabilities and resources to lessen their vulnerabilities in times of crisis. Such an

approach is unique, as prior resiliency research has mainly focused on consumer coping mechanisms and attitudes towards such traumatic events (Rew and Minor, 2018; Liu *et al.*, 2023).

Moreover, the present research differentiates various types of firms offering CTRPs, categorizes CTRPs in terms of their financial and temporal design characteristics through moderation (regression) analyses, and examines how they are received by stakeholders as revealed through firm value. By so doing, our work makes unique contributions to resiliency research and extends its scope to CSR offerings during crisis while examining the dynamics of their effects on firms across industries and program design characteristics. Following the event study methodology and relying on data from 145 U.S. firms, it is possible for our examination to account for theory-driven control factors and selection bias and produce robust results that are generalizable to U.S. firms beyond a specific industry sector.

The findings also have significant implications for firms, suggesting that they should not hesitate to address the needs of vulnerable consumers in times when firms are suffering themselves. Indeed, the results of our event study suggest that investors reward firms for devising CSR initiatives aimed at supporting and enhancing consumer resilience during the pandemic. Therefore, firms and their managers should not hesitate to take action in such hard times, as CTRPs can enhance firm value. Based on our results, firms and their managers should be aware of several important facts. First, regardless of the financial or temporal characteristics of CTRPs, these initiatives are positively received by stakeholders and are rewarded by investors. Since neither the type of financial aid nor the time limitation of these programs results in significantly different effects on firm value, firms are encouraged to design programs that result in lower resource commitments. As such, limited-term commitments may be given preference over CTRPs with no end date, and deferred payment offers could pose lower resource commitments than reduced price

or free product/service offerings for firms. Second, it is noteworthy that CTRPs are not awarded equally for all firms. Thus, firms should be cognizant of the fact that investors respond more positively to CTRPs announced by non-financial firms. This creates an especially strong opportunity for such firms to stand out and be rewarded given lower program expectancy (and consequently, higher visibility of the programs).

Limitations and directions for future research

Despite the important contributions and implications, the present research has certain limitations. First, our conclusions are relative to the specific sample of firms that we studied. Although our search was extensive and inclusive, our event study sample consisted of 145 CTRPs and was limited to U.S. firms due to financial data availability. It cannot necessarily be assumed that non-U.S. firms witness similar firm value effects as a result of CTRPs. Prior work has found that the effect of CSR activities can vary across cultures (Hill *et al.*, 2007), since the role and expectancy of the corporation (versus government) in addressing societal concerns may be larger (Danko *et al.*, 2008). Also, consumers' attitudes and communications surrounding CSR activities can differ across cultures, ultimately affecting word of mouth intentions and engagement levels (Chu *et al.*, 2020). Therefore, future research could analyze whether the impact of CTRPs (and their features) differs across samples of non-U.S. firms.

Second, similar to other existing event study research, the results of the event study can be complemented by other methods. For example, given the fact that the event study examined firm value, it would be interesting to examine responses to CTRPs from other perspectives such as consumer attitudes, branding outcomes, and reputation status. These perspectives could differ across heterogeneous groups that have experienced vulnerabilities to varying extents during the pandemic, such as millennials (She *et al.*, 2023), immigrants (Lee and Kim, 2023), single parents

(Mundi and Vashisht, 2023), individuals with disabilities (Wann and Burke-Smalley, 2023), and women (Dutra *et al.*, 2023).

Given the nature of our approach, we focused on short-term market reactions. We encourage future research that examines the long-term effects of CTRPs as well. Moreover, the present research examined the moderating roles of firm type as well as the design characteristics of CTRPs in terms of financial aid type and temporal limitations. Other characteristics of the programs such as the magnitude of the financial aid, the reach of the CTRPs, and the size of the consumer groups that could potentially benefit from them could be examined as well. Finally, factors related to marketing efforts for communicating CTRPs and the level of community awareness of the programs could be taken into account as well.

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Table I: Examples of consumer-targeted resiliency program announcements

Type	Operationalization	Announcement Examples
<i>Financial Aid</i>	Announcement mentions that the firm is decreasing the prices of its products/services, the firm is offering products/services for free, or the firm is giving cash back to consumers	<p>“Walgreens is waiving delivery fees for all eligible prescriptions during this evolving situation; to make online shopping even easier, there will be free delivery on any purchase on Walgreens.com beginning tomorrow and until further notice, with no minimum purchase required”</p> <p>“Charter will offer free Spectrum broadband and Wi-Fi access for 60 days to households with K-12 and/or college students”</p> <p>“Through Health Cloud, Salesforce will provide free access to technology for emergency response teams, call centers, and care management teams for health systems affected by coronavirus; to help teams collaborate while employees are away from the office, Quip Starter will be available for free to any Salesforce customer or non-profit organization”</p> <p>The company will credit personal auto customers 20% of their monthly insurance premiums for April and May (Progressive)</p> <p>The company is waiving chargeback fees for merchants, waiving fees for instant withdrawals, and is doubling the instant cash back reward on all purchases (PayPal)</p>
<i>Limited Time</i>	Announcement mentions that the firm’s offer is to be offered for a limited time (with a specified date)	<p>The company is “waiving member cost-sharing for the treatment of COVID-19” through May 31 for its fully-insured commercial, Medicare Advantage and Medicaid plans; it will also “waive cost-sharing for in-network, non-COVID-19 telehealth visits” until June 18 (UnitedHealth Group)</p> <p>The company is suspending fees on a range of loan and deposit products up to 90 days, offering payment deferrals for up to 90 days on consumer, mortgage and small business loans, and suspending foreclosure activity on homes and new repossession activities for 60 days (Associated Bank)</p> <p>“Any ticket purchased prior to March 1 will not incur change fees prior to travel; this is available for any of American’s fares for travel through May 31; customers are allowed to change their origin and destination cities as part of this offer” (American Airlines)</p> <p>“GM, through its GM Financial arm, is offering 0% financing for seven years – two years more than recent programs – and four months deferred payments for those with A+ credit. People with a lower rating of A1 can qualify for the deferment, however not the 0% financing; the offers are valid through March 31” (General Motors)</p> <p>The company will offer free delivery until March 31 to make life easier for customers (Chipotle Mexican Grill)</p>

Table II: Descriptive statistics and correlations

	Mean	SD	1	2	3	4	5	6	7	8
1. <i>FinancialAid</i>	.65	.47	1							
2. <i>LimitedTime</i>	.59	.49	-.06	1						
3. <i>FinancialFirm</i>	.23	.42	.10	.08	1					
4. <i>FirmSize</i>	9.86	1.65	-.11	.09	.39*	1				
5. <i>EffectofPandemic</i>	-.31	.15	.02	-.08	-.35*	.04	1			
6. <i>IndustryGrowth</i>	.05	.05	.12	.04	.06	-.07	-.01	1		
7. <i>IndustryAdvertising</i>	.00	.00	.25*	.07	.03	-.24*	-.02	.55*	1	
8. <i>CompetitiveIntensity</i>	18.73	21.03	-.22*	-.06	.22*	.02	-.28*	-.15	-.22*	1

Note: *p-value < .05

Table III: Event study results

Event window	CAR (%)	t-Statistic
(-2, 0)	-1.10%	-1.61
(-1, 0)	.05%	.10
0	.96%	2.14*
(0, 1)	1.90%	3.02**
(0, 2)	2.33%	2.75**
(-1, 1)	1.00%	1.32
(-2, 2)	.26%	.30

Note: *p-value < .05, **p-value < .01

Table IV: Heckman selection model results

Variable	Estimate	Chi-Square
Intercept	-2.435	14.491**
Volatility	-.011	3.912*
EffectofPandemic	.154	.079
Cash	.202	4.767*
SalesGrowth	-.204	.399
FirmSize	.253	9.676**
ReturnOnAssets	1.214	.474
Leverage	-.531	1.909
BookToMarket	-.937	11.951**
Model Chi-Square: 87.34**		

Note: *p-value < .05, **p-value < .01

Table V: Moderating Model Results

	Fama-French 3 Factor Model	Market-adjusted Model (robustness)	Winsorized Model (robustness)	Alternative Event Window (robustness)
Variable	Estimate (SE)	Estimate (SE)	Estimate (SE)	Estimate (SE)
Intercept	-.018 (.048)	.017 (.049)	-.014 (.044)	-.069 (.059)
FinancialAid	.012 (.013)	.002 (.013)	.009 (.012)	-.002 (.016)
LimitedTime	-.008 (.012)	-.009 (.012)	-.011 (.011)	-.028 (.014)
FinancialFirm	-.041 (.017)*	-.041 (.017)*	-.037 (.016)*	-.084 (.021)**
FirmSize	-.001 (.003)	-.003 (.004)	-.001 (.003)	.003 (.004)
EffectofPandemic	-.219 (.041)**	-.212 (.041)**	-.188 (.037)**	-.375 (.050)**
IndustryGrowth	.070 (.133)	.009 (.136)	.034 (.122)	-.084 (.164)
IndustryAdvertising	-1.211 (1.062)	-1.199 (1.084)	-.583 (.980)	-1.424 (1.308)
CompetitiveIntensity	.000 (.000)	-.000 (.000)	.000 (.000)	.000 (.000)
InverseMills	-.000 (.000)	-.000 (.000)	-.000 (.000)	-.001 (.000)*
F-statistic	3.97**	3.63**	3.60**	7.85**
R-squared (adj. R-squared)	.209 (.156)	.194 (.141)	.193 (.140)	.343 (.299)

Note: *p-value < .05, **p-value < .01.