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TITLE

Rounding up for a cause: The joint effect of donation type and crowding on donation likelihood

ABSTRACT

Prior research demonstrates that consumers are more likely to donate when asked to round up their total bill to the next whole dollar (vs. donate a flat-dollar amount). However, there is scant research demonstrating boundary conditions for the effectiveness of round-up donations. The purpose of this study is to fill this knowledge gap by suggesting crowding level of a service establishment as a boundary condition. Study 1 demonstrates that round-up (vs. flat-dollar) donations decrease perceived pain of donation, thereby increasing donation likelihood. Study 2 shows that round-up (vs. flat-dollar) donations decrease pain of donation in a crowded environment. Conversely, such differences in pain of donation are not observed in a non-crowded environment. The present study contributes to the nascent literature on round-up donations and provides insight to cause-related marketing managers concerning how to design donation messages.

KEYWORDS

Donation; crowding; prosocial behavior; rounding up; cause-related marketing

INTRODUCTION

Despite the generosity of the American people, the U.S. has been on a downward trend in charitable giving since 2014 (Charities Aid Foundation [CAF], 2019). Specifically, the percentage of the U.S. residents making donations to charitable organizations has decreased from 63 to 61 percent. The U.S. is now ranked on the 11th place in terms of monetary donations among 126 countries (CAF, 2019). Such numbers call for effective ways of designing donation campaigns to continuously induce consumer engagement. Converging evidence suggests that consumers' prosocial behaviors, including donation behaviors, have a positive impact on satisfaction (Giebelhausen et al., 2016), loyalty (Giebelhausen et al., 2017; O'Brien et al., 2015), and net sales and share price (Casado-Díaz et al., 2014; Giebelhausen et al., 2017). Thus, it is imperative to maintain consumer engagement in donation campaigns and to examine what types of donation messages induce such engagement.

Previous research has demonstrated the effectiveness of several types of donation appeals, such as matching donations (Choi et al., 2019; Hanks et al., 2017), fitness donation appeals (Choi et al., 2019), and self- vs. society-serving appeals (White & Peloza, 2009; Wu et al., 2017). However, there is scant research examining consumer responses to *round-up* vs. *flat-dollar* donation appeals (for a notable exception, see Kelting et al., 2019). Nowadays, grocery stores, restaurants and food delivery companies implement round-up donation requests (e.g., "Donate the Change" by Grubhub.com) to increase consumer participation (Giebelhausen et al., 2017; Kelting et al., 2019). Unlike donating a specific amount of money (i.e., a flat-dollar donation), companies can ask consumers to round up their total bill to the next whole dollar and donate the difference to a charity (e.g., \$10.01 → \$11.00 and donate \$0.99). Our main research

question is when and why a round-up (vs. a flat-dollar) donation would be more effective in increasing consumers' donation likelihood.

Furthermore, previous research has not scrutinized boundary factors in consumer responses to round-up vs. flat-dollar donation appeals. To fill this void, the present study demonstrates crowdedness of a service establishment as an important, yet unexplored boundary condition. Unlike socio-demographic variables, such as sense of power (e.g., Zhang, Hanks, & Line, 2019), crowdedness is readily observable. Hence, understanding boundary effects of an environmental factor (i.e., social crowdedness) on consumers' donation behaviors can provide managers with useful insight into the effective use of donation messages. This paper showcases two studies to answer our research question. In Study 1, we propose that a round-up (vs. flat-dollar) donation request reduces psychological pain of donating, thereby increasing donation likelihood (e.g., Kelting et al., 2019). In Study 2, we suggest that social crowdedness is a boundary factor for the mediating effect of perceived pain of donation. We argue that prevention focus is heightened in a crowded (vs. non-crowded) environment (Maeng, Tanner, & Soman, 2013), and therefore, consumers are sensitive to cues that reduce psychological pain of donation. Consequently, perceived pain of donation mediates the impact of round-up (vs. flat-dollar) donations on donation likelihood in a crowded environment, while such a mediation is attenuated in a non-crowded environment.

The findings from this paper may help cause-related marketing managers in the hospitality industry design donation messages according to social crowding levels. The present study contributes to the literature illustrating the importance of social influence on consumers' prosocial behaviors (Gao & Mattila, 2019; Hanks et al., 2017; Line et al., 2018; Wu et al., 2017; Zhang et al., 2019). While this stream of literature has dominantly compared the absence and

presence of other consumers, it has overlooked how the volume of others influences consumer responses to different types of donation appeals. The present study sheds light on this knowledge gap by investigating the joint effect of crowding level and round-up (vs. flat-dollar) donation appeals on diners' donation behaviors.

THEORETICAL BACKGROUND

Types of donation messages

Previous research has examined various types of donation messages, such as matching donations (Choi et al., 2019; Hanks et al., 2017), fitness donation appeals (Choi et al., 2019), and self- vs. society-serving appeals (White & Peloza, 2009; Wu et al., 2017). In terms of matching donations, companies may match consumers' donation amount with a certain ratio (e.g., 1:1) and, accordingly, consumers perceive that the impact of their donation on the charitable organization is magnified (Charness & Holder, 2018). Hanks et al. (2017) reveal that matching donations are particularly effective in driving donation behaviors in the presence (vs. absence) of others (e.g., frontline employees or other fellow consumers). Meanwhile, Choi et al. (2019) compare fitness vs. general donation appeals. Choi et al. (2019) show that fitness-based (vs. general) matching donation appeals increase consumer perceptions about the company's engagement in cause-related marketing initiatives, particularly when the beneficiary is geographically proximate to the benefactor.

There is another stream of literature comparing self- vs. society-serving donation appeals (White & Peloza, 2009; Wu et al., 2017). Wu et al. (2017) examine self- vs. society-serving donation messages where the former emphasizes benefits to the benefactor (e.g., "earn a dining coupon for the next visit") and the latter highlights benefits to the society (e.g., "help the homeless find housing"). Wu et al. (2017) reveal that society-serving (vs. self-serving) donation messages increase donation intention in the presence of fellow consumers and that self-presentation concerns underlie such findings. In a similar vein, White and Peloza (2009) show that individuals high (vs. low) in public self-awareness exhibit a lower intention to volunteer time for a charity in the presence of a self-serving donation appeal.

The present study examines a relatively new type of donation message: round-up donation. Instead of asking consumers to donate a flat dollar amount (e.g., $1) at check-out, companies can ask consumers to round up their bill to the next whole dollar and donate the difference to a charity ($9.01 → $10.00). Donating money to a charity is different from making a purchase for oneself, as the act of donating is prosocial in nature. Nonetheless, consumers may construe donating money as an economic loss since it leads them to part with money (Kelting et al., 2019). The pain of payment literature posits that any costs incurred in a transaction involve consumers' perceptions of pain (Soster, Gershoff, & Bearden, 2014). Donating money is considered an expenditure (vs. income) and thus it involves perceived pain. According to the principle of loss aversion (Tversky & Kahneman, 1979), individuals are more sensitive to losses (vs. gains) and thus the value function of losses (vs. gains) is steeper. As donation is construed as an economic loss and losses are painful (Thaler, 1985), consumers might be sensitive to cues that reduce such perceptions of loss.

According to the mental accounting theory (Thaler, 1985), in the round-up (vs. flat-dollar) donation request, the purchase and the donation are lumped together and thus the donation amount is less obvious. Consumers may not mentally calculate the donation amount if they find such calculations taxing. As such, consumers are not likely to construe the donation amount as a separate loss. Supporting such a notion, Kelting et al. (2019) show that a round-up (vs. flat-dollar) donation increases donation likelihood, even after controlling for the donation amount. Kelting et al. (2019) further show that the underlying mechanism driving the effectiveness of round-up donations is reduced level of perceived pain of donation. Based on the aforementioned discussion, the present study posits that perceptions of loss are positively related

to perceived pain of donation and that round-up (vs. flat-dollar) donation appeals can reduce such perceptions.

Furthermore, converging evidence suggests that consumers tend to be more favorable toward round (vs. non-round) numbers ($10.00 vs. $10.01) (Pena-Marin & Bhargave, 2016; Wadhwa & Zhang, 2015). For instance, Wadhwa and Zhang (2015) demonstrate that individuals tend to process round (vs. non-round) numbers more fluently, thus feeling 'right' about round figures. Pena-Marin and Bhargave (2016) demonstrate that consumers tend to perceive a longer lasting product performance when round (vs. non-round) numbers are used to indicate product performance (e.g., 100 vs. 102 mg of caffeine in an energy drink). Consumers' generic tendency to prefer round (vs. non-round) numbers is likely to offset perceived pain of donation and concomitant negative emotions from parting with money. Extending this stream of literature to a restaurant context, this study predicts that diners' likelihood of donation at checkout is greater with a round-up (vs. flat-dollar) donation request and that perceived pain of donation mediates the impact of donation request type on donation likelihood.

The moderating effect of crowding level

Furthermore, this paper proposes that perceived crowding moderates the mediating effect of perceived pain of donation. Crowding is defined as population density per unit area (Stokols, 1972). Consumer perceptions of crowding are determined based on the number of people and the size of the locale. Previous research has documented that crowding leads to violations of personal space, thereby resulting in defensive responses and avoidance/withdrawal behaviors (Hui & Bateson, 1991; Hwang, Yoon, & Bendle, 2012; Maeng et al., 2013; Noone & Mattila, 2009a; Stokols, 1972). Such defensive responses involve stress and negative emotions, including fear, anxiety, and annoyance (Evans & Wener, 2007; McNaughton & Corr, 2004). In a similar

vein, Noone and Mattila (2009a) show that withdrawal behaviors, such as willingness to spend less money, are observed in the crowded environment regardless of consumers' consumption goals (utilitarian vs. hedonic). Hwang et al. (2012) find that consumers in the crowded environment tend to avoid chatting with other consumers.

Moreover, previous research posits that prevention focus underlies the impact of crowding on negative emotions and avoidance behaviors whereas promotion focus is associated with positive emotions, such as happiness, and approach behaviors (Forster, Liberman, & Higgins, 2005; Maeng et al., 2013). Prevention focus motivates individuals to reduce losses and to avoid negative emotions whereas promotion focus causes individuals to increase their attention to potential gains and to maximize positive emotions (Maeng et al. 2013). In other words, individuals with prevention (vs. promotion) focus are more sensitive to cues that reduce potential losses (vs. cues that increase gains). Drawing upon the regulatory fit account (Higgins, 2000), previous research indicates that purchase decisions are driven by a match between prevention (vs. promotion) focus and loss-framed (vs. gain-framed) messages (Liu, Mattila, & Bolton, 2018; Zhang et al., 2018). Specifically, Zhang et al. (2018) show that travelers with promotion focus perceive a destination image in a more favorable light when the destination portrays emotional benefits. Conversely, Zhang et al. (2018) show that travelers with prevention focus favor destinations that enable them to reduce negative emotions and stress.

Maeng et al. (2013) show that social crowding activates prevention focus, thereby prompting individuals to be more receptive to messages that reduce loss perceptions. Across six experiments, Maeng et al. (2013) reveal that individuals in a crowded environment are more risk aversive while gambling and prefer safety-related products (first-aid kit vs. cookies). Lee and Aaker (2004) show that loss-framed messages are more persuasive than gain-framed messages

when consumers' prevention goals are activated. Translating these findings into the donation context, the present study posits that crowding is likely to lead individuals to be more attentive to donation messages that reduce perceived pain and loss. As round-up (vs. flat-dollar) donation appeals reduce perceived pain of donation (Kelting et al., 2019), individuals in a crowded environment should exhibit lower levels of pain in the presence of round-up (vs. flat-dollar) donation appeals. Consequently, we predict that, in a crowded environment, perceived pain of donation will mediate the impact of round-up (vs. flat-dollar) donations and donation likelihood.

Conversely, the current study proposes that perceived pain of donation is unlikely to mediate the impact of donation type on donation likelihood in a non-crowded environment. There is evidence to suggest that prevention focus is not as activated in a non-crowded environment (Maeng et al., 2013). As a result, individuals in the non-crowded environment are not as likely to exhibit avoidance and withdrawal behaviors (Hwang et al., 2012; Maeng et al., 2013; Noone & Mattila, 2009a). As prevention focus is not triggered in the non-crowded environment, individuals are not as sensitive to cues that reduce perceived pain or losses. Individuals in the non-crowded environment may not find round-up (vs. flat-dollar) donations relevant, and consequently, donation likelihood is not likely to differ across round-up (vs. flat-dollar) donations. The conceptual model is depicted in Figure 1. Taken together, the following hypotheses are suggested:

Hypothesis 1. Donation likelihood will be higher in the presence of round-up (vs. flat-dollar) donations.

Hypothesis 2. Perceived pain of donation will mediate the impact of round-up (vs. flat-dollar) donations on donation likelihood.

Hypothesis 3. Crowding level will moderate the impact of donation type on perceived pain of donation. Specifically,

Hypothesis 3a. In the crowded environment, round-up (vs. flat-dollar) donations will reduce perceived pain of donation.

Hypothesis 3b. In the non-crowded environment, such an attenuating effect will not be observed.

Hypothesis 4. Crowding level will moderate the mediating effect of perceived pain of donation in the relationship between donation type and donation likelihood. Specifically,

Hypothesis 4a. In the crowded environment, perceived pain of donation will mediate the impact of donation type on donation likelihood.

Hypothesis 4b. In the non-crowded environment, such a mediation will not be observed.

[Insert Figure 1 around here]

METHODS & RESULTS

Study 1

Sampling and design

The purpose of Study 1 is to test H1-2. Participants (n=120) were US consumers recruited via Amazon Mechanical Turk (MTurk). MTurk is commonly adopted to conduct consumer surveys and experiments, as the data tend to meet or exceed the psychometric standards determined by the data from other sources, such as undergraduate samples (Buhrmester, Talaifar, & Gosling, 2018). To ensure data quality, participants were screened with the following criteria: (1) an approval rate equal to or higher than 98 percent and (2) 500 or more previous attempts in completing tasks on MTurk (Peer, Vosgerau, & Acquisti, 2014).

Study 1 used an experimental design where donation type (round-up vs. flat-dollar) was manipulated as a between-subject factor. Participants were instructed to imagine themselves dining out for lunch. After placing an order for a sandwich, a cashier states that the total is $10.51. In the round-up donation condition, participants were asked to round up their total to $11 and donate the extra 49 cents to a non-profit organization that provides educational services to children in a homeless shelter. In the flat-dollar condition, participants were asked to donate 50 cents to the same organization so their total becomes $11.01. Manipulations of donation type were adapted from Kelting et al. (2019). After reading the scenario, participants were asked a battery of survey questions and demographic questions.

Measures

Donation likelihood was measured with three items (e.g., “The likelihood that I would make a charitable donation in the given restaurant scenario is”; 1 = very low, 7 = very high; α

= .98; Kelting et al., 2019). Perceived pain of donation was measured following Thomas et al. (2011). Specifically, regardless of participants' intention to donate, they indicated how they would feel about donating the amount of money that the cashier requested using a smile slider scale. Then, they were asked to indicate whether they felt seven negative emotions (e.g., irritated, annoyed, and restricted) about the donation request. Participants' answers to the smile scale and the number of emotion adjectives check-marked were summed for perceived pain of donation. Scenario realism was measured with two items ("How realistic was the restaurant scenario?" and "How easy was it to project yourself in the scenario?"; 1 = not at all, 7 = very much; $r = .73$, $p < .01$; Wu, Mattila, & Hanks, 2015). Please see Appendix B for a complete list of survey measures.

Descriptive analyses

On average, participants were 37 years old (SD = 11.24). Sixty-four percent of the participants were male, 41 percent had an annual household income from $40,000 to $79,999, 48 percent earned a college degree, and 32 percent dined out a few times per month (Table 1). Participants perceived our scenarios as realistic (M = 6.08, SD = 1.02). An independent samples t-test showed that the mean rating of scenario realism did not differ across the round-up (M = 6.11) and the flat-dollar (M = 6.06) condition (t (118) = -.31, $p > .1$).

[Insert Table 1 around here]

Hypothesis testing

To test H1, an independent samples t-test was run. Donation likelihood was higher in the presence of round-up (vs. flat-dollar) donations ($M_{round\text{-}up} = 5.29$, $M_{flat\text{-}dollar} = 4.31$, t (116) = 2.60, $p < .05$). Thus, H1 is supported. To test H2, a series of regression models was run via PROCESS (Model 4; bias-corrected bootstraps = 10,000; IV: donation type dummy coded with 0 = flat-

dollar and 1 = round-up, Mediator: perceived pain of donation, DV: donation likelihood; Hayes, 2017). Results showed that the indirect effect of perceived pain of donation was significant (Effect = 0.55, Boot SE = 0.28, 95% C.I. excluding zero from 0.03 to 1.11). The direct effect of donation type on donation likelihood was not significant (Effect = 0.43, Boot SE = 0.28, 95% C.I. including zero from -0.12 to 0.98), indicating a full mediation. Therefore, H2 is supported.

Study 2

Sampling and design

The purpose of Study 2 is to test H3-4. Participants (n=248) were US consumers recruited via MTurk. To ensure data quality, participants were screened out based on the criteria as used in Study 1. Study 2 adopted a 2 (crowding: not crowded vs. very crowded) by 2 (donation type: round-up vs. flat-dollar) experimental design. Crowding and donation type were manipulated via scenarios as between-subject factors. Participants were randomly assigned to one of the four experimental conditions and imagined themselves dining out for lunch and the restaurant was either very crowded or not crowded at all (Appendix A). Upon placing an order, a cashier asked if they would like to round up their total bill ($9.01) to the nearest integer and donate the difference (vs. donate one dollar) to Food For The Poor, a charity focused on providing food, shelter, and education to the poor. Manipulations of donation type were adapted from Kelting et al. (2019). After reading the scenario, participants were asked a battery of survey questions and demographic questions.

Measures

Donation intention was measured with the three items as used in Study 1 ($\alpha = .98$; Kelting et al., 2019). Perceived pain of donation was measured following the same procedure as in Study 1 (Thomas et al., 2011). Attitude toward the charity was measured with three items (unfavorable-favorable, bad-good, and negative-positive; $\alpha = .97$; Freling & Forbes, 2005). Following Hanks et al. (2017), this study entered attitude toward the charity as a control variable in the regression model. The manipulation check for crowding was captured with one item ("How crowded do you think the restaurant was?"; 1=not crowded at all, 7=very crowded;

Maeng et al., 2013). Scenario realism was measured with the two items as used in Study 1 (r = .71, p < .01; Wu et al., 2015).

Descriptive analyses

On average, participants were 35 years old (SD = 9.31) and, 55 percent of them were male (Table 1). Twenty-eight percent of the participants had an annual household income ranging from $40,000 to $59,999. About half of the participants had a college degree, and 28 percent of them generally dine out a few times a month. On average, participants perceived our scenarios as realistic (M = 6.20, SD = 0.94), A two-way ANOVA showed that main effects of crowding (F (1, 244) = 3.16, p > .05) and donation type (F (1, 244) = 2.82, p > .05) and their interaction (F (1, 244) = 1.08, p > .1) were not significant. That is, scenario realism did not differ across the four experimental conditions.

Manipulation check

A two-way ANOVA showed that only the main effect of crowding was significant (F (1, 244) = 1143.57, p < .01). Specifically, the mean rating of perceived crowding was higher in the crowded (vs. non-crowded) condition ($M_{crowded}$ = 6.03, $M_{non\text{-}crowded}$ = 1.64). The main effect of donation type (F (1, 244) = 0.95, p > .1) and the interaction (F (1, 244) = 1.41, p > .1) were not significant. Therefore, our crowding manipulation was deemed effective.

Hypothesis testing

To test H3, we ran a two-way ANCOVA on perceived pain of donation. The results showed that the interaction between donation type and crowding was significant (F (1, 243) = 6.09, p < .05). Neither of the main effects was significant (ps > .1). Attitude toward the charity as

a covariate was significant (F (1, 243) = 35.73, $p < .01$). To better understand the interaction, an analysis of simple effects was conducted (Figure 2). In the crowded environment, perceived pain was lower in the round-up (vs. flat-dollar) donation request ($M_{round\text{-}up} = 3.03$, $M_{flat\text{-}dollar} = 3.72$; F (1, 244) = 5.78, $p < .05$), supporting H3a. Conversely, in the non-crowded environment, perceived pain did not differ across the two types of donation ($M_{round\text{-}up} = 3.71$, $M_{flat\text{-}dollar} = 3.25$; F (1, 244) = 0.95, $p > .1$), supporting H3b.

To test H4, a series of regression models was run via PROCESS (Model 7; bias-corrected bootstraps = 10,000; IV: donation type dummy coded with 0 = flat-dollar and 1 = round-up, Moderator: crowding level dummy coded with 0 = non-crowded and 1 = crowded, Mediator: perceived pain of donation, DV: donation likelihood; see Table 2). The results showed that an index of moderated mediation was significant (Index = 0.34, SE = 0.16, 95% C.I. excluding zero from 0.06 to 0.71). Specifically, in the crowded environment, the indirect effect of perceived pain of donation was significant (Effect = 0.21, SE = 0.10, 95% C.I. excluding zero from 0.02 to 0.42), supporting H4a. Conversely, in the non-crowded environment, the indirect effect of perceived pain of donation was not significant (Effect = -0.14, SE = 0.12, 95% C.I. including zero from -0.41 to 0.06), supporting H4b. In sum, H4 is fully supported.

[Insert Figure 2 around here]

[Insert Table 2 around here]

GENERAL DISCUSSION

Consumer prosocial behaviors are an important topic in the hospitality and tourism industry. As the success of a donation campaign hinges upon consumer participation, it is crucial to understand how different types of donation messages influence consumer responses to charitable appeals. The current work investigates the effectiveness of a round-up (vs. flat-dollar) donation (Study 1) and the moderating effect of crowding in the restaurant context (Study 2). The results from Study 1 reveal that a round-up (vs. flat-dollar) donation decreases perceived pain of donation, thereby increasing donation likelihood. The results from Study 2 illustrate that perceived pain of donation mediates the impact of a round-up (vs. flat-dollar) donation on donation likelihood in a crowded restaurant. Conversely, such a mediation is not observed in a non-crowded restaurant. Consequently, our findings help cause-related marketing managers in the hospitality and tourism field formulate effective donation messages based on the busyness and crowding level in a service establishment.

Theoretical implications

First, the findings from this study contribute to the donation literature. Previous research documents the effectiveness of various types of donation messages such as self- vs. society-serving appeals (White & Peloza, 2009; Wu et al., 2017), matching donations (Choi et al., 2019; Hanks et al., 2017), and fitness donation appeals (Choi et al., 2019). However, the literature examining differences between round-up and flat-dollar donations is scarce (see Kelting et al., 2019 for a notable exception). Although previous research demonstrates that round-up (vs. flat-dollar) donations increase donation likelihood (Kelting et al., 2019), no study has examined when and why such an effect is magnified or attenuated. To the best of our knowledge, the

current study is among the first to establish the boundary effect of crowding on the effectiveness of round-up (vs. flat-dollar) donations. Specifically, this study reveals that the effectiveness of a round-up donation in driving donation behaviors is more pronounced in the crowded (vs. non-crowded) environment.

The donation literature documents the importance of social influence on consumers' donation behaviors (Choi & Seo, 2017; Gao & Mattila, 2019; Hanks et al., 2017; Line et al., 2018; Wu et al., 2017; Zhang et al., 2019). For instance, Wu et al. (2017) demonstrate that the impact of presence of a dining companion on donation likelihood hinges on donation message type (self-serving vs. other-serving). Gao and Mattila (2019) show that the effect of loyalty reward type (effort-based vs. luck-based) on consumer's propensity to donate reward points depends on the presence of fellow consumers. This stream of research has dominantly compared the presence and absence of other consumers. However, it benignly overlooked the volume of social presence. The current study thus advances our understanding of crowding as a boundary condition in consumer responses to round-up vs. flat-dollar donation appeals.

Furthermore, the present study is different from previous research demonstrating the impact of social influence on donation behaviors. Prior research has examined various types of social presence and tie strength between the focal consumer and other consumers. Specifically, Line et al. (2018) examine similarity between the focal consumer and other consumers while Zhang et al. (2019) and Hanks et al. (2017) investigate relationship type (romantic vs. professional, server vs. friend, respectively). This stream of literature proposes impression management concerns as an underlying mechanism for donation behaviors in the presence of other consumers (e.g., White & Peloza, 2009; Wu et al., 2017). However, impression

management concerns are not as relevant in understanding why consumers increase their donation intention in response to round-up (vs. flat-dollar) donation appeals specifically. The current study builds on the prospect theory (Tversky & Kahneman, 1979) and mental accounting theory (Thaler, 1985) to demonstrate the mediating effect of perceived pain of donation in the relationship between round-up (vs. flat-dollar) donation appeals and donation likelihood.

Lastly, the present study contributes to the crowding literature. The crowding literature has investigated how crowding influences consumer inferences about quality of service (Kim et al., 2009; Noone & Mattila, 2009b) and restaurant reputation/image (Kim et al., 2009; Jang et al., 2015). Previous research has further documented the effects of crowding on approach-avoidance behaviors (Hwang et al., 2012; Noone & Mattila, 2009a), consumer responses to prevention- and promotion-framed messages (Maeng et al., 2013), consumer inferences about status of other consumers and product valuations (O'Guinn, Tanner, & Maeng, 2015), dining satisfaction (Kim et al., 2016; Hwang et al., 2018; Song & Noone, 2017), calorie consumption (Hock & Bagchi, 2018), and queue experiences (Mattila & Hanks, 2012). However, there is a paucity of research illustrating how crowding levels influence consumer responses to donation requests. This study thus adds to the crowding literature by extending the effects of crowding on consumer donation to the restaurant context.

Practical implications

Given the significant impact on firm performance, cause-related marketing (CRM) initiatives have become a strategic focus of many hospitality and tourism companies (Giebelhausen et al., 2016, 2017). Emerging evidence demonstrates that consumers' increased participation in donation campaigns tends to spill-over to their overall service evaluations

(Giebelhausen et al., 2016, 2017). As such, hospitality firms are experimenting with various ways of engaging consumers in their CRM programs (Gao & Mattila, 2014; Mattila et al., 2016; Zhang & Mattila, 2015). Indeed, understanding what drives consumer engagement is crucial to optimize donation appeals in different service environments. Our findings suggest that cause-related marketing managers in the hospitality industry should be attentive to social cues that influence consumers' donation behaviors: social crowdedness. Specifically, we show that consumers are more likely to participate by rounding up the bill (vs. flat-dollar) as they perceive a lower level of pain in donating, particularly in a crowded environment. Although round-up vs. flat dollar donation appeals are relatively new, they are ubiquitous across retail shops, fast food, and casual dining restaurants (Giebelhausen et al., 2017). As such, our findings are widely applicable to various sectors in the hospitality industry.

Hospitality managers may want to encourage consumers to round-up their bill to the next whole dollar and donate the difference to a charity (i.e., round-up donation) during peak hours. Hospitality managers can also train front-line employees to promote round-up (vs. flat-dollar) donation appeals to involve as many consumers as possible based on their operating hours, servicescape, or location. For hospitality companies with reduced operating hours (e.g., serving dinner only from 6pm to 10pm), managers might face crowding issues throughout their operating hours. Thus, they can adopt a round-up (vs. flat-dollar) donation message at checkout to increase consumer donations. For restaurants with no separate waiting area, consumers might feel highly cramped and thus perceived crowdedness might be heightened. As such, managers of such restaurants should consider employing round-up (vs. flat-dollar) donation appeals. On the other hand, for companies with extended operating hours (e.g., serving both lunch and dinner without a break in between), managers can be more flexible adopting either round-up or flat-dollar

donation appeals during non-peak hours. For restaurants relying on delivery or takeaway, crowding issues are not as relevant. Particularly, in light of the COVID-19 pandemic in the US, dine-in options are often restricted by government/state orders to allow for social distancing (Samora, 2020). Thus, such restaurants can be flexible using either round-up or flat-dollar donation messages.

Lastly, for restaurants whose dining areas consist of cubicles to cater to solo diners (e.g., ICHIRAN; a Japanese chain specializing in ramen), consumer perceptions of crowding are not as salient. Thus, managers of such restaurants can be flexible in employing either round-up or flat-dollar donation appeals. For high-end restaurants or other restaurants where social crowdedness is not a prevailing norm, managers can adopt either round-up or flat-dollar donation appeals. Note that our findings are based on the assumption that crowding induces negative emotions and prevention focus (Hwang et al., 2012; Maeng et al., 2013), thereby increasing attention to cues that reduce potential losses. In social gatherings that involve in-group members (e.g., weddings or anniversary events), crowding might not increase prevention focus and negative emotions. As such, for hospitality managers organizing such events, either round-up or flat-dollar donation appeals can be employed.

Limitations and future research

The current study raises several questions to be addressed in future research. First, by employing scenario-based experiments in an online setting and by relying on self-reported data, our results are not free from the social desirability bias (Fisher, 1993; Louie & Obermiller, 2000). Future research is needed to capture consumers' actual donation behaviors in a field setting. Although extensively validated by previous researchers (e.g., Hock & Bagchi, 2017;

Maeng et al., 2013; O'Guinn et al., 2015), manipulations of crowdedness through pictorial stimuli have limitations regarding ecological validity. Thus, future research should either conduct a field experiment with a real restaurant setting or adopt alternative ways to test the effect of social crowdedness in a more naturalistic setting (e.g., instructing participants to go to a public space, having them focus on the environmental features of their current location; e.g., Consiglio, De Angelis, & Costabile, 2018).

In addition to social crowdedness, there are other factors that may affect individuals' prevention focus. One such factor might be cultural background of consumers (individualistic vs. collectivistic cultures). In individualistic cultures, people are motivated to stand out from their group (Markus & Kitayama, 1991) and tend to focus on their personal achievements and aspirations (Heine & Lehman, 1997). Thus, individuals tend to favor promotion over prevention strategies, focusing on positive outcomes they look forward to rather than negative outcomes they avoid (Elliot et al., 2001; Lockwood, Marshall, & Sadler, 2005). On the other hand, in collectivistic cultures, individuals are motivated to fit in with their group and maintain social harmony (Markus & Kitayama, 1991). They tend to focus on their responsibilities and obligations to others while trying to avoid behaviors that might cause social disruptions or disappoint significant others in their lives (Heine et al., 1999). In collectivistic cultures where people possess a more interdependent self-view, individuals might favor prevention over promotion strategies, focusing on reducing negative outcomes rather than increasing positive outcomes (Elliot et al., 2001; Lockwood et al., 2005). Given such cultural differences, the effectiveness of round-up donation appeals might be more pronounced in collectivistic cultures (e.g., China, South Korea, and India), as compared to individualistic cultures (e.g., U.S., Canada).

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Table 1. Demographic Profile of Participants

		Study 1	Study 2
		n (%)	n (%)
Gender	Male	77 (64.2)	136 (54.8)
	Female	43 (35.8)	112 (45.2)
Income	Less than $20,000	12 (10.0)	18 (7.3)
	$20,000-$39,999	29 (24.2)	62 (25.0)
	$40,000-$59,999	30 (25.0)	70 (28.2)
	$60,000-$79,999	19 (15.8)	47 (19.0)
	$80,000-$99,999	11 (9.2)	22 (8.9)
	$100,000-$119,999	10 (8.3)	10 (4.0)
	$120,000-$149,999	8 (6.7)	13 (5.2)
	$150,000 or above	1 (0.8)	6 (2.4)
Education	High school or equivalent	12 (10.0)	29 (11.7)
	Some college education	30 (25.0)	72 (29.0)
	College degree	58 (48.3)	121 (48.8)
	Graduate school/ professional degree	20 (16.7)	25 (10.1)
	Other	0 (0)	1 (0.4)
Frequency of dining out	Rarely	7 (5.8)	17 (6.9)
	About once every three months	13 (10.8)	19 (7.7)
	About once a month	16 (13.3)	50 (20.2)
	A few times per month	38 (31.7)	69 (27.8)
	About once a week	29 (24.2)	64 (25.8)
	A few times per week	17 (14.2)	27 (10.9)
	Almost everyday	0 (0)	2 (0.8)
	Total	120 (100.0)	248 (100.0)

Table 2. Results from Study 2

		Consequent						
		M (perceived pain)				Y (donation intention)		
Antecedent		Coeff.	*SE*	*p*		Coeff.	*SE*	*p*
X (donation type)	*a*	.46	.33	.16	*c*	.03	.23	.89
M (perceived pain)		-	-	-	*b*	-.30	.06	< .01
W (crowding)		.46	.29	.11		-	-	-
X × W		-1.15	.47	.01		-	-	-
Attitude toward charity		-.50	.08	< .01		.95	.09	< .01
Constant	*i*	5.98	.49	< .01	*i*	-.31	.60	.61
		$R^2 = .15$				$R^2 = .46$		
		$F(4, 243) = 10.82, p < .01$				$F(3, 244) = 70.61, p < .01$		

Figure 1. Conceptual model

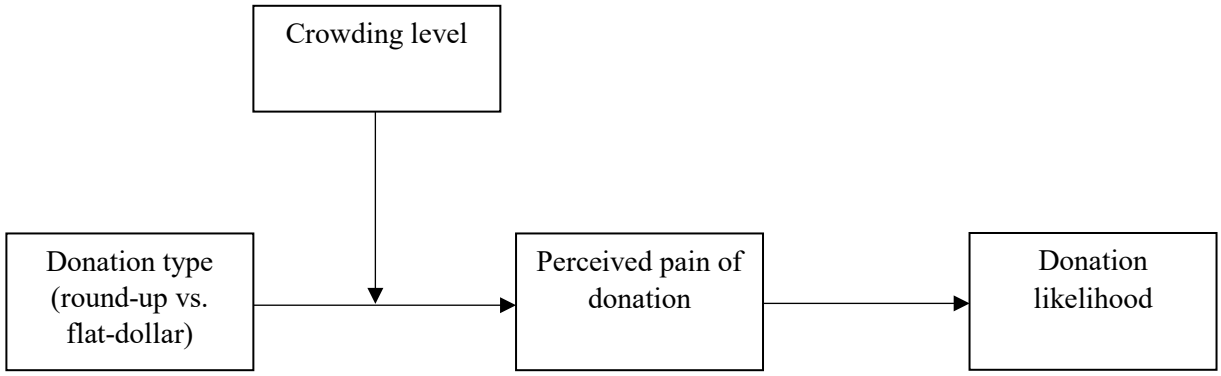
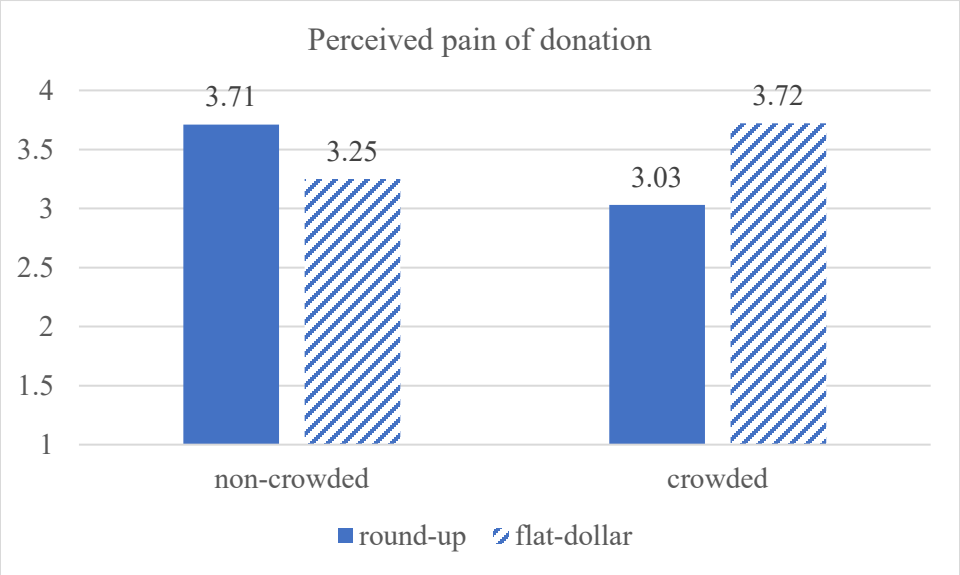


Figure 2. ANOVA results from Study 2



Appendix A. Scenarios

[Crowded]

You decide to go out for lunch. Since you just hit the peak time period, the restaurant is very crowded. Servers look very busy rushing through the dining tables. Almost all dining tables are occupied but there is one available in the middle of the dining room.

[Not crowded]

You decide to go out for lunch. Since you just missed the peak time period, the restaurant is not crowded. Only several dining tables are occupied.

[Round-up donation]

You place an order and the cashier says to you,

"Your total is $9.01. Today, we are requesting charitable donations on behalf of Food for the Poor, a charity focused on providing food, shelter, and education to the poor. Would you like to round up your total to the next whole dollar amount and donate the difference to Food for the Poor?"

[Flat-dollar donation]

You place an order and the cashier says to you,

"Your total is $9.01. Today, we are requesting charitable donations on behalf of Food for the Poor, a charity focused on providing food, shelter, and education to the poor. Would you like to donate $1.00 to Food for the Poor?"

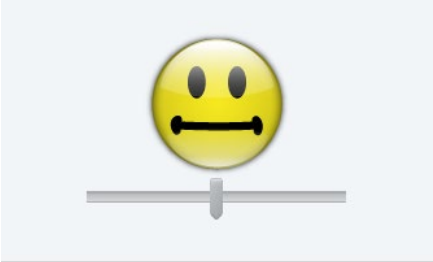
Appendix B. Survey measures

Donation Likelihood (1=very low, 7=very high; Kelting et al., 2019)

The likelihood that I make a charitable donation in the scenario is
The probability that I make a charitable donation in the scenario is
My willingness to make a charitable donation in the scenario is

Perceived Pain of Donation (Thomas et al., 2011)

Regardless of whether you decided to donate, how would you feel about donating the amount of money that the cashier requested? Please indicate how you would feel using the sliding scale below:



1=☹, 3=😐, and 5=☺ (reverse-coded)

Please check all the words that describe your feelings about the donation request:

Irritated

Restricted

Annoyed

Powerless

Controlled

Suffocated

Inhibited

None of the above