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The effect of loyalty program expiration policy on consumer behavior

Els Breugelmans[1] · **Yuping Liu-Thompkins**[2]

Abstract Although loyalty programs can help divert costs to the future by using delayed rewards, unredeemed program currency can become significant liability for the firm. To alleviate this concern, many programs have introduced a point expiration date or have shortened their expiration time horizon. This issue of point expiration has received scant attention in the literature. Contrary to an intuitive negative effect one would expect from a more stringent expiration policy, our real-life data and lab experiment demonstrated that a finite expiration policy can affect purchases positively but only for consumers who have the flexibility to adapt their behavior to such a policy. We identified usage level and engagement in multi-store shopping as two sources contributing to flexibility. Overall, our findings point to a need to understand one's customer base to design the optimal point expiration policy and program communication.

Keywords Loyalty program design · Point expiration · Consumer flexibility · Usage level · Multi-store shopping · Retailing

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✉ Els Breugelmans
els.breugelmans@kuleuven.be

Yuping Liu-Thompkins
YXXLiu@odu.edu

[1] Faculty of Economics and Business, KU Leuven, Korte Nieuwstraat 33, 2000 Antwerp, Belgium

[2] Customer Analytics and Strategy Collaboratory, Department of Marketing, Strome College of Business, Old Dominion University, 2123 Constant Hall, Norfolk, VA 23529, USA

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1 Introduction

In recent years, loyalty programs (LPs) have blossomed in many industries (Berry 2013; Kang et al. 2015). Through these programs, consumers are rewarded for repeated patronage at the focal firm (Smith and Sparks 2009). Compared with other promotional tools such as coupons, LPs can affect consumer behavior across a longer time horizon, capture otherwise untrackable customer information, and delay promotional costs (Nunes and Drèze 2006; Demoulin and Zidda 2009). Due to these advantages, researchers have listed the understanding of LPs as a key research issue (Grewal and Levy 2009).

One key strength of LPs is their ability to divert current costs to the future through delayed rewards. However, this strategy also introduces uncertainty into future cash flow (Noble et al. 2014). When points do not expire, consumers may reach a reward threshold and a firm can incur reward costs at any time. Consequently, unredeemed program currency represents a liability that is a serious concern for businesses (Bartold 2008). Hilton Hotels, for example, reported $963 million liability associated with its LP in 2013 (Fasig 2014). An industry study concluded that "Managing reward liability and its spiraling costs has become the single largest challenge for the reward industry" (Swift Exchange 2012).

A common approach to alleviating financial liability is to introduce or tighten a program's point expiration policy. For instance, in 2011, Air Miles, a major multi-vendor LP, announced in Canada that accumulated miles need to be used within 5 years or otherwise face expiration (Tencer 2011), and in 2013, a similar announcement was made in the Netherlands (De Telegraaf 2013). As consumers lose program points after a (shorter) pre-determined time under the new policy, irrespective of whether they reached a reward threshold, firms are only financially responsible for the points accumulated *within* the expiration time horizon.

Although imposing a stricter expiration policy may help firms reduce financial risk, current customers' purchase behavior can be influenced positively or negatively. For example, shortening the point expiration time may trigger a stronger lock-in effect as it is more imperative that consumers concentrate their spending in one firm. On the other hand, such a freedom-limiting policy can elicit reactance and discourage consumers from patronizing the store. We propose that the effectiveness of a finite expiration policy depends on the flexibility consumers have in adapting their purchases to fulfill more stringent reward requirements. Using field data from a convenience store as well as data from a lab experiment, we empirically investigate the net effect of LP expiration policy and its boundary conditions.

Our study contributes to research and practice in several ways. First, to date, research on LPs has been largely silent on point expiration. As marketers try to differentiate their LPs and keep financial liability under control, it becomes increasingly important to investigate such critical design components (Breugelmans et al. 2015). Second, we investigate the impact of two managerially relevant sources of flexibility that can help determine when imposing an expiration time may be viable. In doing so, we address the varying impact of LPs across segments, currently an unresolved issue in the literature (Dorotic et al. 2012). Finally, we add to the much-needed research on LP design *changes* (Breugelmans et al. 2015). Most prior LP studies assume that companies need to build a LP from scratch. However, many companies are at a program

improvement stage. Our research can help them better understand when and how to implement LP changes.

2 Point expiration policy effect

2.1 Pros and cons

The idea of imposing an expiration date is not new. The literature on coupon expiration suggests that the effect of having an expiration date is far from straightforward. While some studies discover positive effects of a coupon expiration date (Inman and McAlister 1994; Inman et al. 1997), others find a negative effect (Sinha et al. 1999). LP expiration policy presents an interesting extension to this literature. Unlike the one-shot deals examined previously, a LP requires a consumer's coordinated actions through multiple purchases to receive a reward (Lewis 2004). Imposing (or shortening) an expiration time may therefore have a farther-reaching impact on consumer purchases and ultimately firm outcomes. Below, we discuss the pros and cons of having a finite expiration policy relative to not having one.

When a LP has a no-expiration policy, consumers have unlimited time to earn a reward. Theoretically all consumers can eventually reach the reward threshold, and thus every point earned can translate into reward costs. In contrast, with a finite time horizon, points expire after a pre-specified time period and the account balance is reset at regular intervals, essentially limiting the financial liability associated with these unredeemed points.

Logically, a policy that promotes firm welfare at the cost of consumers is expected to negatively affect consumers' purchases. First, imposing a point expiration time forces consumers to earn enough points within a shorter time frame or risk point forfeiture. This may lead to consumer frustration as the reward threshold may not be perceived as feasible given existing purchase patterns. It may also limit the relevance of the program, a key determinant of LP attractiveness (O'Brien and Jones 1995). Furthermore, a shorter time to earn rewards means that consumers have to concentrate all their shopping with the program firm. Such a freedom-limiting policy can elicit reactance (Noble et al. 2014). The consequence may be lower program participation and/or a more negative attitude toward the program and the offering firm.

Despite these negative implications, there are also reasons to expect a positive impact from a finite expiration policy. The coupon literature has shown that expiration time can serve as a signal of a promotion's value (Inman et al. 1997), and LP literature suggests that a point expiration deadline could create a salient goal to work toward (Cheema and Bagchi 2011). The motivation literature further shows that a moderately challenging task can be more motivating and draw out more effort than an easy task (Atkinson and Feather 1966). Consistent with this belief, recent research finds that when consumers have less ability to influence a situation, they are likely to work harder to regain their sense of control (Cutright and Samper 2014). An expiration time can thus challenge consumers to strive harder by purchasing more from the program firm. A finite expiration policy further presents a barrier to switching because consumers may lose all accumulated points at the program firm (known as the lock-in effect, Sharp and Sharp 1997).

2.2 Flexibility as a moderator

Given the pros and cons of having versus not having a point expiration date, we propose that the flexibility a consumer has in adapting his/her behavior can tip the balance and hence moderate the relative effectiveness of a finite expiration policy. Here we define flexibility as a consumer's range of options in modifying behavior in order to achieve reward goals. This concept of flexibility is related to category expandability in the LP literature, where LPs are found to be more viable in categories with a flexible demand (Kopalle and Neslin 2003). In this research, we examine flexibility as a consumer characteristic. In doing so, we extend Kivetz and Simonson (2003), who argue that perceiving oneself as having an effort advantage over others can cause a consumer to construe a LP as providing them with an idiosyncratic fit and a better value. We propose that the notion of having more flexibility than others can be another source of idiosyncratic fit.

The importance of flexibility can be gleaned from the classic Theory of Planned Behavior, which argues that perceived behavioral control is an important contributor to behavioral intention (Ajzen 1991). Perceived behavioral control is high when someone judges him or herself capable of implementing the actions required in a given situation. A variety of factors can contribute to the perception of control, one being the flexibility in choosing one's own actions (Skinner 1996). A number of previous studies in psychology, marketing, and economics have established a general human preference for flexibility (e.g., Amir 2003; Kahn and Lehmann 1991; Walsh 1995). Having flexibility to choose among alternative actions has been shown to activate the brain neural circuit that is associated with reward processes (Leotti and Delgado 2011), and it is able to enhance individuals' perceived control (e.g., Hui and Bateson 1991; Chia-Chi 2008; Dellaert and Dabholkar 2009; Verme 2009; Deci and Ryan 1987). Following this line of thinking, we argue that when consumers have more flexibility to adapt to the expiration policy, they will perceive themselves as having more control over the situation than others. This could trigger an idiosyncratic fit heuristic and drive consumers to evaluate the program more positively.

In this research, we explore two related sources of flexibility: usage level and multi-store shopping. Usage level refers to the level at which a consumer is buying the program offering company's products or services. Previous LP research shows that light buyers have more room to increase their purchases than heavy buyers (Liu 2007), which translates into light buyers having higher flexibility in adapting their behavior to reach the reward requirements under a finite expiration policy. This sense of flexibility can restore their perceived control (Verme 2009) and counteract the reactance toward a more restrictive policy (Clee and Wicklund 1980). In contrast, heavy buyers face a demand-ceiling effect, and this rigidity in consumption constraint is unlikely to change due to a loyalty program (Uncles et al. 2003). As points are reset to zero regularly under an expiration policy, heavy buyers further lose flexibility in reward redemption due to an inability to stockpile points for a bigger reward as was possible under the no-expiration policy. This decrease in redemption flexibility can significantly reduce the appeal of the loyalty program (O'Brien and Jones 1995). This is true even when consumers may not currently utilize all the options given, if they are uncertain about their future utilization (Walsh 1995). Taken together, we expect the following:

H1 Light buyers at the company will purchase more under a finite expiration policy than under a no-expiration policy, while the opposite will be true for heavy buyers.

Another factor that may affect consumers' experienced flexibility in the presence of an expiration policy change is their extent of multi-store shopping. Consumers who routinely buy from multiple stores can flexibly pull purchases from other stores to meet tougher reward requirements at the focal store. As a result, they may perceive an idiosyncratic fit under a finite expiration policy (Kivetz and Simonson 2003) and react positively to such a policy. Consumers who concentrate their purchases at the focal store, in contrast, have much less room to bring business from elsewhere to satisfy the program reward requirements. This limited ability to switch has been shown to lead to a sense of entrapment and forced commitment, which can lead to negative customer outcomes (Fullerton 2003). Hence, we expect the following:

H2 High multi-store buyers will purchase more under a finite expiration policy than under a no-expiration policy, while the opposite will be true for low multi-store buyers.

To test H1, we first analyze real-life data from a convenience store's LP that changed its expiration policy from unlimited to a 1-month expiration horizon. We then report the results from a lab experiment where we test the influence of multi-store shopping as an additional source of flexibility (H2).

3 Study 1

Study 1 tests the impact of a LP expiration policy *change* using transaction records from a US-based convenience store's LP. The store sells both gasoline and convenience store products. The free LP allows members to accumulate points with their purchases, at 10 points/gallon for fuel and 20 points/dollar for non-fuel items. Points can be redeemed for free products at the store such as beverages, snacks, prepared food, and gas vouchers. Prior to the policy change, consumers had unlimited time to accumulate points. Due to financial liability concerns, the store switched to a monthly program where consumers have 1 month to earn rewards, and point balances are reset to zero (i.e., expire) on the first of every month.[1] Our main dataset contained transaction and reward records of 139 LP members from December 2005 to February 2008. We used a 12-week initialization period to derive consumer-level information and estimate our model using the next 52 weeks before and 52 weeks after the policy change in

[1] The store offered rewards at 500, 2400, 6000, and 10,000 points before the policy change. It left the 500-point threshold unchanged, but dropped the higher thresholds in favor of a lower 1500-point threshold, as the management considered it unrealistic for an average consumer to reach those higher levels under the monthly program. The reward items remained the same for the 500-point threshold, and the point value of the 1500-point reward is similar to the original reward thresholds. We realize that this simultaneous change in reward threshold confounds our analysis, and we will control for it in study 2.

March 2007. We required at least one transaction for the initialization period, two for the pre-change period, and one for the post-change period.[2]

3.1 Model formulation

Descriptive analysis shows that the average weekly spending per consumer increased in the post-policy change period ($16.53) compared with the pre-change period ($15.54). Evidently, we must exercise caution when interpreting these numbers as they do not account for confounding factors. To study the impact of the program's expiration policy change, we model purchase incidence and conditional weekly spending of existing members[3] before and after the policy change using a Tobit II model (see Greene 2003). Consumer i purchases in week t (z_{it}) if the utility of doing so (z_{it}^*) is positive:

$$z_{it} = \begin{cases} 1(\text{Purchase}) & \text{if } z_{it}^* > 0 \\ 0(\text{No purchase}) & \text{otherwise} \end{cases}, \tag{1}$$

where the latent utility of making a purchase is formulated as follows:

$$\begin{aligned} z_{it}^* = {} & \alpha + \delta_1 \Delta LP_t + \delta_2 \Delta LP_t{}^{ST} + \delta_3 UsageLevel_i + \delta_4 \Delta LP_t \times UsageLevel_i + \\ & \delta_5 PtsAway_{it} + \delta_6 Reward_{it} + \Sigma_m \delta_{7m} MarketingMix_{mt} + \Sigma_k \delta_{9k} Control_{k,it} + \varepsilon_{1,it} \end{aligned} \tag{2}$$

Conditional on a purchase (z_{it} = 1), we use a linear regression to model y_{it}, the logarithm of spending (in cents) by consumer i in week t, as shown in Eq. (3). The use of log-transformed spending is in line with prior literature (e.g., van Heerde et al. 2008) and ensures that the distribution of the dependent variable is closer to normal.

$$\begin{aligned} y_{it} = {} & \eta + \beta_1 \Delta LP_t + \beta_2 \Delta LP_t^{ST} + \beta_3 UsageLevel_i + \beta_4 \Delta LP_t \times UsageLevel_i + \\ & \beta_5 PtsAway + \beta_6 Reward_{it} + \Sigma_m \beta_{7m} MarketingMix_{mt} + \Sigma_k \beta_{9k} Control_{k,it} + \varepsilon_{2,it} \end{aligned} \tag{3}$$

The error terms $\varepsilon_{1,it} \sim N(0,1)$ and $\varepsilon_{2,it} \sim N(0,\sigma_2^2)$. Both error terms may be correlated and hence $E[\varepsilon_{1,it}\varepsilon_{2,it}] = \sigma_{1,2}$ (Franses and Paap 2001).

To test the impact of the expiration policy change, we include an LP change dummy variable (ΔLP_t), equal to 1 for all post-change weeks and 0 otherwise. We further include a dummy variable for the first month ($\Delta LP_t{}^{ST}$) to control for a short-term emphasis following the change (e.g., extra advertising attention or a novelty effect).[4]

To capture the effect of different usage levels, we use the consumer's average weekly shopping frequency during the 12-week initialization period ($UsageLevel_i$). Our main interest lies in the interaction between the LP change dummy and usage level. We also include two LP-related variables: $PtsAway_{it}$ captures the point pressure effect where consumers accelerate purchases as they get closer to the reward

[2] We did a robustness check where we relaxed the assumption of people having to make at least one purchase in the post-change period. The substantive results on this larger dataset remained identical.

[3] Our data do not record those purchases that consumers made without the loyalty card.

[4] We discussed with the store management about any internal and/or environmental changes that may have occurred. The management confirmed that the market environment in the store's service region had remained relatively stable. Adding a time trend variable did not improve the results either and therefore was not retained.

threshold, following the goal-gradient hypothesis (Kivetz et al. 2006). It equals the logarithm of the smallest distance between consumer's cumulative points prior to week t and the available reward thresholds. $Reward_{it}$ captures the rewarded behavior effect, whereby customers tend to increase purchases after receiving a reward (Taylor and Neslin 2005). It equals 1 if consumer i received a reward in the previous week and 0 if not.

We further control for marketing activities. Promotion ($Promo_t$) is operationalized as the number of promotions offered each week. For price, we use two separate variables: $FuelPrice_t$ is the average weekly price of regular grade gasoline, which accounted for most of the fuel purchases, and $NonFuelPrice_t$ is the average weekly price of a basket of top 100 in-store items (accounting for 62.5% of non-fuel sales). We also control for lagged spending ($Amt_{i,t-1}$) and seasonality ($Quarter_{kt}$) in both models, and we control for initial average weekly spending ($InitialAmt_i$) in the spending model.[5]

3.2 Estimation results

Table 1 shows the model estimation results. We find expected effects for all control variables. We find no effect of non-fuel price ($\delta_8 = 0.10$, $p = .15$) and a significant negative effect of fuel price ($\delta_7 = -0.08$, $p = .03$) on purchase incidence, not surprising as fuel prices are visible to all passing drivers whereas non-fuel prices remain unknown until consumers step inside the store. For weekly spending, we find a non-significant effect of non-fuel price ($\beta_8 = 0.07$, $p = .33$) and a significant positive effect of fuel price ($\beta_7 = 0.18$, $p < .001$), possibly due to the inflexible demand for fuel. Promotion has a positive impact on spending ($\beta_9 = .08$, $p < .001$) but does not affect incidence ($\delta_9 = -0.02$, $p = .54$). Our results also confirm past findings on point pressure and rewarded behavior: the closer a consumer is from a reward, the more likely s/he is to make a purchase ($\delta_5 = -0.19$, $p < .001$) and to spend more ($\beta_5 = -0.06$, $p < .001$) and having received a reward in the previous week increases both incidence ($\delta_6 = 1.03$, $p < .001$) and spending ($\beta_6 = 0.26$, $p < .001$).

The policy change main effect is significant and positive on incidence ($\delta_1 = 0.27$, $p < .001$) and spending ($\beta_1 = 0.11$, $p = .02$). Existing program members are thus more inclined to make a purchase and spend money in the store after the expiration policy change. The first month dummy also has a significant positive effect on incidence ($\delta_2 = 0.39$, $p < .001$) but not on spending ($\beta_2 = 0.03$, $p = .72$), most likely because additional publicity (e.g., advertising) and novelty may have drawn consumers into the store. More interestingly, we find support for H1 with a significant and negative interaction between usage level and the LP change variable for both incidence ($\delta_4 = -0.17$, $p < .001$) and spending ($\beta_4 = -0.04$, $p = .002$). Following the method proposed by Jaccard et al. (1990), we derived the effect of the policy change at various levels of initial usage. When the consumer's average weekly shopping frequency during the initialization period is low (< 1.3 for incidence and < 1.4 for the spending

[5] We conducted robustness checks using different operationalizations of the promotion and price variables (such as a single average price variable or variables using a weighted measure) and using different operationalizations for usage level. Our substantive results did not change.

Table 1 Study 1 model estimation results

Variable	Purchase incidence	Weekly spending
Intercept	0.074	1.571***
Loyalty program change	0.270***	0.112**
Short-term loyalty program change	0.387***	0.027
Usage level	0.360***	− 0.015
Loyalty program change × usage level	− 0.165***	− 0.044***
Loyalty program pressure (PtsAway)	− 0.186***	− 0.058***
Loyalty program reward (Reward)	1.032***	0.261***
Fuel price	− 0.078**	0.176***
Non-fuel price	0.097	0.073
Promotion	− 0.015	0.081***
Spring	0.204***	0.049
Summer	− 0.002	0.002
Autumn	0.051	0.097**
Initial spending	N/R	0.011***
Lagged spending	0.296***	0.233***
σ_2^2	1.036***	
$\sigma_{1,2}$	0.101	
LL	− 17,170	
AIC	34,402	

N/R not relevant

*$p < .10$; **$p < .05$; ***$p < .01$

model, which accounted for 68% and 73% of our sample respectively), the effect of the policy change is significant and positive. The effect becomes negative and significant for shoppers that have a high initial frequency (> 2 for incidence and > 4 for the spending model).

3.3 Discussion

In this study, we empirically investigated the impact of an expiration policy change (from unlimited to monthly expiration) on current LP members' purchases. Our results show that the policy change had a positive effect on purchases for most (about 70%) of the consumers and confirm that the flexibility due to a low usage level could indeed drive consumers to respond more positively to a finite than to a no-expiration policy. We do find that a small majority of very high usage level consumers reacts in a negative way, most likely because they have had stronger reactance to the new more restrictive policy. This is in line with prior research on consumer-company relationships (e.g., Bhattacharya and Sen 2003) that shows very loyal and committed consumers to be more demanding and more likely to react more strongly and more permanently when a company makes decisions (under its control) that have negative repercussion for the consumers involved.

4 Study 2

The objective of study 2 is fourfold: (i) to explicitly investigate the moderating effect of multi-store shopping, which could be another contributor to flexibility (H2), (ii) to manipulate expiration policy between subjects to rule out the possibility that some time trend or environmental changes may have contributed to our study 1 findings, (iii) to isolate the effect of expiration policy by keeping the reward threshold structure the same, and (iv) to generalize findings by investigating another sector.

4.1 Study design and procedures

We used a computer-simulated experiment that enables us to manipulate the variables of interest while controlling for extraneous factors. Undergraduate students from a large US public university participated in the study for course credit. Previous research has shown that simulated shopping in one-sitting can replicate consumers' regular decision heuristics and provide valid insights, especially when the purchase decision is based on cues that can be replicated in the experiment as is the case here (Burke et al. 1992; Massara et al. 2014). Following previous LP research (Kivetz et al. 2006; Noble et al. 2014), we used a coffee shop as the context because of its relevance to our sample and the prevalence of LPs in this sector (Helgeson 2014). Participants first reported their typical spending at coffee shops[6] and, to measure the extent of multi-store shopping, the number of coffee shops they visited during the previous 30 days. They were then randomly assigned to one of two conditions: a finite expiration versus a no-expiration policy, and read a description of the LP. In both conditions, the reward structure was the same: members earn a $3 voucher toward purchases for every $40 they spend. The reward structure was chosen based on a pre-test of students' typical spending, and the reward ratio was fashioned after similar programs in the university's vicinity. In the no-expiration condition, participants read that the program currency does not expire, whereas participants in the finite expiration condition read that the program currency expires at the end of every month.

Participants were shown a menu resembling a typical coffee shop's offerings, which was pre-tested to ensure its realism. They made four sequential sets of choices representing the 4 weeks of the month, indicating each week their likelihood of visiting the shop on an 11-point scale and what quantities of each menu item they would buy. To increase realism, participants were not obliged to buy anything in a given week, and they could choose from not buying at all to buying one or more of the same items. After all choice tasks, participants were asked what the expiration policy was and their age and gender.[7]

4.2 Data analysis and results

The final sample consisted of 179 participants (mean age = 24.38; 56.42% females), with 4 weekly purchases each and thus 716 total weekly observations.

[6] This measure focuses on the *total* spending in the category in a typical week (all coffee shops combined) and is not to be confused with the measure that we used in study 1 (usage level at the *program offering firm*).
[7] As controlling for age and gender does not change results, we do not consider these further.

The dependent variable of our analysis is expected weekly spending, calculated as a consumer's weekly spending across all items multiplied by the likelihood to visit the coffee shop that week. We regressed this dependent variable on an expiration policy dummy (1 for the finite policy, 0 for the no-expiration policy), multi-store shopping, and their interaction. We also controlled for each participant's typical category spending and his/her log-transformed reward distance at the beginning of each week to capture the point pressure effect. Table 2 shows the descriptive statistics of all variables. Together, these variables accounted for 18.38% of the variance.

The effects of the control variables were in the expected direction. Users who typically spend more in the category had higher expected weekly spending ($\beta = 0.21$, $p < .001$), and the log-transformed distance had a significant negative effect, pointing to a point pressure effect ($\beta = -1.71$, $p < .001$). Neither the main effect of policy ($\beta = 0.44$, $p = .36$) nor the main effect of multi-store shopping ($\beta = -0.09$, $p = .29$) was significant, but there was a significant positive interaction between policy and multi-store shopping ($\beta = 0.32$, $p = .014$). To interpret the interaction, we followed the same method from Jaccard et al. (1990) as in study 1. The results show that when consumers visited 2.6 or more coffee shops (46% of the sample), the finite expiration policy led to significantly higher expected weekly spending than the no-expiration policy. For the rest, including strictly single-store shoppers (20% of the sample), the expiration policy did not have a significant effect on expected spending. Overall, H2 is partially supported.

To better understand when the increase in spending was realized, we checked whether consumers spent more as the end of the month approached. To do so, we looked at the difference between week 4's expected spending compared with the average expected weekly spending during the previous 3 weeks, as a function of their log-transformed reward distance at the beginning of week 4. The results suggest that people experience the strongest "sprint" when they are moderately close to reaching the reward threshold. We did not observe this sprint for consumers that are reasonable close such that a small purchase could have made it to the reward threshold or for consumers that are still far from the reward threshold at the start of week 4 as they may have given up hope that they will reach the threshold in time.

Table 2 Study 2 descriptive statistics

	Min	Max	Mean	STD	Correlations			
					Expiration policy	PtsAway	Category spending	Degree of multi-store shopping
Weekly spending	0	43.1	7.6	7.15	.05	− 0.35	0.32	0.05
Expiration policy	54.59% finite expiration					− 0.04	0.03	− 0.06
PtsAway	0	3.7	2.9	1.16			− 0.23	− 0.03
Typical category spending	1.6	60.0	11.5	8.62				.08
Degree of multi-store shopping	0	31.0	3.3	3.85				

4.3 Discussion

Study 2 demonstrates how consumers' multi-store shopping plays a critical role in the effectiveness of a LP's expiration policy. Consumers visiting several stores bought significantly more under the finite expiration policy over the no-expiration policy, with especially those that are moderately close experiencing an end-of-the-month sprint. Consumers visiting a limited number of stores (including those primarily visiting one), in contrast, were indifferent to the more stringent versus lenient expiration policy.

5 General discussion

In this research, we examined the impact of a finite LP expiration policy often introduced to reduce financial liabilities from unredeemed points. Using transaction records from a convenience store's LP and a lab experiment, we compared consumer responses to a finite expiration policy versus a no-expiration policy. Contrary to an intuitive negative effect one would expect from a more stringent finite expiration policy, both studies demonstrated that a finite expiration policy can affect purchases positively but only for consumers who have the flexibility to adapt their behavior to such a policy. We identified usage level (study 1) and multi-store shopping (study 2) as two sources contributing to flexibility.

5.1 Managerial implications

Overall, our findings are encouraging to LP providers that are concerned with financial liabilities and are considering liability-reducing policy changes. Although a finite expiration policy may be more restrictive than a no-expiration policy, as long as consumers still feel a sense of flexibility in adapting their actions, the more restrictive policy can outperform the less restrictive one and actually motivate consumers to try harder.

This suggests that successfully implementing a liability-reducing finite expiration policy requires an understanding of a firm's customer base. When most customers' demand or purchases are flexible, for instance because they have a low usage level and have not reached a ceiling or because they shop around, introducing or shortening the expiration time may be a viable strategy. When a firm has consumers with varying usage or purchase concentration levels, it must adapt its product and program strategy to consumers (Mimouni-Chaabane and Volle 2010). On the one hand, a company could consider integrating different expiration policies into a tiered program to allow more flexibility for higher-tier heavy buyers. On the other hand, a company with an un-tiered program can adapt its strategies for different consumer groups. For instance, for consumers with limited flexibility, more purchase opportunities can be created through introducing new products or services (e.g., selling packaged ground coffee that can be made at home), stimulating purchases in categories one did not buy in the past (e.g., selling convenience store products to those that only buy gasoline), or rewarding purchases that traditionally occur in other channels (e.g., extra rewards for buying traditional grocery store products from the convenience store). The eventual key is to enhance the perception of flexibility among these consumers. For consumers already

with high flexibility, the focus should be on communicating the feasibility of the reward so that the task does not appear overly daunting, while maintaining these consumers' sense of flexibility advantage.

5.2 Limitations and future research

First, we focused on reward programs offered in low-value, high-frequency industries. Extending this research to high-commitment, high-price, and relationship-focused businesses with more complex programs that include for instance a multi-tier component would be valuable (Lee et al. 2014). Investigating other expiration policy forms (e.g., a reward expiration policy; a flexible/rolling time horizon where points expire according to the date that each point is acquired; or a program where consumers can take actions to extend expiration) and other lengths of expiration are worthwhile topics for future research (see Noble et al. 2014).

Next, we only looked at the reactions of current program members in study 1 and focused on two possible reasons contributing to flexibility. Future research should examine existing member attrition and new member acquisition as well as explore alternative reasons for why people may have varying flexibility (e.g., availability of competitive alternatives in the neighborhood). It would also be worthwhile to explicitly test the link from usage level and multi-store shopping to flexibility as well as the mechanisms underlying flexibility (idiosyncratic fit, motivation) that we have put forward in theory.

Finally, future research should use other measures of multi-store shopping beyond visit behavior (e.g., share of wallet) as well as other behavioral outcome measures beyond hypothetical purchases. Ideally, we want to replicate our studies as field experiments where different expiration policies can be instituted from scratch for a store-level LP among stores in isolated regions from the same company, possibly with a control group where no LP is offered at all. Actual behavior will then be observed and compared across the conditions, and the impact of different types of expiration policies rather than a change in expiration policy will be captured. Many creative opportunities exist to better understand the effects of LP expiration policy, which will prove useful to LP researchers and practitioners alike.

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