Italian Journal of Marketing
https://doi.org/10.1007/s43039-025-00112-2

ORIGINAL ARTICLE

When sales promotions make consumers experiencing financial restrictions purchase more or less: the role of decisional conflict

Aulona Ulqinaku[1,2] · **Gülen Sarial-Abi**[3]

Received: 15 February 2025 / Accepted: 25 April 2025

Abstract
Sales promotions are common tools in marketing, used to attract more customers and increase sales. Yet, there is no systematic academic research that investigates what type of customers prefer which types of sales promotions. Addressing this research gap, we examined how consumers with financial restrictions, who would be more vulnerable to attractive offers in the marketplace, respond to different sales promotions. The findings from four experimental studies showed that consumers with financial restrictions were less likely to use the sales promotion when the sales promotion was based on high-low pricing (vs. everyday low-pricing), and when the sales promotion was for a limited (vs. not limited) period of time. However, consumers with financial restrictions were more likely to use the sales promotion when it was buy-one-get-one-free (vs. buy-one-get-one-X% off) sales promotion. We showed that decisional conflict explained the responses of financially restricted consumers to different types of sales promotions.

Keywords Financial restrictions · Sales promotions · Pricing strategies · Decisional conflict

✉ Aulona Ulqinaku
a.ulqinaku@leeds.ac.uk

Gülen Sarial-Abi
gsa.marktg@cbs.dk

1 Leeds University Business School, University of Leeds, Maurice Keyworth Building, Woodhouse, Leeds LS2 9JT, UK

2 School of Business and Economics, Department of Business Management, LIUC Università Carlo Cattaneo, C.so Matteotti, Castellanza, Varese, Italy

3 Copenhagen Business School, Marketing Department, Solbjerg Plads 3, Frederiksberg 2000, Denmark

Published online: 15 May 2025

1 Introduction

Firms increasingly use sales promotions to build long-term relationships with customers as well as generate temporary sales boosts for their products and services (del Olivares et al., 2018). Each year nearly 500 billion dollars are spent on promotions around the world (Forum, 2016). According to the retail data intelligence experts Edited, during Black Friday in 2020, the US implemented the most aggressive discounting strategy with price discounts between 40 and 59% (Adegeest, 2021). In line with these numbers, extant academic literature has largely investigated how monetary and non-monetary sales promotions influence purchases of discounted products (Blattberg & Neslin, 1989), consumer retention rate (Pauwels et al., 2002), product quality perceptions (Ashworth et al., 2005), price sensitivity and future discount requirements (Kalwani & Yim, 1992), opportunistic behavior (Mela et al., 1997), and brand loyalty (Papatla & Krishnamurthi, 1996). In this research, we extend previous research on sales promotions and examine how consumers who experience financial restrictions respond to different sales promotions. We first provide the research motivation.

Having financial restrictions is defined as sensing or observing a discrepancy between one's current level of financial resources and a higher, more desirable reference point (Cannon et al., 2019). It is an unpleasant psychological state in which consumers feel financially worse or inferior relative to a salient comparison standard because they perceive a deficit in their financial resources (Sharma & Alter, 2012). Financial restrictions can be activated temporarily, and also individuals who may be typically considered middle-class by their incomes can experience financial restrictions at some time in their lives (Schor, 1998). As all individuals can experience financial restrictions at some time in their lives, consumers with financial restrictions are a large market.

Not surprisingly, there is a growing body of work in the marketing literature on the behaviors of consumers with financial restrictions. Financial restrictions highlight opportunity cost consideration (Spiller, 2011) and encourage stretching one's resources (Fernbach et al., 2015). Financial restrictions affect individuals' preferences for, and consumption of, products. Having financial restrictions motivates consumers to attend, choose, and consume scarce goods overabundant goods (Sharma & Alter, 2012), goods over experiences (Tully et al., 2015), and necessities over discretionary products (Cole et al., 2008). Our review of the literature indicates that past research, with one exception (Fan et al., 2019), has not examined how consumers experiencing financial restrictions respond to sales promotions.

In this research, we first investigated how consumers experiencing financial restrictions responded to a sales promotion (vs. no sales promotion). We then examined these consumers' responses to sales promotions that had only a price benefit (e.g., everyday low price vs. high-low pricing, limited-time offers) and sales promotions that had both a price and an additional benefit (e.g., buy-one-get-one-free offers). We suggest that decisional conflict experienced by consumers with financial restrictions when they receive an attractive offer in the form of a sales promotion is the unifying theoretical framework that explains these consumers' responses to different sales promotions. We further suggest that consumers with financial restrictions cope with

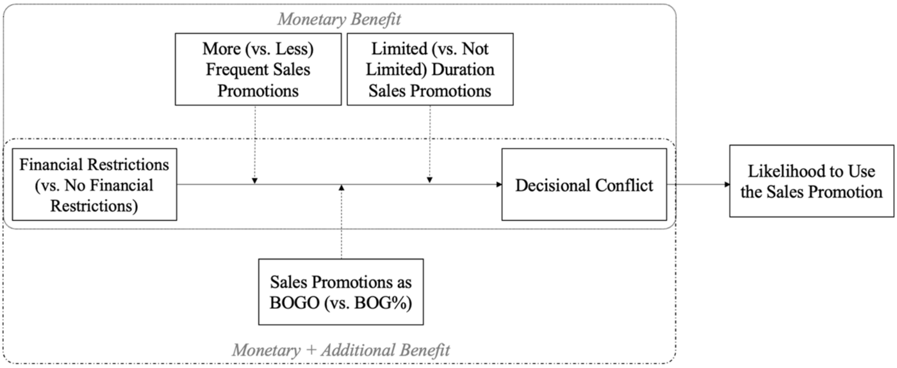

Fig. 1 Conceptual framework of the tested model

the decisional conflict they experience as a result of the attractive offers they receive in the form of sales promotions by purchasing more or less using the sales promotion depending on whether the sales promotion offers only a price benefit or a price benefit and an additional benefit. Please refer to Fig. 1 for the conceptual framework.

The paper's findings extend the literature in multiple ways. First, in a novel departure from past research on sales promotions, we focus on financially restricted consumers' responses to sales promotions. In doing so, this investigation's findings extend the literature on sales promotions by studying a category of consumers unexplored in the literature. Although having chronically low financial resources and experiencing financial restrictions are very much related, in this paper we do not particularly focus on individuals who are chronically poor and experience financial restrictions. We investigate consumers whose experience of financial restrictions can be activated temporarily. The findings indicate that individuals experiencing financial restrictions have more decisional conflict when they are exposed to a product with sales promotion (vs. no sales promotion). Second, our work is the first to demonstrate how consumers experiencing financial restrictions respond to the decisional conflict as a result of different attractive offers they receive, which extends the nascent research on financial restrictions and sales promotions in a novel manner. Third, the moderators that are tested in this paper demonstrate under which conditions decisional conflict leads to more or fewer purchases depending on the different types of sales promotions that consumers experiencing financial restrictions receive. In doing so, we identify decisional conflict, promotion type (price-only vs. price-plus), and coping responses as key constructs that shape financially restricted consumers' purchase behavior. This way, we offer findings that can contribute to the literature on financially restricted consumers' responses to different sales promotions.

2 Conceptual background

Sales promotion involves some type of urge that provides an extra reason for purchase (Schultz & Robinson, 1982). This urge is accepted to be in addition to the basic benefits that the brand offers and it temporarily changes how the consumers perceive and/or value the brand (Strang, 1983). As it is believed that sales promotion accelerates sales and maximizes sales volume (Neslin et al., 1985), it has been accepted as a useful tool to achieve the sales goals of producers and retailers (Alvarez & Casielles, 2005) and it is regarded to be the most useful tool in comparison to the other promotional tools. Although marketers cut their expenditures on advertising continuously, their emphasis on sales promotion increases (Shimp, 2010).

Consumer responses to sales promotion have been studied in multiple industries and contexts (Owens et al., 2001). One stream of research suggests that sales promotions are beneficial in different aspects by (1) triggering unplanned purchases (Inman et al., 1990), (2) encouraging consumers to purchase non-promoted products (Mulhern & Padgett, 1995), and (3) stockpile (Blattberg et al., 1981), and (4) accelerating the number of visits to the store (Walters & Rinne, 1986). The majority of the empirical research investigating the effects of sales promotions examined the short-term effects of sales promotions and showed that sales promotions have large short-term effects on the brand choice of consumers (Gupta, 1988; Kamakura & Russell, 1989).

Another stream of research suggests that sales promotions do not have any noticeable effect on either sales or brand loyalty for established brands (Ehrenberg et al., 1994). Consistently, research shows the negative long-term effect of sales promotions on consumer attitudes and behavior suggesting that (1) increased number of promotions might signal the consumers that the key difference between the brands in a category is price (Sawyer & Dickson, 1984), (2) consumers may attribute their purchase to the presence of the promotions but not to their actual preference (Dodson et al., 1978), and (3) sales promotions may make consumers to look for promotions in the future (Krishna et al., 1991). Consistent with the mixed findings on the effects of sales promotions on consumer attitudes and behavior, Davis et al. (1992) suggest that sales promotions have no negative effect on brand evaluations, while other research suggests that sales promotions make consumers more price-sensitive (Mela et al., 1997).

There are different categorizations of sales promotions in the literature. Sales promotions can be defined as active or passive, in which promotions such as coupons involve active search by the consumers, whereas in-store promotions require limited search within the store (Schneider & Currim, 1991). Sales promotion can also be categorized as non-monetary and monetary sales promotion. While monetary promotion provides a monetary savings benefit to customers, non-monetary promotions provide benefits to the customers other than the monetary benefits. Previous research has investigated consumers' responses to monetary and non-monetary sales promotions (Chandon et al., 2000; Kwok & Uncles, 2005). Non-monetary promotions present non-monetary benefits like providing gifts, bonuses, or a chance to win contests or sweepstakes upon purchasing a product. In the long run, non-monetary sales promotion is considered to be more favorable compared to monetary sales promotion (Yi & Yoo, 2011) as they help to enhance the brand value (Mela et al., 1997) and have a positive impact on brand quality perceptions (Buil et al., 2013).

Research shows that there are both positive and negative consequences of monetary promotions. The perception that one has "gotten a good deal" (Lichtenstein et al., 1990) and dampened the "pain of payment" experienced from the transaction are among the positive responses of consumers to monetary promotions. These perceptions, in turn, have been shown to have behavioral consequences such as the enjoyment of the consumption, elevated mood, and increased propensity to purchase (Heilman et al., 2002; Knutson et al., 2007).

On the other hand, another stream of research shows the negative consequences of monetary promotions. As a result of monetary promotions, there may be a significant decrease in brand loyalty (Gedenk & Neslin, 1999), increased price sensitivity, and lower price expectations (Kalwani & Yim, 1992; Mela et al., 1997). Consumers who pay a discounted price for a product (e.g., an energy drink thought to increase mental acuity) derive less actual benefit from it (being able to solve fewer puzzles as a result) than they would if they paid a regular price (Shiv et al., 2005). Monetary promotions have also been shown to lower consumers' perceptions of brand quality (Dodson et al., 1978) and perceived product efficacy (Irmak et al., 2005). Monetary promotions may also have cognitive effects such that they may reduce attention during consumption (Wathieu & Bertini, 2007).

Price discounts are one of the most widely used monetary promotions by marketers. A large body of research shows that price discounts can have positive effects on how consumers perceive the value of the offer (Darke & Dahl, 2003; Inman et al., 1997). Price discounts improve the utility of consumers by reducing the economic sacrifice that consumers have to make for consumption (Aydinli et al., 2014), leading to increased sales (Urbany et al., 1988). The more discount depth (i.e., the bigger the disparity between the original selling price and the current discounted price) consumers perceive, the more positive associations they have with the deal, increasing their purchase intentions (Krishna et al., 2002).

Price discounts can also lead to negative consumer perceptions. Brands that have higher deal frequency have a smaller market share gain and lower expected price compared to brands that have a lower deal frequency (Gurumurthy & Little, 1987; Kalwani et al., 1990). Some consumers are skeptical of the discounts (Obermiller & Spangenberg, 1998; Urbany et al., 1988). Some consumers perceive the lower selling price as the true price (Ortmeyer et al., 1991) or undermine the quality of the discounted products (Darke & Chung, 2005). While previous research provides evidence of the positive and negative effects of price promotions on the attitudes and behavior of consumers, there is research that suggests that there are some consumers who are more deal-prone (Lichtenstein et al., 1997). Other research suggests that response to promotions, in general, and price promotions, in particular, highly depend on lifestyle and demographic variables (Blattberg & Neslin, 1989; Mittal, 1994). For example, consumers who are smart shoppers may be more likely to use coupons while consumers who are more impulsive may be more likely to be positively influenced by the in-store promotions (Blattberg & Neslin, 1989). With the research showing different effects of promotions on consumer responses, it is still a dilemma for the marketers on which option to follow, especially more dilemmas for consumers experiencing financial restrictions. In this research, we focus on financially restricted consumers' responses to different sales promotions.

3 Hypotheses

When resources to satisfy the necessary needs are insufficient, scarcity occurs (Mani et al., 2013; Mullainathan & Shafir, 2013). Consumers often perceive as if their resources in life are lacking (Roux et al., 2015), mostly when they want more than what they have (Fan et al., 2019). Consistently, in this research, we define financial restriction as the condition in which consumers are not able to get what they want given the financial resources they have in their lives.

Financial restrictions influence consumers' preferences. Those who have financial restrictions purchase durable goods less (Karlsson et al., 2005), purchase goods that are unavailable to other consumers in their environment (Sharma & Alter, 2012), spend their money more quickly (Cole et al., 2008), are less susceptible to context effects (Shah et al., 2012), engage in less word-of-mouth (WOM) (Paley et al., 2019), prefer material goods over experiences (Tully et al., 2015), and prefer range-offers (Fan et al., 2019).

Financial restrictions also influence the cognitive functioning of consumers. Financial restrictions impede cognitive functioning (Mani et al., 2013), increase concerns about the lasting utility of their purchases (Tully et al., 2015), change how people allocate attention by leading them to engage more deeply in some problems while neglecting others (Shah et al., 2012), and increase prioritization (Fernbach et al., 2015) and opportunity cost consideration (Spiller, 2011).

Central to our hypotheses' development is how consumers with financial restrictions respond to sales promotions in the market. Research suggests that a financial restriction creates a challenge by limiting consumer behavior (Hamilton et al., 2019). Consistent with this reasoning, when consumers with financial restrictions receive attractive offers in the form of a sales promotion, they will perceive decisional conflict in addition to the unpleasant feeling they experience because of not having sufficient financial resources to satisfy their needs.

Conflict is present in many aspects of life and is experienced when two or more incompatible responses arise simultaneously in people (Berlyne, 1960; Miller, 1944). Conflict may arise when a person does not know how to trade off risks against value, costs against benefits, or immediate satisfaction against future discomfort (Tversky & Shafir, 1992). Experiencing conflict produces negative emotional states, including psychological stress, anxiety, discomfort, agitation, anticipated dissonance and regret (Armitage & Arden, 2007; Luce et al., 2001; Simonson, 1992; Tversky & Shafir, 1992; Zeelenberg, 1999). Conflict also leads to responses such as changes in heart rate, finger-pulse amplitude, galvanic skin response, reaction time, eye movements, and hesitancy in response (Jones & Johnson, 1973; Mann et al., 1969; Van Harreveld et al., 2009). Conflict results in impaired decision-making (Iyengar & Lepper, 2000; Tversky & Shafir, 1992), and decreased task performance (Shah & Kruglanski, 2002).

The Theory of Cognitive Dissonance (Festinger, 1962) suggests that individuals prefer to be in harmony and avoid situations, in which they experience disharmony. The experience of conflict or disharmony is what is defined as the state of dissonance. While the theory and its applications mostly treat cognitive dissonance as a state that is experienced after consumption (Sweeney et al., 2000), consumers can also experience dissonance in the pre-decision stage of their decision-making process (Festinger, 1962). They may experience dissonance due to the decisional conflict that may arise when there is the simultaneous presence of at least two mutually incompatible response tendencies. Consistently, in this research, we define decisional conflict as the situation in which financially restricted consumers receive a promotional offer, which would cause them to experience a conflict due to their lack of sufficient financial resources and the offer being desirable and attractive.

Building on the above arguments, we suggest that when consumers that experience financial restrictions receive a promotional offer, they will experience a decisional conflict. There may be several reasons for this decisional conflict. First, consumers with financial restrictions are often urged to think about the pros and cons of their purchasing behavior before making a purchase. Perceived restrictions may also prompt consumers to ask themselves "What else should I consider?" (Spiller, 2011). Hence, consumers with financial restrictions may be motivated to consider opportunity costs before making purchases. Considering the opportunity costs of purchasing an attractively marketed product, consumers may experience a conflict as a result of facing an opportunity but having a financial restriction. Second, purchasing attractively marketed items would normally make individuals happy (Westbrook, 1987). However, if one is with financial restrictions, there should be a self-control exercise in order to avoid negative consequences. Hence, rather than being happy when faced with an attractive offer, individuals with financial restrictions may feel less happy. This feeling of reduced happiness may also lead individuals to experience decisional conflict. Third, consumers who have financial restrictions will perceive decisional conflict when they receive attractive market offers because these consumers have a promotion orientation (Fan et al., 2019). When facing a temptation (e.g., promotional offer), consumers with a promotion orientation put a disproportionate focus on the upside of consuming the temptation (Sengupta & Zhou, 2007). Hence, these consumers will experience a motivation to approach the temptation but at the same time will experience an unpleasant feeling not of having sufficient resources to satisfy their needs. Following these arguments, we hypothesize the following:

> H_1: Consumers with financial restrictions will experience more decisional conflict when there is a sales promotion (vs. no sales promotion) on a product.

In developing sales promotions, managers make decisions about how to frame the promotion (Della Bitta et al., 1981). The sales promotion can be in the form of offering only a price benefit, as in the pricing tactics that are based on high-low pricing or limited-duration sales promotions. Or they can be in the form of offering an additional benefit on top of the price benefit, as in the sales promotions with buy-one-get-one offers. Previous research suggests that framing of the promotion may influence consumer perceptions in terms of the value of the promotion (Krishna et al., 2002), which we suggest may differentially influence the decisional conflict experienced by the consumer. Consistent with this view, research shows that consumers' evaluations of the benefits of the promotions positively influence their liking of these promotions (Laroche et al., 2003).

When individuals experience conflict or the state of dissonance, the experienced conflict will prompt a response from the individual to restore harmony or to reduce tension (i.e., conflict or dissonance) (Aronson, 1968; Festinger, 1962). Consumers experiencing such disharmony, dissonance, or conflict aim to remove conflicting cognitions, add consonant cognitions or change the intensity of the conflicting or consonant factors to achieve consistency (Harmon-Jones, 1999; Sears et al., 1991). These strategies include consideration of more of the available information (Janis & Mann, 1977), taking more time when deciding (Bettman et al., 1993), engaging in trade–off thinking and opportunity cost consideration to justify their decisions (Mullainathan & Shafir, 2013; Spiller, 2011) resulting with more systematic processing (Kleiman & Hassin, 2013), all of which help to reduce the experienced conflict.

Following these arguments, we suggest that depending on the characteristics of the sales promotion, consumers with financial restrictions will experience more or less decisional conflict, which would lead to different attitudes toward the promotion being offered by the brand. In what follows, we discuss how consumers experiencing financial restrictions will respond to different sales promotions that offer only price benefits or sales promotions that offer additional benefits along with the price benefits.

3.1 Promotion characteristics: less versus more frequent sales promotions

Consumers receive different promotions with price benefits in different forms. One of the mainly used sales promotions based on price benefits is the use of less (vs. more) frequent sales promotions in the form of high-low pricing (HLP) or everyday low pricing (EDLP) strategies by the companies.

EDLP sales promotions include a pricing strategy, where the retailer charges a constant, lower, everyday price with no temporary price discounts (Hoch et al., 1994; Monroe, 2003). Using an EDLP strategy, brands can convey value to consumers without undermining the quality of the products they offer (Hunt & Morgan, 1994; Ortmeyer et al., 1991). On the other hand, in an attempt to discriminate between price-sensitive and price-insensitive consumers, HLP sales promotions include a pricing strategy, in which the retailer charges higher prices on an everyday basis but then runs promotions in which prices are temporarily lowered below the EDLP level. Previous research shows that deeper discounts offered as in HLP promotions lower future price expectations of the consumers (Alba et al., 1999; DelVecchio et al., 2007).

How will consumers who have financial restrictions respond to EDLP versus HLP sales promotion strategies? We suggest that HLP (vs. EDLP) creates more decisional conflict for consumers with financial restrictions. When the sales promotions are frequent as with the EDLP strategy, consumers who have financial restrictions will experience less conflict with the marketing offer because the temptations will be priced the same (i.e., with low prices) every day. However, these consumers will experience more decisional conflict when they are exposed to sales promotions based on HLP strategy as they will be tempted more with a product that is priced lower than its regular price. Elaborating on the offer to reduce the decisional conflict they experience, consumers with financial restrictions would perceive that the only benefit of the

HLP strategy is a price benefit, which would result in a monetary loss for them if they engage in the consumption. Consequently, we propose H_2:

> H_2: Consumers who have financial restrictions will respond less favorably to sales promotions that are based on high-low pricing (vs. everyday low pricing).

3.2 Promotion characteristics: limited offers

A limited quantity or time promotion is a sales promotion that emphasizes the limited availability of the quantity or the duration (Ku et al., 2012). Restriction in the form of a limited quantity or time curtails a consumer's freedom to purchase the offering (Inman et al., 1997). Research shows that these type of promotions with limited quantity or time may result with different responses by the consumers, including accentuating of the deal value and further promoting the promotion (Inman et al., 1997), or showing more aggressive behavior as individuals that are short of supply (e.g., water or food) tend to show aggression and promotions with limited-quantity leads consumers to perceive the other consumers as competitive threats to obtain the desired product (Griskevicius et al., 2009; Kristofferson et al., 2017).

How will consumers who have financial restrictions respond to sales promotions that are limited (vs. not limited)? Consistent with previous research (Inman et al., 1997) that suggests limited quantity or time offers curtain consumers' freedom to choose, we suggest that consumers with financial restrictions will experience decisional conflict when they receive a limited offer. When the sales promotion is for a limited period of time, consumers who have financial restrictions will experience a decisional conflict. In order to reduce the decisional conflict, since the benefit is only in terms of price and will be perceived as a monetary loss if they engage in consumption, these consumers with financial restrictions will respond less favorably to price promotions with limited-time periods. Hence, we propose H_3.

> H_3: Consumers with have financial restrictions respond less favorably to sales promotions that are for a limited (vs. not limited) time.

3.3 Promotion characteristics: buy-one-get-one-free (BOGO) versus buy-one-get-one-X% off

Research on sales promotions shows that a price promotion can be integrated with the price or can be processed separately from the price (Thaler, 1985; Thaler & Johnson, 1990). Many companies use free gift promotions to attract consumers. Free offers are a frequent form of promotion used for a variety of products and often take very different forms, such as a freebie with purchase (e.g., free lipstick with the purchase of cosmetics), a bundled offering (e.g., buy a computer and printer as one package), and free delivery/shipping. Not surprisingly, previous research examined different theoretical and empirical aspects of free gifts (Laran & Tsiros, 2013; Liu & Chou, 2015; Nunes & Park, 2003). The value-discounting hypothesis argues that because there is a free gift as a promotion, products are valued less (Raghubir et al., 2004).

How will consumers experiencing financial restrictions respond to sales promotions that are offered as buy-one-get-one-free versus buy-one-get-one-X% off? We suggest that buy-one-get-one-free (vs. buy-one-get-one-% off) offers will create more decisional conflict for consumers with financial restrictions. Consumers can integrate discounts with price when the promotion is in the form of buy-one-get-one-X% off as the monetary value of discounts is explicit (Nunes & Park, 2003). Monetary promotions naturally make price the focal point and therefore promote "relativistic" processing, leading to less decisional conflict.

Research shows that consumers prefer "buy one, get one free" rather than "buy two, get 50% off" because in the latter choice, consumers believe that they must buy two items to get the discount while with the first choice they only need to get one item to get the sales promotion (Sinha & Smith, 2000). When the promotion is nonmonetary (such as free shipping or a free gift), consumers are more likely to process it independent of price. It is more difficult to value and convert the free offers into a common unit of measurement when consumers are offered a nonmonetary benefit combined with a monetary transaction because they will be in different currencies (Nunes & Park, 2003). Chandran and Morwitz (2006, p. 384) have argued that the integration of the freebie information into a valuation is difficult because "the monetary value of free promotions is often not explicit." Consequently, these consumers will engage in decisional conflict reduction by purchasing the product that is offered as a buy-one-get-one-free, since for these consumers there will be an additional gain as a result of taking advantage of that particular sales promotion. An extra-product promotion like a "buy one, get one free" promotion is processed as gains by consumers (Diamond & Campbell, 1989). Hence, we propose H_4:

> H_4: Consumers who have financial restrictions will respond more favorably to sales promotions that are buy-one-get-one-free (vs. buy-one-get-one X% off).

4 Empirical testing

4.1 Study 1 – Sales promotions and decisional conflict

In study 1, we tested the prediction that consumers with financial restrictions (vs. without financial restrictions) would experience more decisional conflict when there is a sales promotion (vs. no sales promotion) on a product (H_1).

In study 1, we measured participants' financial income and randomly assigned them to a sales promotion (vs. no sales promotion) condition. We measured participants' decisional conflict. We pre-registered this study at Aspredicted.org (#64292).

4.1.1 Participants

We asked MTurk to collect data from two hundred adults in exchange for 50 cents per participant. Twenty-nine participants failed the attention check. We did all the analyses with the remaining one hundred and seventy-one adults (67 female; M_{age} = 35.01, SD = 10.37).

4.1.2 Procedure

Participants were first randomly assigned to the sales promotions (vs. no sales promotions) conditions. Participants in both conditions saw an offer on the Apple Watch 6 series. Participants in the sales promotion condition read that there was a promotional offer on Apple Watch 6 series, in which the price decreased from $399 to $320. Participants in the no sales promotion condition read that the price of Apple Watch 6 series was $399 (please see Web Appendix for the stimuli used in the study).

Participants then completed the 22-item decisional conflict scale adapted from the cognitive dissonance scale (Sweeney et al., 2000) to reflect their decisional conflict at the moment in time that they considered purchasing the Apple Watch Series 6 ($\alpha = 0.97$) (please see Web Appendix for full scale). To control for the familiarity with the Apple products, in general, and Apple Watch series, in particular, participants indicated the extent to which they are familiar with Apple products and Apple Watch series on two 7-point scales (1 = not at all and 7 = very much). We averaged the scores on these two items to compose familiarity with Apple measure ($\alpha = 0.73$). To control for how much participants like the Apple products, participants indicated the extent to which they like to use Apple products (1 = not at all and 7 = very much). Participants also indicated the extent to which they agree with: (1) One should try to buy the brand that is on sale and (2) I am more likely to buy from brands that are on sale as a measure for deal-proneness on two 7-point scales (1 = not at all and 7 = very much) (adapted from the items used in previous research, e.g., Lichtenstein et al., 1997). We averaged the scores on these two measures to compose the deal proneness measure ($\alpha = 0.82$). Participants also indicated whether they own a product from Apple Watch series (1 = yes and 2 = no). Participants finally provided basic demographic information.

4.1.3 Results

Experience of decisional conflict. To test for H_1 that, consumers with financial restrictions will experience more decisional conflict when there is a sales promotion (vs. no sales promotion) on a product, we used PROCESS Macro Model 1 (Hayes & Preacher, 2014). In this model, income is the independent variable, sales promotion (dummy = 1) vs. no sales promotion (dummy = 0) is the moderator, and decisional conflict is the dependent variable. The results showed an overall significant model, R-square = 0.2312, $F = 16.74$, $p < 0.001$. There was no significant main effect of participants' income, $\beta = 0.0864$, $p = 0.4028$, 95% CI = −0.1170 to 0.2899, but a significant main effect of the sales promotion (vs. no sales promotion) condition, $\beta = 1.80$, $p < 0.001$, 95% CI = 1.02 to 2.59.

The results supported a significant interaction effect between participants' income and sales promotion (vs. no sales promotion) condition on participants' decisional conflict, $\beta = -0.1729$, $p = 0.0090$, 95% CI = −0.3021 to −0.0437. Additional analysis indicated that, when there is a sales promotion, as participants' income increases, the decisional conflict decreases, $\beta = -0.2594$, $p < 0.0001$, 95% CI = −0.3513 to −0.1674. However, when there is no sales promotion, participants' income does not affect the decisional conflict, $\beta = -0.0865$, $p = 0.0617$, 95% CI = −0.1772 to 0.0043. The results hold when we controlled for familiarity with Apple products, $\beta = -0.1758$, $p=0.0084$, 95% CI $=-0.3059$ to -0.0458, liking to use Apple products, $\beta = -0.1714$, $p=0.0095$, 95% CI $=-0.3004$ to -0.0423, whether they own a product from Apple watch series, $\beta = -0.1701$, $p=0.0094$, 95% CI $=-0.2979$ to -0.0423, deal proneness, $\beta = -0.1738$, $p=0.0081$, 95% CI $=-0.3019$ to -0.0458, age, $\beta = -0.1706$, $p=0.0101$, 95% CI $=-0.3001$ to -0.0411, and gender, $\beta = -0.1729$, $p=0.0092$, 95% CI $=-0.3025$ to -0.0433.

The results of study 1 extend the previous literature on financial restrictions and sales promotions and support the prediction that consumers with financial restrictions (vs. no financial restrictions) experience more decisional conflict when there is a sales promotion (vs. no sales promotion) on a product (H_1). In study 2, we tested our prediction about how everyday low pricing (vs. high-low pricing) sales promotion influences the intention to use the sales promotion for those who have financial restrictions (vs. no financial restrictions) (H_2).

4.2 Study 2 – Everyday low pricing versus high-low pricing

In study 2, we tested the prediction that consumers with financial restrictions (vs. without financial restrictions) would respond less favorably to sales promotions based on high-low pricing (vs. everyday low pricing) (H_2).

In study 2, we randomly assigned participants to financial restrictions (vs. no financial restrictions) condition and sales promotion based on high-low pricing (vs. everyday low pricing) condition. We measured the likelihood to using the sales promotion and participants' decisional conflict.

4.2.1 Participants

We asked MTurk to collect data from four hundred adults in change for 50 cents. Four hundred and ten adults completed the study in exchange for 50 cents. Twenty-six participants failed the attention check. We did all the analyses with the remaining three hundred and eighty-four adults (247 female; M_{age} = 37.56, SD = 16.07). The study used a 2 (financial restrictions: yes, no) × 2 (sales promotion: EDLP, HLP) between-subjects design.

4.2.2 Procedure

Participants were first randomly assigned to either the financial restrictions or the no financial restrictions condition. Following past research (Tully et al., 2015), participants in the financial restrictions condition considered factors that contribute to their financial restrictions by reading the following prompt:

> Everyone has financial constraints in their lives, but the factors that contribute to these constraints tend to vary. What are the factors that require you to be careful with how you spend your money? What limits your monthly discretionary income? Include the aspects of your current situation that most contribute to your financial constraints (e.g., mortgage or rent, family expenses, uncertainty

of future income, health care costs, student loans, lack of income, limited savings, bills that need to be paid, expensiveness of entertainment).

Participants were then asked to write a detailed response (minimum of 250 characters) to the prompt. To provide a similarly demanding task for participants in the no financial restrictions condition, we asked them to list ten facts that they knew to be true (Tully et al., 2015).

Next, participants were randomly assigned to either a sales promotion based on EDLP or an HLP condition. Participants were informed that they would be asked to indicate their preference for the product. All participants saw an ad for a stainless steel 4-burner cabinet-style gas grill and were provided with product information. Participants in the everyday low pricing sales promotion condition were exposed to price information "Everyday Low Price \$150." Participants in the high-low pricing sales promotion condition were exposed to price information "Original Price \$450 Now \$150" (please see Web Appendix for the stimuli used in the study).

Participants then indicated the extent to which "they would engage in the purchase," "can imagine themselves using the promotional offer," and "can imagine that the offer be one of their most likely choices in their next purchase" on three 7-point scales (1 = not at all and 7 = very much). We averaged the scores on these three statements and composed likelihood to use the sales promotion score ($\alpha = 0.95$). Participants then answered the 22-item decisional conflict scale as in study 1 ($\alpha = 0.97$; Sweeney et al., 2000). Participants then provided basic demographic information.

4.2.3 Results

Likelihood to use the sales promotion. An ANOVA on participants' likelihood to using the sales promotion revealed the predicted interaction effect of financial restrictions and sales promotion condition, $F(1, 380) = 5.53$, $p = 0.019$. There was no main effect of either financial restrictions ($p = 0.619$) or sales promotion condition, ($p = 0.207$), please see Fig. 2 in Web Appendix.

Supporting H_2, participants in the financial restrictions condition indicated they were less likely to use the sales promotion when the sales promotion was based on HLP (vs. EDLP), $M_{EDLP} = 4.09$, $SD = 1.80$ vs. $M_{HLP} = 3.41$, $SD = 1.77$, $F(1, 380) = 8.49$, $p = 0.004$. Participants in the no financial restrictions condition did not differ on the extent to which they were likely to use the sales promotion when the sales promotion was based on HLP (vs. EDLP), $M_{EDLP} = 4.88$, $SD = 1.65$ vs. $M_{HLP} = 5.01$, $SD = 1.43$, $F(1, 380) = 0.26$, $p = 0.61$.

Experience of Decisional Conflict. An ANOVA on participants' experience of decisional conflict revealed the predicted interaction effect of financial restrictions and sales promotion condition, $F(1, 380) = 8.02$, $p = 0.005$. Participants in the financial restrictions condition experience more decisional conflict when sales promotion was based on HLP (vs. EDLP), $M_{HLP} = 3.24$, $SD = 1.46$ vs. $M_{EDLP} = 2.76$, $SD = 1.38$, $F(1, 380) = 4.76$, $p = 0.03$. Participants in the no financial restrictions condition indicated that they experienced marginally more decisional conflict when the sales promotion was based on EDLP (vs. HLP), $M_{HLP} = 2.92$, $SD = 1.37$ vs. $M_{EDLP} = 3.28$, $SD = 1.53$, $F(1, 380) = 3.28$, $p = 0.071$.

Mediation by experience of decisional conflict. We next tested the prediction that the less likelihood to use the sales promotion based on HLP (vs. EDLP) by consumers with financial restrictions would be mediated by the experience of decisional conflict. We used the Process Macro Model 7 (Hayes, 2009) for this mediation test.

First, there was a significant interaction effect of the financial restrictions and sales promotion conditions on the experience of decisional conflict, β = -0.83, $p = 0.005$; 95% confidence interval [CI] = [-1.41, -0.25]. Second, there was a significant effect of participants' experience of decisional conflict on likelihood to use the sales promotion, $\beta = 0.14$, $p = 0.023$; 95% confidence interval [CI] = [0.02, 0.25]. Third, there was a significant direct effect of financial restrictions condition on likelihood to use the sales promotion, $\beta = 1.22$, $p < 0.001$; 95% confidence interval [CI] = [0.88, 1.56]. Finally, the conditional indirect effect of financial restrictions condition on likelihood to use the sales promotion was significant when the sales promotion was based on HLP, β = -0.07, 95% confidence interval [CI] = [-0.17, -0.00], but not when the sales promotion was based on EDLP, $\beta = 0.04$, 95% confidence interval [CI] = [-0.01, 0.13].

The results of study 2 extend the previous literature on financial restrictions and high-low pricing (vs. everyday low pricing) sales promotions and support the prediction that consumers who have financial restrictions will respond less favorably to sales promotions that are based on high-low pricing (vs. everyday low pricing) (H_2). Furthermore, the results show that consumers with financial restrictions respond less favorably to sales promotions that are based on high-low pricing (vs. everyday low pricing) because high-low pricing (vs. everyday low pricing) sales promotion cause more decisional conflict for these consumers. In study 3, we tested the effect of financial restrictions on responses to limited (vs. not limited) time sales promotions.

4.3 Study 3 - Limited-time

In study 3, we tested the prediction that consumers who have financial restrictions would respond less favorably to sales promotions that are for a limited (vs. not limited) time period (H_3). In study 3, we randomly assign participants to a financial restrictions (vs. no financial restrictions) and a duration of sales promotion condition. We measured their likelihood to use the sales promotion. Additionally, we measured participants' experience of decisional conflict.

4.3.1 Participants

We asked MTurk to collect data from four hundred adults in change for 50 cents. Four hundred adults completed the study in exchange for 50 cents. Six participants failed the attention check. We did all the analyses with the remaining three hundred and ninety-four adults (223 female; M_{age} = 36.54, $SD = 11.72$). The study used a 2 (financial restrictions: yes, no) × 2 (sales promotion: limited-time, not limited-time) between-subjects design.

4.3.2 Procedure

All participants saw an article from New York Times magazine, including one article and one product advertisement. Participants in the financial restrictions condition saw an article on financial restrictions and participants in the no financial restrictions condition saw an article on computers and artificial intelligence, similar to what has been used in Sarial-Abi and Ulqinaku (2020). Participants in the limited-time sales promotion condition saw an advertisement of a cordless vacuum cleaner that was on sale between 22 and 29 November for the Black Friday Sale, while participants in the not limited-time sales promotion condition saw the same advertisement of a cordless vacuum cleaner that was on sale without indication of any time limit (please see Web Appendix for the stimuli used in the study).

Participants then completed the likelihood to use the sales promotion measures as in study 2 ($\alpha = 0.95$). Participants then answered the 22-item decisional conflict scale as in study 1 ($\alpha = 0.97$) (Sweeney et al., 2000). Participants then provided basic demographic information.

4.3.3 Results

Likelihood to use the sales promotion. An ANOVA on participants' likelihood to use the sales promotion revealed the predicted interaction effect of the financial restrictions and sales promotion conditions, $F(1, 390) = 4.85$, $p = 0.028$. There was no main effect of either the financial restrictions ($p = 0.27$), or sales promotion condition ($p = 0.35$), please see Fig. 3 in Web Appendix.

Supporting H_3, participants in the financial restrictions condition indicated they were less likely to use the sales promotion when the sales promotion was for limited (vs. not limited) time, $M_{\text{LIMITED}} = 2.72$, $SD = 1.56$ vs. $M_{\text{NOTLIMITED}} = 3.73$, $SD = 1.87$, $F(1, 390) = 16.45$, $p < 0.001$. Participants in the no financial restrictions condition did not differ on the extent to which they are likely to use the sales promotion when the sales promotion was for limited (vs. not limited) time, $M_{\text{LIMITED}} = 3.96$, $SD = 1.66$ vs. $M_{\text{NOTLIMITED}} = 4.21$, $SD = 1.72$, $F(1, 390) = 1.07$, $p = 0.301$.

Experience of Decisional Conflict. An ANOVA on participants' experience of decisional conflict revealed the predicted interaction effect of the financial restrictions and duration of sales promotion conditions, $F(1, 390) = 5.18$, $p = 0.023$. Participants in the financial restrictions condition experience more decisional conflict when sales promotion was for limited (vs. not limited) time, $M_{\text{LIMITED}} = 3.84$, $SD = 1.71$ vs. $M_{\text{NOTLIMITED}} = 3.31$, $SD = 1.37$, $F(1, 390) = 6.51$, $p = 0.011$. Participants in the no financial restrictions condition did not differ on the extent to which they experience decisional conflict when the sales promotion was for limited (vs. not limited) time, $M_{\text{LIMITED}} = 2.96$, $SD = 1.31$ vs. $M_{\text{NOTLIMITED}} = 3.09$, $SD = 1.36$, $F(1, 390) = 0.402$, $p = 0.527$.

Mediation by experience of decisional conflict. We next tested the prediction that the lower likelihood to use the sales promotion with limited (vs. not limited) time by consumers with financial restrictions would be mediated by the experience of decisional conflict. We used the Process Macro Model 7 (Hayes, 2009) for this mediation test.

First, there was a significant interaction effect of the financial restrictions and duration of sales promotion conditions on the experience of decisional conflict, β = 0.66, $p = 0.023$; 95% confidence interval [CI] = [0.09, 1.23]. Second, there was a significant effect of participants' experience of decisional conflict on likelihood to use the sales promotion, β = 0.13, $p = 0.031$; 95% confidence interval [CI] = [0.01, 0.25]. Third, there was a significant direct effect of financial restrictions condition on likelihood to use the sales promotion, β = 0.90, $p < 0.001$; 95% confidence interval [CI] = [0.55, 1.23]. Finally, the conditional indirect effect of financial restrictions condition on likelihood to use the sales promotion was significant when the sales promotion was for a limited-time, β = -0.11, 95% confidence interval [CI] = [-0.24, -0.00], but not when the sales promotion was for a not limited-time, β = -0.02, 95% confidence interval [CI] = [-0.10, 0.02].

The results of study 3 extend the previous literature on financial restrictions and limited-time sales promotions and support the prediction that consumers who have financial restrictions would respond less favorably to sales promotions that areas for limited (vs. not limited) period of time (H_3). Furthermore, the results show that consumers with financial restrictions responded less favorably to sales promotions that are for limited (vs. not limited) period of time because limited (vs. not limited) duration sales promotions cause more decisional conflict for these consumers. In study 4, we tested the effect of financial restrictions on responses to buy-one-get-one-free versus buy-one-get-one-X% off sales promotions.

4.4 Study 4 - buy-one-get-one-free versus buy-one-get-one-X% off

In study 4, we tested the prediction that consumers who have financial restrictions would respond more favorably to sales promotions that are buy-one-get-one-free (vs. buy-one-get-one X% off). We randomly assigned participants to a financial restrictions (vs. no financial restrictions) condition and a buy-one-get-one-free (vs. buy-one-get-one X% off) condition. We measured likelihood to use the sales promotion and participants' decisional conflict.

4.4.1 Participants

We asked MTurk to collect data from four hundred adults in change for 50 cents. Four hundred and nine adults completed the study in exchange for 50 cents. Eight participants failed the attention check. We did all the analyses with the remaining four hundred and one adults (261 female; $M_{age} = 37.54$, SD = 12.62). The study used a 2 (financial restrictions: yes, no) × 2 (sales promotion: buy-one-get-one-free vs. buy-one-get-one-X% off) between-subjects design.

4.4.2 Procedure

Participants were first randomly assigned to either the financial restrictions or the no financial restrictions condition as in study 2. Next, participants were randomly assigned to either the buy-one-get-one-free sales promotion or buy-one-get-one-X% off sales promotion condition. All participants saw an advertisement for a pair of sneakers. Participants in the buy-one-get-one-free condition read that with the purchase of any pair of regular-priced shoes, they had the sales promotion of buy-one-get-one free. Participants in the buy-one-get-one-X % off condition read that with the purchase of any pair of regular-priced shoes, they had the sales promotion of buy-one-get-one-30% off (please see Web Appendix for the stimuli used in the study).

Participants then completed the likelihood to use the sales promotion measures as in study 2 ($\alpha = 0.95$). Participants then answered the 22-item decisional conflict scale as in study 1 ($\alpha = 0.97$) (Sweeney et al., 2000). Participants then provided basic demographic information.

4.4.3 Results

Likelihood to use the sales promotion. An ANOVA on participants' likelihood to use the sales promotion revealed the predicted interaction effect of the financial restrictions and sales promotion conditions, $F(1, 397) = 4.03$, $p = 0.045$. There was no main effect of either the financial restrictions ($p = 0.967$), or the sales promotion condition ($p = 0.282$), please see Fig. 4 in Web Appendix.

Supporting H_4, participants in the financial restrictions condition indicated they were more likely to use the sales promotion when the sales promotion was buy-one-get-one-free (vs. buy-one-get-one-X% off), $M_{BOGO} = 4.69$, $SD = 1.55$ vs. $M_{BOG\%} = 3.62$, $SD = 1.91$, $F(1, 397) = 17.85$, $p < 0.001$. Participants in the no financial restrictions condition did not differ on the extent to which they were likely to use the sales promotion when the sales promotion was buy-one-get-one-free or buy-one-get-one-X% off, $M_{BOGO} = 4.33$, $SD = 1.63$ vs. $M_{BOG\%} = 3.94$, $SD = 1.78$, $F(1, 397) = 2.70$, $p = 0.101$.

Experience of Decisional Conflict. An ANOVA on participants' experience of decisional conflict revealed the predicted interaction effect of the financial restrictions and sales promotion conditions, $F(1, 397) = 5.60$, $p = 0.018$. There was no main effect of either the financial restrictions ($p = 0.357$) or the sales promotion condition ($p = 0.677$).

Participants in the financial restrictions condition indicated they were more likely to experience decisional conflict when the sales promotion was buy-one-get-one-free (vs. buy-one-get-one-X% off), $M_{BOGO} = 3.42$, $SD = 1.60$ vs. $M_{BOG\%} = 2.89$, $SD = 1.34$, $F(1, 397) = 6.23$, $p = 0.013$. Participants in the no financial restrictions condition did not differ on the extent to which they experienced decisional conflict when the sales promotion was buy-one-get-one-free or buy-one-get-one-X% off, $M_{BOGO} = 2.54$, $SD = 1.43$ vs. $M_{BOG\%} = 2.69$, $SD = 1.33$, $F(1, 397) = 0.61$, $p = 0.44$.

Mediation by experience of decisional conflict. We next tested the prediction that the increased likelihood to use the buy-one-get-one-free (vs. buy-one-get-one-X% off) sales promotion by consumers with financial restrictions would be mediated by the experience of decisional conflict. We used the Process Macro Model 7 (Hayes, 2009).

First, there was a significant interaction effect of the financial restrictions and the buy-one-get-one-free (vs. buy-one-get-one-X% off) sales promotion conditions on the experience of decisional conflict, $\beta = -0.68$, $p = 0.02$; 95% [CI] = [-1.24, -0.11]. Second, there was a significant effect of participants' experience of decisional conflict on the likelihood to use the sales promotion, $\beta=0.15$, $p=0.015$; 95% [CI] = [0.03, 0.27]. Finally, the conditional indirect effect of the financial restrictions condition on the likelihood to use the sales promotion was significant when the sales promotion was buy-one-get-one-free, β = -0.13, 95% [CI] = [-0.30, -0.01], but not when the sales promotion was buy-one-get-one-X% off, β = -0.03, 95% [CI] = [-0.11, 0.03].

The results of study 4 extend the previous literature on financial restrictions and buy-one-get-one-free (vs. buy-one-get-one-X% off) sales promotions and support the prediction that consumers who have financial restrictions would respond more favorably when the promotion was buy-one-get-one-free (vs. buy-one-get-one-X% off) (H_4). Furthermore, the results show that consumers with financial restrictions responded more favorably to sales promotions that were buy-one-get-one-free (vs. buy-one-get-one-X% off) because these sales promotion caused more decisional conflict for these consumers.

5 General discussion

Sales promotions are common tools in marketing, used to attract more customers and increase sales. While there are both monetary and non-monetary sales promotions used, many companies still use monetary sales promotions in their marketing strategies. Yet, there is no systematic academic research that investigates what type of customers prefer which types of sales promotions. Addressing this research gap, we examined how consumers with financial restrictions, who would be more vulnerable to attractive offers in the marketplace, prefer different sales promotions. The findings from four experimental studies were robust across different sales promotion contexts.

Consumers with financial restrictions were less likely to use the sales promotion when the sales promotion was high-low pricing (vs. everyday low pricing), and when the sales promotion was for a limited (vs. not limited) period of time. Consumers with financial restrictions were more likelihood to use the sales promotion when the sales promotion was a buy-one-get-one-free (vs. buy-one-get-one-X% off) sales promotion. From a theoretical perspective, consumers' experience of decisional conflict explains their increased or decreased likelihood to use different types of sales promotions. We conclude with a discussion of the paper's theoretical contributions, the managerial implications of the findings, and limitations and opportunities for further research.

5.1 Theoretical contributions

Financial Restrictions. Distinct from past research on financial restrictions, we investigated how consumers with financial restrictions respond to different sales promotions. By demonstrating that consumers with financial restrictions respond differently to sales promotions that offer only price benefit, versus a sales promotion that offers a price benefit plus an additional benefit, the findings of this paper contribute to the literature on financial restrictions. Financial restrictions influence the cognitive functioning of consumers. Financial restrictions impede cognitive functioning (Mani et al., 2013), increase concerns about the lasting utility of their purchases (Tully et al., 2015), changes how people allocate attention by leading them to engage more deeply in some problems while neglecting others (Shah et al., 2012), and increase prioritization (Fernbach et al., 2015) and opportunity cost consideration (Spiller, 2011). Research suggests that a financial restriction creates a challenge by limiting consumer behavior, in which consumers respond to the constraint by shifting their thinking and decision making to reduce the impact of the constraint, resulting in how attuned they become to the constraint (Hamilton et al., 2019). Distinct from past research on financial restrictions, we investigated how consumers with financial restrictions cope with the decisional conflict they experience as a result of receiving an attractive offer in the marketplace. We extend the previous research on financial restrictions by demonstrating conditions under which consumers with financial restrictions purchase more to cope with the decisional conflict they experience as a result of receiving an attractive offer, and conditions under which they purchase less to cope with the decisional conflict they experience as a result of receiving an attractive offer.

Sales promotions. Extant research on sales promotions offers mixed findings about how sales promotions are perceived by consumers. Research that shows positive responses to sales promotions suggests that consumers perceive monetary sales promotions as though one has "gotten a good deal" (Lichtenstein et al., 1990), and demonstrate less "pain of payment" from the transaction when there is a monetary sales promotion, which positively influences enjoyment of consumption, mood, and the propensity to use the sales promotion (Heilman et al., 2002; Knutson et al., 2007). Distinct from past research on sales promotions, this research investigated how consumers who have financial restrictions respond to different types of sales promotions. By showing that consumers with financial restrictions respond less positively to sales promotions that offer only price benefits (e.g., high-low pricing sales promotion and limited-time sales promotion) and respond more positively to sales promotions that offer an additional benefit with a price benefit (e.g., buy-one-get-one-free sales promotions), the findings of this research contribute to the previous literature on sales promotions. Previous research on sales promotions broadly categorizes sales promotions as monetary and non-monetary sales promotions and investigates how consumers respond to these monetary and non-monetary sales promotions (Chandon et al., 2000; Kwok & Uncles, 2005). To the best of our knowledge, this is the first research that systematically distinguishes between sales promotions that provide only price benefits, and sales promotions that provide additional benefits along with price benefits. By demonstrating how consumers with financial restrictions respond differently to these different sales promotions, this research contributes to the extant literature on sales promotions.

Research on sales promotions is limited to demonstrating the psychological consequences of sales promotions for consumers. While research shows that sales promotions may have both positive and negative consequences for companies in terms of quality and image perceptions (Gilbert & Jackaria, 2002; Irmak et al., 2005; Kalwani & Yim, 1992; Mela et al., 1997; Montaner & Pina, 2008), research is mostly limited to show how sales promotions psychologically influence consumers. There are a few exceptions that demonstrate sales promotions reduce the "pain of payment" and the attention of consumers (Wathieu & Bertini, 2007) and make them more promotion-oriented (Fan et al., 2019). By demonstrating conditions under which consumers with financial restrictions may experience more or less decisional conflict with different types of sales promotions, the findings of this research contribute to the extant literature on sales promotions.

5.2 Implications

With our findings, we provide insights and actionable implications to marketing practitioners and financially restricted consumers. Initially, we suggest that consumers with financial restrictions experience more decisional conflict when there is a sales promotion on a product. While companies use sales promotions to increase their sales primarily, it would be unrealistic to suggest to companies to reduce their sales promotions activities for the general well-being of consumers with financial restrictions. However, as the findings of this research show, consumers who have financial restrictions, (who are already in a worse situation than consumers who have no financial restrictions in, terms of their general well-being) experience increased levels of decisional conflict with the sales promotions. In order to help these consumers with financial restrictions and at the same time increase their sales, companies can strategically select the sales promotion activities that are targeted towards consumers with financial restrictions. Specifically, the results of this research show that offering sales promotions that have both price and an additional benefit would increase both the sales of the company and potentially make consumers with financial restrictions better off by helping them deal with their decisional conflict.

Second, these findings identify conditions where financially restricted consumers will better cope with the decisional conflict they experience as a result of getting attractive offers in the marketplace in the form of sales promotions. These findings from this research provide a way that companies can take action to generate an outcome, in which consumers with financial restrictions can also find a way to cope with the decisional conflict they experience as a result of getting an attractive offer. One is to provide an additional product, as in the buy-one-get-one-free sales promotions. Rather than offering consumers with financial restrictions sales promotions that are buy-one-get-one-X% off, the results of this paper show that offering an additional product will help consumers with financial restrictions to deal better with their decisional conflict.

5.3 Limitations and further research

Our research has some limitations that offer opportunities for further work. First, consistent with our research question and past research (Hamilton et al., 2019), examining how subjective perceptions of feeling financially restricted influence the way consumers respond to different sales promotions is reasonable. However, to understand whether our effects also hold with populations that experience severe financial restrictions, there needs to be access to consumers who are poor in an absolute sense. Hence, future research can investigate whether there are any similarities or differences in responses to sales promotions by people who are poor in absolute terms, compared to people who are affluent and experience financial restrictions in the laboratory or in an online context, as in our paper.

Second, while we have also demonstrated how financial restrictions interact with limited-time sales promotions, we did not specifically investigate the responses of consumers with limited-time to different sales promotions. Future research that examines how other scarcity situations, such as time, influence the way consumers respond to different sales promotions will be beneficial.

Third, while our findings provide insight into how financially restricted consumers in the U.S. respond to different types of sales promotions, caution should be exercised in generalizing these results internationally. We cannot exclude potential differences across countries. These variations could be due to pricing regulations that can differ from one country to another, changing the perceptions of consumers to promotion strategies also. We encourage future research to look into potential cultural differences in consumer responses to marketing promotional activities, especially when there are financial struggles.

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s43039-025-00112-2.

Funding We declare no funding.

Declarations

Conflict of interests We declare no conflict of interest.

References

Adegeest, D. Data Shows Retailers Are Discounting Early to Clear 2020 Stock. FashionUnited., & FashionUnited (2021). Retrieved from: https://fashionunited.uk/news/retail/data-shows-retailers-are-discounting-early-to-clear-2020-stock/2020110651812

Alba, J. W., Mela, C. F., Shimp, T. A., & Urbany, J. E. (1999). The effect of discount frequency and depth on consumer price judgments. *Journal of Consumer Research*, *26*(2), 99–114.

Alvarez, B. A., & Casielles, R. V. (2005). Consumer evaluations of sales promotion: The effect on brand choice. *European Journal of Marketing*, *39*(1–2), 54–70.

Armitage, C. J., & Arden, M. A. (2007). Felt and potential ambivalence across the stages of change. *Journal of Health Psychology*, *12*(1), 149–158.

Aronson, E. (1968). Dissonance theory: Progress and problems. *Theories of cognitive consistency: A sourcebook*, 5–27.

Ashworth, L., Darke, P. R., & Schaller, M. (2005). No one wants to look cheap: Trade-offs between social disincentives and the economic and psychological incentives to redeem coupons. *Journal of Consumer Psychology*, *15*(4), 295–306.

Aydinli, A., Bertini, M., & Lambrecht, A. (2014). Price promotion for emotional impact. *Journal of Marketing*, *78*(4), 80–96.

Berlyne, D. E. (1960). Conflict, arousal, and curiosity.
Bettman, J. R., Johnson, E. J., Luce, M. F., & Payne, J. W. (1993). Correlation, conflict, and choice. *Journal of Experimental Psychology: Learning Memory and Cognition*, *19*(4), 931–951.
Blattberg, R. C., & Neslin, S. A. (1989). Sales promotion: The long and the short of it. *Marketing Letters*, *1*, 81–97.
Blattberg, R. C., Eppen, G. D., & Lieberman, J. (1981). A theoretical and empirical evaluation of price deals for consumer nondurables. *Journal of Marketing*, *45*(1), 116–129.
Buil, I., De Chernatony, L., & Martínez, E. (2013). Examining the role of advertising and sales promotions in brand equity creation. *Journal of Business Research*, *66*(1), 115–122.
Cannon, C., Goldsmith, K., & Roux, C. (2019). A self-regulatory model of resource scarcity. *Journal of Consumer Psychology*, *29*(1), 104–127.
Chandon, P., Wansink, B., & Laurent, G. (2000). A benefit congruency framework of sales promotion effectiveness. *Journal of Marketing*, *64*(4), 65–81.
Chandran, S., & Morwitz, V. G. (2006). The price of free-dom: Consumer sensitivity to promotions with negative contextual influences. *Journal of Consumer Research*, *33*(3), 384–392.
Cole, S. A., Thompson, J., & Tufano, P. (2008). Where does it go? Spending by the financially constrained. *Spending by the Financially Constrained (April 11, 2008). Harvard Business School Finance Working Paper*, (08–083).
Darke, P. R., & Chung, C. M. (2005). Effects of pricing and promotion on consumer perceptions: It depends on how you frame It. *Journal of Retailing*, *81*(1), 35–47.
Darke, P. R., & Dahl, D. W. (2003). Fairness and discounts: The subjective value of a bargain. *Journal of Consumer Psychology*, *13*(3), 328–338.
Davis, S., Inman, J. J., & McAlister, L. (1992). Promotion has a negative effect on brand evaluations—or does it? Additional disconfirming evidence. *Journal of Marketing Research*, *29*(1), 143–148.
del Olivares, R., Wittkowski, M. J., Aspara, K., Falk, J., T., & Mattila, P. (2018). Relational price discounts: Consumers' metacognitions and nonlinear effects of initial discounts on customer retention. *Journal of Marketing*, *82*(1), 115–131.
Della Bitta, A. J., Monroe, K. B., & McGinnis, J. M. (1981). Consumer perceptions of comparative price advertisements. *Journal of Marketing Research*, *18*(4), 416–427.
DelVecchio, D., Krishnan, H. S., & Smith, D. C. (2007). Cents or percent? The effects of promotion framing on price expectations and choice. *Journal of Marketing*, *71*(3), 158–170.
Diamond, W. D., & Campbell, L. (1989). The framing of sales promotions: Effects on reference price change. *ACR North American Advances*, *16*.
Dodson, J. A., Tybout, A. M., & Sternthal, B. (1978). Impact of deals and deal Retraction on brand switching. *Journal of Marketing Research*, *15*(1), 72–81.
Ehrenberg, A. S., Hammond, K., & Goodhart, G. J. (1994). The after-effects of price-related consumer promotions. *Journal of Advertising Research*, *34*(4), 11–22.
Fan, L., Li, X., & Jiang, Y. (2019). Room for opportunity: Resource scarcity increases attractiveness of range marketing offers. *Journal of Consumer Research*, *46*(1), 82–98.
Fernbach, P. M., Kan, C., & LynchJr., J. G. (2015). Squeezed: Coping with constraint through efficiency and prioritization. *Journal of Consumer Research*, *41*(5), 1204–1227.
Festinger, L. (1962). *A theory of cognitive dissonance* (Vol. 2). Stanford University Press.
Forum, L. S. A. (2016). L'evolution des techniques promotionnelles a l'heure de la guerre des promotions, *Nielsen*, retrieved from http://www.luckycart.com/promotions-in-europe-the-key-figures/
Gedenk, K., & Neslin, S. A. (1999). The role of retail promotion in determining future brand loyalty: Its effect on purchase event feedback. *Journal of Retailing*, *75*(4), 433–459.
Gilbert, D. C., & Jackaria, N. (2002). The efficacy of sales promotions in UK supermarkets: A consumer view. *International Journal of Retail & Distribution Management*, *30*(6), 315–322.
Griskevicius, V., Tybur, J. M., Gangestad, S. W., Perea, E. F., Shapiro, J. R., & Kenrick, D. T. (2009). Aggress to Impress: Hostility as an evolved context-dependent strategy. *Journal of Personality and Social Psychology*, *96*(5), 980–994.
Gupta, S. (1988). Impact of sales promotions on when, what, and how much to buy. *Journal of Marketing Research*, *25*(4), 342–355.
Gurumurthy, K., & Little, J. D. (1987). A pricing model based on perception theories and its testing on scanner panel data. In *Sloan School of Management, MIT Amsterdam Working Paper*.
Hamilton, R., Thompson, D., Bone, S., Chaplin, L. N., Griskevicius, V., Goldsmith, K., & Zhu, M. (2019). The effects of scarcity on consumer decision journeys. *Journal of the Academy of Marketing Science*, *47*(3), 532–550.

Harmon-Jones, E. (1999). *Toward an Understanding of the motivation underlying dissonance effects*. Is the production of aversive consequences necessary?.

Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, *76*(4), 408–420.

Hayes, A. F., & Preacher, K. J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, *67*(3), 451–470.

Heilman, C. M., Nakamoto, K., & Rao, A. G. (2002). Pleasant surprises: Consumer response to unexpected in-store coupons. *Journal of Marketing Research*, *39*(2), 242–252.

Hoch, S. J., Dreze, X., & Purk, M. E. (1994). EDLP, Hi-Lo, and margin arithmetic. *Journal of Marketing*, *58*(4), 16–27.

Hunt, S. D., & Morgan, R. M. (1994). Relationship marketing in the era of network competition. *Marketing Management*, *3*(1), 18.

Inman, J. J., McAlister, L., & Hoyer, W. D. (1990). Promotion signal: Proxy for a price cut? *Journal of Consumer Research*, *17*(1), 74–81.

Inman, J. J., Peter, A. C., & Raghubir, P. (1997). Framing the deal: The role of restrictions in accentuating deal value. *Journal of Consumer Research*, *24*(1), 68–79.

Irmak, C., Block, L. G., & Fitzsimons, G. J. (2005). The placebo effect in marketing: Sometimes you just have to want it to work. *Journal of Marketing Research*, *42*(4), 406–409.

Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of Personality and Social Psychology*, *79*(6), 995–1006.

Janis, I. L., & Mann, L. (1977). Emergency decision making: A theoretical analysis of responses to disaster warnings. *Journal of Human Stress*, *3*(2), 35–48.

Jones, E. E., & Johnson, C. A. (1973). Delay of consequences and the riskiness of decisions 1. *Journal of Personality*, *41*(4), 613–637.

Kalwani, M. U., & Yim, C. K. (1992). Consumer price and promotion expectations: An experimental study. *Journal of Marketing Research*, *29*(1), 90–100.

Kalwani, M. U., Yim, C. K., Rinne, H. J., & Sugita, Y. (1990). A price expectations model of customer brand choice. *Journal of Marketing Research*, *27*(3), 251–262.

Kamakura, W. A., & Russell, G. J. (1989). A probabilistic choice model for market segmentation and elasticity structure. *Journal of Marketing Research*, *26*(4), 379–390.

Karlsson, N., Gärling, T., Dellgran, P., & Klingander, B. (2005). Social comparison and consumer behavior: When feeling richer or poorer than others is more important than being So[1]. *Journal of Applied Social Psychology*, *35*(6), 1206–1222.

Kleiman, T., & Hassin, R. R. (2013). When conflicts are good: Nonconscious goal conflicts reduce confirmatory thinking. *Journal of Personality and Social Psychology*, *105*(3), 374–387.

Knutson, B., Rick, S., Wimmer, G. E., Prelec, D., & Loewenstein, G. (2007). Neural predictors of purchases. *Neuron*, *53*(1), 147–156.

Krishna, A., Currim, I. S., & Shoemaker, R. W. (1991). Consumer perceptions of promotional activity. *Journal of Marketing*, *55*(2), 4–16.

Krishna, A., Briesch, R., Lehmann, D. R., & Yuan, H. (2002). A meta-analysis of the impact of price presentation on perceived savings. *Journal of Retailing*, *78*(2), 101–118.

Kristofferson, K., McFerran, B., Morales, A. C., & Dahl, D. W. (2017). The dark side of scarcity promotions: How exposure to limited-quantity promotions can induce aggression. *Journal of Consumer Research*, *43*(5), 683–706.

Ku, H. H., Kuo, C. C., & Kuo, T. W. (2012). The effect of scarcity on the purchase intentions of prevention and promotion motivated consumers. *Psychology & Marketing*, *29*(8), 541–548.

Kwok, S., & Uncles, M. (2005). Sales promotion effectiveness: The impact of consumer differences at an ethnic-group level. *Journal of Product and Brand Management*, *14*(3), 170–186.

Laran, J., & Tsiros, M. (2013). An investigation of the effectiveness of uncertainty in marketing promotions involving free gifts. *Journal of Marketing*, *77*(2), 112–123.

Laroche, M., Pons, F., Zgolli, N., Cervellon, M. C., & Kim, C. (2003). A model of consumer response to two retail sales promotion techniques. *Journal of Business Research*, *56*(7), 513–522.

Lichtenstein, D. R., Netemeyer, R. G., & Burton, S. (1990). Distinguishing coupon proneness from value consciousness: An acquisition-transaction utility theory perspective. *Journal of Marketing*, *54*(3), 54–67.

Lichtenstein, D. R., Burton, S., & Netemeyer, R. G. (1997). An examination of deal proneness across sales promotion types: A consumer segmentation perspective. *Journal of Retailing*, *73*(2), 283–297.

Liu, H. H., & Chou, H. Y. (2015). The effects of promotional frames of sales packages on perceived price increases and repurchase intentions. *International Journal of Research in Marketing*, *32*(1), 23–33.

Luce, M. F., Bettman, J. R., & Payne, J. W. (2001). Emotional decisions: Tradeoff difficulty and coping in consumer choice. *Monographs of the Journal of Consumer Research*, (1):1–209.

Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *Science*, *341*(6149), 976–980.

Mann, L., Janis, I. L., & Chaplin, R. (1969). Effects of anticipation of forthcoming information on predecisional processes. *Journal of Personality and Social Psychology*, *11*(1), 10–16.

Mela, C. F., Gupta, S., & Lehmann, D. R. (1997). The long-term impact of promotion and advertising on consumer brand choice. *Journal of Marketing Research*, *34*(2), 248–261.

Miller, N. E. (1944). Experimental studies of conflict.

Mittal, B. (1994). An integrated framework for relating diverse consumer characteristics to supermarket coupon redemption. *Journal of Marketing Research*, *31*(4), 533–544.

Monroe, K. B. (2003). Price and consumers' perceptions of value.

Montaner, T., & Pina, J. M. (2008). The effect of promotion type and benefit congruency on brand image. *Journal of Applied Business Research (JABR)*, *24*(3).

Mulhern, F. J., & Padgett, D. T. (1995). The relationship between retail price promotions and regular price purchases. *Journal of Marketing*, *59*(4), 83–90.

Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much*. Macmillan.

Neslin, S. A., Henderson, C., & Quelch, J. (1985). Consumer promotions and the acceleration of product purchases. *Marketing Science*, *4*(2), 147–165.

Nunes, J. C., & Park, C. W. (2003). Incommensurate resources: Not just more of the same. *Journal of Marketing Research*, *40*(1), 26–38.

Obermiller, C., & Spangenberg, E. R. (1998). Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology*, *7*(2), 159–186.

Ortmeyer, G., Quelch, J. A., & Salmon, W. (1991). Restoring credibility to retail pricing. *MIT Sloan Management Review*, *33*(1), 55.

Owens, D. L., Hardman, M., & Keillor, B. (2001). The differential impact of price-related consumer promotions on loyal versus non-loyal users of the brand: A field study investigation. *Journal of Promotion Management*, *6*(1–2), 113–131.

Paley, A., Tully, S. M., & Sharma, E. (2019). Too constrained to Converse: The effect of financial constraints on word of mouth. *Journal of Consumer Research*, *45*(5), 889–905.

Papatla, P., & Krishnamurthi, L. (1996). Measuring the dynamic effects of promotions on brand choice. *Journal of Marketing Research*, *33*(1), 20–35.

Pauwels, K., Hanssens, D. M., & Siddarth, S. (2002). The Long-Term effects of price promotions on category incidence, brand choice, and purchase quantity. *Journal of Marketing Research*, *39*(4), 421–439.

Raghubir, P., Inman, J. J., & Grande, H. (2004). The three faces of consumer promotions. *California Management Review*, *46*(4), 23–42.

Roux, C., Goldsmith, K., & Bonezzi, A. (2015). On the psychology of scarcity: When reminders of resource scarcity promote selfish (and generous) behavior. *Journal of Consumer Research*, *42*(4), 615–631.

Sarial-Abi, G., & Ulqinaku, A. (2020). Financial constraints influence how consumers evaluate Approach-Framed versus Avoidance-Framed messages. *Journal of Advertising*, *49*(3), 270–291.

Sawyer, A. G., & Dickson, P. R. (1984). Psychological perspectives on consumer response to sales promotion. *Research on sales promotion: Collected papers*, 1–21.

Schneider, L. G., & Currim, I. S. (1991). Consumer purchase behaviors associated with active and passive deal-proneness. *International Journal of Research in Marketing*, *8*(3), 205–222.

Schor, J. B. (1998). *The overspent American: Upscaling, downshifting, and the new consumer*. Basic Books.

Schultz, D. E., & Robinson, W. A. (1982). *Sales promotion management*. NTC Business Books.

Sears, D. O., Lindzey, G., & Aronson, E. (1991). *Social psychology*. Prentice Hall.

Sengupta, J., & Zhou, R. (2007). Understanding impulsive eaters' choice behaviors: The motivational influences of regulatory focus. *Journal of Marketing Research*, *44*(2), 297–308.

Shah, J. Y., & Kruglanski, A. W. (2002). Priming against your will: How accessible alternatives affect goal pursuit. *Journal of Experimental Social Psychology*, *38*(4), 368–383.

Shah, A. K., Mullainathan, S., & Shafir, E. (2012). Some consequences of having too little. *Science*, *338*(6107), 682–685.

Sharma, E., & Alter, A. L. (2012). Financial deprivation prompts consumers to seek scarce goods. *Journal of Consumer Research*, *39*(3), 545–560.

Shimp, T. A. (2010). *Integrated marketing communication in advertising and promotion*. South-Western Cengage Learning Australia.

Shiv, B., Loewenstein, G., Bechara, A., Damasio, H., & Damasio, A. R. (2005). Investment behavior and the negative side of emotion. *Psychological Science*, *16*(6), 435–439.

Simonson, I. (1992). The influence of anticipating regret and responsibility on purchase decisions. *Journal of Consumer Research*, *19*(1), 105–118.

Sinha, I., & Smith, M. F. (2000). Consumers' perceptions of promotional framing of price. *Psychology & Marketing*, *17*(3), 257–275.

Spiller, S. A. (2011). Opportunity cost consideration. *Journal of Consumer Research*, *38*(December), 595–610.

Strang, R. A. (1983, May). Sales promotion research: contributions and issues. In *Unpublished Paper, Presented at the AMA/MSI/PMAA Sales Promotion Workshop, Babson College*.

Sweeney, J. C., Hausknecht, D., & Soutar, G. N. (2000). Cognitive dissonance after purchase: A multidimensional scale. *Psychology & Marketing*, *17*(5), 369–385.

Thaler, R. (1985). Mental accounting and consumer choice. *Marketing Science*, *4*(3), 199–214.

Thaler, R. H., & Johnson, E. J. (1990). Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, *36*(6), 643–660.

Tully, S. M., Hershfield, H. E., & Meyvis, T. (2015). Seeking lasting enjoyment with limited money: Financial constraints increase preference for material goods over experiences. *Journal of Consumer Research*, *42*(1), 59–75.

Tversky, A., & Shafir, E. (1992). Choice under conflict: The dynamics of deferred decision. *Psychological Science*, *3*(6), 358–361.

Urbany, J. E., Bearden, W. O., & Weilbaker, D. C. (1988). The effect of plausible and exaggerated reference prices on consumer perceptions and price search. *Journal of Consumer Research*, *15*(1), 95–110.

Van Harreveld, F., Van der Pligt, J., & de Liver, Y. N. (2009). The agony of ambivalence and ways to resolve it: Introducing the MAID model. *Personality and Social Psychology Review*, *13*(1), 45–61.

Walters, R. G., & Rinne, H. J. (1986). An empirical-investigation into the impact of price promotions on retail store performance. *Journal of Retailing*, *62*(3), 237–266.

Wathieu, L., & Bertini, M. (2007). Price as a stimulus to think: The case for willful overpricing. *Marketing Science*, *26*(1), 118–129.

Westbrook, R. A. (1987). Product/consumption-based affective responses and postpurchase processes. *Journal of Marketing Research*, *24*(3), 258–270.

Yi, Y., & Yoo, J. (2011). The long-term effects of sales promotions on brand attitude across monetary and non-monetary promotions. *Psychology & Marketing*, *28*(9), 879–896.

Zeelenberg, M. (1999). Anticipated regret, expected feedback and behavioral decision making. *Journal of Behavioral Decision Making*, *12*(2), 93–106.