



Buying free rewards: the impact of a points-plus-cash promotion on purchase and reward redemption

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Abstract

While many studies have investigated consumer purchase behavior in reward programs, a better understanding of customer redemption behavior is lacking, particularly when promotions affect a core aspect of reward programs—free rewards. In this paper, we examine the impact of a promotion on purchase and reward redemption in a reward program in which consumers can partially cover the cost of a free reward with their money. The literature on reward programs suggests a positive reinforcement caused by reward redemption, whereas the literature on promotion provides different views regarding the existence of a postpromotion dip. Using data from a major retailer's reward program, we verify that such a promotion attracted customers with less transaction activity and shorter tenure. Interestingly, consumers using the promotion increased their preference for hedonic rewards compared to their previously observed behavior. This change in preference persisted after the promotion ended. Overall, the promotion significantly increased the number of redemptions but generated a negative impact on subsequent consumer behavior by decreasing purchase incidence and quantity. Our findings point to a need to understand the trade-off between spending money on buying an otherwise free reward and future regular purchases.

Keywords Loyalty programs · Rewards · Goals · Combined currency · Points-plus-cash

1 Introduction

Reward programs (RPs) have become ubiquitous in the market place. One distinctive feature of these programs is that firms give free rewards to customers as compensation for their transactions. Recently, RPs have introduced the possibility of partially buying

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a “free” reward by allowing customers to combine their points with cash, a strategy known as points-plus-cash (PPC). The PPC strategy is probably one of the most important recent changes to RPs. For instance, in 2015, Choice Privileges, the guest loyalty program for Choice Hotels International, Inc., introduced a PPC feature that enables Choice Privileges members to redeem a reward night by combining their existing Choice Privileges points with cash.¹ Similar strategies have been implemented by other hotel companies, such as Hyatt, Marriott, Radisson, and Ritz-Carlton, and more recently by airlines, including United, American, Qantas, and Delta.

The low redemption activity of customers may be considered one of the reasons for introducing this strategy. Indeed, despite wide participation in RPs, only a small fraction of consumers redeems points for rewards regularly. In the RP we studied, which requires specific nonnegligible points to redeem, 68.8% of the customers never redeemed. Interestingly, Stourm et al. (2015) report that as many as 60% of customers never redeem in an RP that has minimum redemption requirements. Low redemption activity might occur because the customer’s purchasing volume is not high enough to stockpile the necessary points to achieve a reward or because attaining a reward might require great effort (Danaher et al. 2016). These issues may create frustration in customers who hoped to receive rewards frequently but overestimated the ease of obtaining such rewards (Maynard and Dash 2005). Thus, a PPC promotion targeting customers on the cusp of redeeming points may be appealing. From the firm’s perspective, the stock of unredeemed points represents a financial liability with significant economic valuation. For instance, in 2005, this liability exceeded \$700B in the airline industry alone (Economist 2005), and by the end of 2016, it amounted to roughly \$3.9B for Delta Airlines and \$4.5B for Marriott International (Delta Airlines 2016; Marriott 2016). Thus, increasing redemptions may help engage customers in the RP and reduce the implied financial liability.

While most RPs that have introduced this PPC strategy have default options to combine cash and points, in this paper, we study a promotion in which the RP temporarily offers the option to combine cash and points on a wide set of reward alternatives. This promotion may affect the behavior of customers who have never redeemed points before or do not redeem points regularly because by purchasing the extra points, they can reach the threshold needed to redeem for rewards. In addition, customers may experience time pressure to use the PPC promotion, which can induce them to transfer money assigned to other products. While the use of points combined with money has been investigated in lab experiments (Drèze and Nunes 2004), there is no research on the purchase and redemption behavior of customers using such a combination to redeem points for rewards in an RP.

Accordingly, in this paper, we investigate the following research questions: (i) What type of customers use a PPC promotion? (ii) Do customers using this promotion change their redemption behavior? (iii) Does the use of this promotion create any effect on subsequent purchases?

The difficulty of empirically addressing these research questions outside the lab requires an RP that implements this change in policy for a limited time and data that allow us to track behavior before, during, and after the promotion. In our work, we take

¹ <http://www.prnewswire.com/news-releases/choice-privileges-launches-new-reward-option-points-plus-cash-300023551.html>

advantage of the transactional history from a major retailer's RP to answer these research questions. In addition, the research questions are challenging because the use of the PPC promotion is not determined through an experimental manipulation but is based on how consumers respond to this marketing intervention. To address this type of selected response, and following Wang et al. (2016), we use a difference-in-differences modeling technique in addition to group comparisons to isolate the true impact of the PPC promotion.

We found that the PPC promotion attracts customers with shorter tenure and lower purchase and redemption activities than redeemers not using the PPC promotion. Interestingly, these customers increased their preference for hedonic rewards when using the PPC promotion. However, we found that the partial purchase of the "free" reward had a negative impact on subsequent purchase behavior since these customers delayed their next purchase and spent a lesser amount of money.

Our paper contributes to the literature on customer purchase and redemption behavior by examining a PPC promotion in an RP. Additionally, it sheds light on the effect of introducing monetary components to otherwise free rewards in the context of RPs, as suggested by Breugelmans and Liu-Thompkins (2017) and Bijmolt et al. (2011), on the design of RPs. Finally, the paper offers evidence of the existence of a postpromotion dip in the context of RPs.

2 Background and conceptual development

The literature on RPs is extensive; diverse studies have been conducted on programs, rewards, consumers, types, purchases, and redemptions in retail companies, airlines, and credit cards, among other industries (see, e.g., Breugelmans et al. 2015). Despite the large number of studies that have been performed on RPs in general, only a few investigations have focused on programs in which consumers can use combined currencies to buy products. For instance, Drèze and Nunes (2004) investigate how potential consumers evaluate transactions that involve prices issued in multiple currencies. The authors consider only regular purchases rather than reward redemptions, which are also the focus of our research. Similarly, Stourm et al. (2015) use the concept of mental accounts to model consumers' decisions to use points instead of cash to reduce the total cost of a current purchase. The authors demonstrate that this approach is a thoughtful decision driven by cognitive and psychological incentives.

To understand the interplay between the use of the PPC promotion and redemption and purchase behavior, it is important to complement the existing explanations to account for the new motivations and consequences in this context.

Figure 1 outlines the sequence of decision making that guides our research. The solid arrows indicate the typical mechanism in RPs, whereas the dashed arrows indicate the alternative path followed in the case of using the PPC promotion. Then, compared to the scenario without the PPC promotion, customers are able to directly purchase the equivalent points needed to redeem for the reward. Therefore, for those customers without enough points, this PPC promotion requests an additional effort in cash, and the compensation for this effort is a reward that those customers would not be able to obtain otherwise. Thus, the PPC promotion acts as typical compensation in RPs. However, the unique feature of combining points and cash that allows customers to

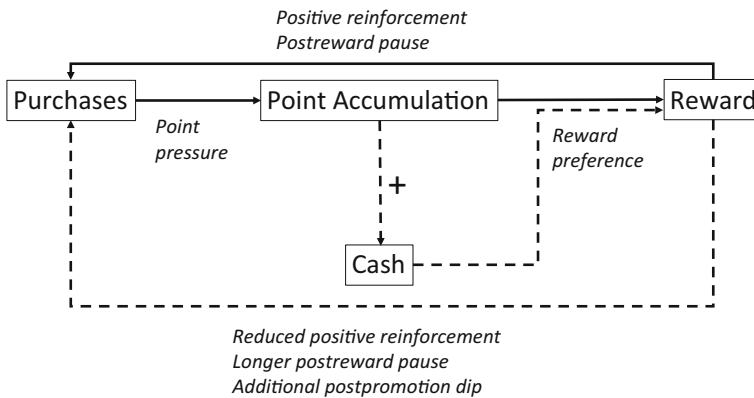


Fig. 1 Conceptual model of the interplay between the use of the PPC promotion and rewarding and purchasing behavior

partially purchase the reward may produce an unwanted consequence. The compensation mechanism of RPs moves away from the “free” reward and closer to typical limited time price promotions that help reduce the price of specific products, which implies a reduced positive reinforcement of the reward. Indeed, this tension between the positive reinforcement of the reward and the dilution of the free compensation is the main motivation of the current research. To study how this PPC promotion may work, it is instructive to analyze two streams of related research: reward redemptions and reward promotions.

Despite the extensive research on RPs, the effectiveness of the reward redemption mechanism is still not well understood. For instance, even though RPs aim to reward their best customers, there is evidence that point pressure (e.g., increase in sales leading to the rewarding point) and rewarded behavior (e.g., positive postredemption behavior) effects are stronger among light users (Lal and Bell 2003; Liu 2007; Taylor and Neslin 2005). These effects have typically been found in the context of retailers with specific, firm-defined redemption thresholds. In contrast, some studies investigating the reward redemption effects when customers choose how much and when to redeem find that the effect is greatest among mid-range customers (Dorotic et al. 2014). In our context, given that this PPC promotion requires some minimum points to be able to complete a redemption with cash, one could expect mid-range consumers to be more prone to use this PPC promotion than other consumers. This is because light consumers may not accumulate enough points to use this promotion, whereas heavy consumers may not need to purchase additional points. Consequently, based on the literature, this promotion may work by reducing the distance to the goal and increasing the probability of using the promotion (point pressure); however, we expect this to increase the time to the next purchase (longer postredemption pause due to additional postpromotion dip). In addition, the literature on redemption behavior has shown that higher required effort shifts consumer preferences from necessity to luxury rewards because higher efforts reduce the guilt often associated with luxuries over necessities (Kivetz and Simonson 2002). In our PPC context, the extra cash needed to redeem points may be perceived as an increase in the effort required to redeem points for a reward; consequently, we expect PPC customers to increase their preference for hedonic rewards.

Previous research on reward promotions has suggested that promotions incentivizing point redemptions should have a positive impact on redemption and postredemption behavior because redemption induces positive reinforcement (Drèze and Nunes 2011; Liu 2007; Wang et al. 2016; Minnema et al. 2017). Thus, we expect the PPC promotion to induce positive redemption and postredemption behavior, especially among consumers who do not redeem points regularly. However, it is important to emphasize that the free reward is a key component of the positive reinforcement, and consequently, this reinforcement may vanish when the rewards are no longer free. Indeed, as suggested by Taylor and Neslin (2005), a reward can increase subsequent purchase behavior if the rewarded customer develops positive feelings toward the firm. The fact that the customer is (partially) purchasing the reward may reduce or even eliminate those positive feelings. This exposure to cash may remind customers that money is a tool to achieve their goals and set them in a market exchange orientation (Lea and Webley 2006). To the best of our knowledge, there is no research on the existence of positive reinforcement when the free element of the reward is removed. In addition to the rewarding aspect of the studied PPC promotion, this strategy can be seen as a typical price discount strategy. Indeed, previous research has shown that reward promotions and price discounts substitute for each other (Wei and Xiao 2015).

Finally, it is important to mention that most typical promotional strategies used in the context of RPs do not generate any cost on the customer side, as they are intended to ease the race toward the rewarding goal or make postreward behavior less painful (see, e.g. Minnema et al. 2017). However, the PPC strategy creates potential trade-offs because consumers need to use their own money to obtain an otherwise free reward, which may affect current or subsequent consumption. In addition, the promotion may create a change in the reference point, which could affect the perception of how easy it is to receive a reward once the promotion is no longer in effect. Thus, we expect the PPC promotion to induce a postpromotion dip in terms of elapsed time until the next purchase or the amount purchased. The postpromotion dip has been investigated in previous research in diverse contexts (Gupta 1988; Neslin and Shoemaker 1989). However, this effect has been difficult to generalize (Blattberg et al. 1995; Neslin and Stone 1996; Hendel and Nevo 2003), and many other researchers have not found such a trough (Grover and Srinivasan 1992; Vilcassim and Chintagunta 1995; Sun 2005). Therefore, it is not evident that customers using the PPC promotion will exhibit a postpromotion dip when they can also be positively reinforced by the reward they redeem.

3 Empirical evidence

3.1 Data and the PPC promotion

To address the research questions, we use transactional data from a major retail company in Latin America. The retailer sells different types of products in a broad set of categories, such as apparel (as in Macy's or Sears) and home improvement (as in Home Depot or Lowe's), and has an RP in which customers earn points for each purchase using the loyalty card issued by the company. Customers accumulate points

and keep them in an “inventory of points” and can exchange a fixed amount of points to redeem for a reward. The earned points have a duration of 1 year that cannot be extended. The RP has a nonlinear structure divided into eight groups (reward levels); each group requires a different number of reward points, and each product within the group requires the same number of points. A customer can choose any product in a certain reward level as long as she has enough reward points in her inventory of points. During the PPC promotion, which was widely advertised on TV and in stores, all the thresholds were modified (reduced), as shown in Table 1. Thus, if 5000 points are typically required to redeem for a reward in level 1, during the promotion, rewards in that level could be redeemed by combining 3000 points with \$6.45 in cash.

The RP offers various types of rewards from a rewards catalog that contains a reduced sample of the products available in the store. These rewards were classified as hedonic or utilitarian (Dhar and Wertenbroch 2000; Kivetz and Simonson 2002; Voss et al. 2003; Okada 2005) by four independent raters. A hedonic product is one that gives pleasure to the customer and has no direct utilitarian purpose (Hirschman and Holbrook 1982). An example of this type of product is perfume because it delivers an intangible benefit to the customer. In contrast, utilitarian products satisfy an attitude that values utility highly and places the achievement of utility above all else. An example of this type of product is a vacuum cleaner because of its specific use, and if it cannot be used for this purpose, then it does not generate any other major interest in the customer.

The dataset covers the period between January 2, 2005 and July 31, 2009; and the PPC promotion took place between October 2, 2008 and October 22, 2008. We have information about earned, expired, and redeemed points for each customer participating in the RP. In addition, we have information on the types of products redeemed and whether the customers used the PPC promotion or their points alone to redeem the reward. Most of the characteristics of this RP are common to many RPs (such as Bloomingdale’s Loyallist Card, Safeway’s Club Card, Air Asia’s BIG, and Radisson’s Club Carlson, to name a few). For this reason, we expect that the results from this study will be applicable to other RPs across diverse industries and hope these analyses may help regular RPs decide whether or not to introduce PPC promotions and what type of customers should be targeted. Indeed, RPs that have introduced

Table 1 Points needed at each level and the equivalence in the PPC system

Reward level	Points required	Points plus cash	
		Points	Cash
1	5000	3000	\$6.45
2	9000	5000	\$11.30
3	12,000	9000	\$16.17
4	24,000	12,000	\$40.44
5	48,000	24,000	\$97.07
6	60,000	48,000	\$161.80
7	90,000	60,000	\$323.61
8	120,000	90,000	\$647.23

the PPC option (e.g., IHG's Rewards Club) offer promotions to their PPC option regularly.² Other RPs have introduced changes to their PPC option since its introduction (e.g., Delta SkyMiles and Marriott Rewards).

3.2 Customer selection

To address the research questions, we first focus on those customers who redeemed during the promotional period and classify those redeemers based on whether or not they used the promotion (PointsPlusCash, PPC, vs OnlyPoints, OP, customers). As a benchmark, we select another group of customers who did not redeem during the promotional period (NoRedeem, NR, customers). We compare the characteristics of these groups before, during, and after the promotion. When comparing their redemption behavior, we report the corresponding results for redeemers within each group.

4 Results

Table 2 summarizes the characteristics and behavior of the selected customers. We divide the variables into three groups describing customers' characteristics and behaviors before, during, and after the promotional period. We contrast these variables for PPC, OP, and NR customers. The variable *Purchase rate* corresponds to the average number of purchases per month. *Earning rate* and *Expiration rate* correspond to the average amount of points that accumulated and expired per month, respectively. *Redemption rate* corresponds to the average number of reward redemptions per year. *Tenure* is the number of years since the customer's first purchase. *Point balance* is the number of points available at the beginning of the promotional period. *Distance to the minimum reward* corresponds to relative distance to the minimum reward (5000 points) considering the point balance at the beginning of the promotional period. *Hedonic redemptions* indicate the percentage of redemptions made by the customer corresponding to hedonic products. Finally, *Time until next purchase after redeeming* corresponds to the average time elapsed between a redemption and the next purchase, whereas *Purchase amount after redeeming* corresponds to the amount spent on the next purchase after redemption.

4.1 What type of customers used the PPC promotion?

By considering the variables computed before the promotional period, we observe in Table 2 that the PPC promotion attracted customers who fell between the OP and NR customers in terms of tenure, purchase rate, earning rate, redemption rate, point balance, and distance to the minimum reward. These PPC customers typically had fewer expired points than OP and NR customers. PPC customers' lower purchase rate compared to that of OP customers implies a higher distance to the minimum reward at the beginning of the promotional period (0.72 vs 0.64, $p < 0.01$). However, this distance is lower than the distance for NR customers (0.72 vs 0.83, $p < 0.01$), which makes the

² <https://www.ihg.com/content/us/en/deals/member-offers/points-cash-discount>
<https://millionmilesecrets.com/news/buy-points-for-cheap-with-ihgs-15-off-points-cash-promotion/>

Table 2 PPC, OP, and NR customers' characteristics and behavior

	Customers		
	PPC	OP	NR
Before promotion			
Purchase rate [purchases/month]	2.12	3.01***	1.48***
Earning rate [points/month]	623.11	1027.69***	454.58***
Expiration rate [points/month]	99.49	103.45**	107.04***
Redemption rate [times/year]	0.62	0.97***	0.42***
Tenure [years]	4.99	5.21***	4.74***
Point balance [points]	1632.13	2939.40***	556.09***
Distance to the minimum reward	0.72	0.64***	0.83***
Hedonic redemptions [%]	5.45%	9.93%**	9.83%**
Redemption amount [points]	7883.45	8642.74**	8002.11
Time until next purchase after redeeming [days]	9.06	7.73*	12.51***
Purchase amount after redeeming [\$]	124.24	154.12**	108.45***
During promotion			
Hedonic redemptions [%]	11.00%	10.18%	x
Redemption amount [points]	6255.73	7892.74***	x
Time until next purchase after redeeming [days]	13.19	9.35***	x
Purchase amount after redeeming [\$]	83.84	124.97***	x
Cash redeemed [US\$]	18.48	x	x
After promotion			
Hedonic redemptions [%]	11.66	12.35	12.78
Redemption amount [points]	7412.94	8412.63***	7965.60**
No. of customers	8181	23,678	1,123,038
% redeeming before promotion	68	85	52
% redeeming during promotion	100	100	0
% redeeming after promotion	22	38	17

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Significance indicates the difference between the group means computed for OP vs PPC, and NR vs PPC

possibility of purchasing reward points more appealing; thus, these customers were more sensitive to the promotion. There is probably heterogeneity among the PPC redeemers: those who never would have reached the threshold and those who would like to have the reward earlier. Although 32% of PPC customers were new redeemers, we cannot disentangle these two subgroups.

4.2 Do customers using this promotion change their redemption behavior?

When the PPC promotion was launched, those who decided to redeem using this promotion could have changed their reward preference by choosing a hedonic product, as the perceived effort required increased because of the points that had to be purchased (Kivetz and Simonson 2002; Arnold and Reynolds 2003). Accordingly, we study the

proportion of hedonic rewards redeemed by OP, PPC, and NR (*Hedonic redemptions* in Table 2). We consider the redemptions made before, during (only for PPC and OP customers), and after the promotion to investigate whether the promotion affected customers' reward preferences. We first conduct a between-subjects analysis investigating whether the customers behaved differently. This comparison allows us to discount exogenous factors affecting both groups that are unrelated to the promotion. Next, we conduct a within-subjects analysis to study the temporal change in the preferences of each group.

Between customers We observe that the groups of customers were different before the promotion ($H_{PPC}^B = 5.45\%$ vs $H_{OP}^B = 9.93\%$; $p < 0.05$ and $H_{PPC}^B = 5.45\%$ vs $H_{NR}^B = 9.83\%$; $p < 0.05$), with OP and NR customers choosing a greater number of hedonic rewards. This difference completely disappeared during the promotional period when PPC customers increased their preference for hedonic rewards, reaching the level of preference observed among OP customers ($H_{PPC}^D = 11.00\%$ vs $H_{OP}^D = 10.18\%$; n.s.). Interestingly, after the promotion, all groups exhibited similar reward preferences ($H_{PPC}^A = 11.66\%$ vs $H_{PPC}^A = 12.35\%$; n.s. and $H_{PPC}^A = 11.66\%$ vs $H_{NR}^A = 12.78\%$; n.s.).

Within customers Table 2 shows that OP customers did not change their preferences during the promotion compared with their behavior before the promotion ($H_{OP}^B = 9.93\%$ vs $H_{OP}^D = 10.18\%$; n.s.), whereas PPC customers substantially increased their preference for hedonic products during this promotional period ($H_{PPC}^B = 5.45\%$ vs $H_{PPC}^D = 11.00\%$; $p < 0.001$). Interestingly, the change in preferences observed for PPC redeemers shows persistence, as the preferences remained at a similar level after the promotion ended ($H_{PPC}^D = 11.00\%$ vs $H_{PPC}^A = 11.66\%$; n.s.), whereas for OP customers, we observe a minor increase in hedonic preferences after the promotion ($H_{OP}^D = 10.18\%$ vs $H_{OP}^A = 12.35\%$; $p < 0.05$).

In addition, we investigate the number of points that each group of customers redeemed for rewards. PPC customers typically redeemed fewer points than OP and NR customers ($P_{PPC}^B = 7883.45$ vs $P_{OP}^B = 8642.74$; $p < 0.05$ and $P_{PPC}^B = 7883.45$ vs $P_{NR}^B = 8002.11$; n.s.). As expected, during the promotion, PPC customers redeemed even fewer points because they also paid \$18.48 in cash on average ($P_{PPC}^D = 6255.73$ vs $P_{OP}^D = 7892.74$; $p < 0.01$). Interestingly, after the promotion, all groups behaved as before the promotion in terms of average number of points redeemed (differences within groups were n.s.).

4.3 Does the use of this promotion have any effect on subsequent purchases?

Given the potential option of borrowing money from regular purchases to buy points, we investigate whether or not using the promotion had any impact on the timing and amount of the next purchase. As described in previous research (e.g., Kivetz et al. 2006), there may be a pause in purchase behavior after redeeming a reward. In our case, such a pause might be even longer for PPC customers because they had to spend money on the redemption during the promotional period, making them more cautious, temporarily, about purchasing. To account

for intrinsic differences among the consumers, we perform a difference-in-differences analysis, computing for each customer the elapsed time between the redemption and the next purchase after the redemption. Next, for each customer, we compute the difference between her average elapsed time before and after the promotional period. Finally, we compare the mean of these differences for PPC and OP customers. As expected, the results were highly significant: the PPC redeemers delayed 4.13 days more than usual on average, whereas OP customers delayed buying an average of only 1.61 days more than usual after redeeming ($\Delta T_{PPC} = 4.13$ vs $\Delta T_{OP} = 1.61$ days, $p < 0.001$). This result suggests a negative consequence of having to use cash to buy the needed points.

Using the PPC promotion implies that consumers must spend money to buy points, leading us to expect that PPC customers would have less money to buy in the immediate future in addition to waiting longer to make the next purchase after their redemption. Consequently, we perform an analysis similar to the previous difference-in-differences analysis to compare the amount spent on the next purchase after a redemption for the periods before and after the promotion. We find that PPC redeemers decreased their purchase amount by $\Delta M_{PPC} = \$40.4$ ($M_{PPC}^B = \$124.24$ vs $M_{PPC}^D = \$83.84$; $p < 0.001$). This 33% decrease may be due to a monetary transfer between periods. OP customers also reduced their purchase amount by $\Delta M_{OP} = \$29.16$ ($M_{OP}^B = 154.12$ vs $M_{OP}^D = \$124.97$; $p < 0.001$), although this decrease corresponds to a substantially lower percentage of 19%. This result can be explained partially by a postreward pause after redeeming (Kivetz et al. 2006; Drèze and Nunes 2011).³ These two decreases are significantly different ($\Delta M_{PPC} = \$40.4$ vs $\Delta M_{OP} = \$29.16$; $p < 0.05$).

5 General discussion

In this research, we investigated the effects of a promotion implemented in a retailer's RP that allowed customers to use existing points and to buy additional points to redeem for rewards. Our analysis showed that the promotion allowing the use of the mixed-currency system was more appealing to mid-range customers with relatively lower levels of activity than redeemers who did not use the promotion. We also found that PPC customers increased their preference for hedonic rewards when they used the promotion. This increase in preferences for hedonic rewards persisted after the promotion ended. Since PPC customers needed to incur an economic expense to buy the reward, we inferred that the elapsed time between redemption and their next purchase would increase compared to their former average elapsed time. Similarly, PPC customers showed a significant decrease in the purchase amount compared to the expected amount. OP customers also showed a decrease in their purchase amount, but it was much smaller. This drop can be explained by postreward pause behavior. Our study provides the first evidence of the implications of introducing monetary components into otherwise free rewards. Future studies can be designed to better understand the underlying mechanism behind the analyzed behaviors.

³ We conduct the same analysis using the purchase amount on the last purchase before the promotion and the next purchase after redeeming, obtaining similar results.

5.1 Managerial implications

Thus, what should RPs do regarding combined currencies? Overall, the mixed results show that a PPC strategy that allows customers to partially cover the price of otherwise (free) rewards needs to be carefully designed. In particular, since this strategy attracts mid-range consumers who transfer money from their regular purchases to obtain a reward, this may cause negative consequences for future purchases. Therefore, it is important for retailers to offer sufficient information about the new redemption system to enable the system to achieve its potential (Zhang and Breugelmans 2012). For instance, companies might focus on the positive aspects and try to reinforce the redemption experience, particularly for first-time redeemers. In addition, companies could help facilitate the next purchase by offering discounts on the next purchase after this type of redemption is used to reduce the postredemption pause.

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References

- Arnold, M. J., & Reynolds, K. E. (2003). Hedonic shopping motivations. *Journal of Retailing*, 79(2), 77–95.
- Bijmolt, T. H. A., Dorotic, M., & Verhoef, P. C. (2011). Loyalty programs: generalizations on their adoption, effectiveness and design. *Foundations and Trends in Marketing*, 5(4), 197–258.
- Blattberg, R. C., Briesch, R., & Fox, E. J. (1995). How promotions work. *Marketing Science*, 14(3_supplement), G122–G132.
- Breugelmans, E., & Liu-Thompkins, Y. (2017). The effect of loyalty program expiration policy on consumer behavior. *Marketing Letters*, 28(4), 537–550.
- Breugelmans, E., Bijmolt, T. H., Zhang, J., Basso, L. J., Dorotic, M., Kopalle, P., et al. (2015). Advancing research on loyalty programs: a future research agenda. *Marketing Letters*, 26(2), 127–139.
- Danaher, P. J., Sajtos, L., & Danaher, T. S. (2016). Does the reward match the effort for loyalty program members? *Journal of Retailing and Consumer Services*, 32, 23–31.
- Delta Airlines (2016). *Delta Airlines 10K form for 2016*. <http://www.annualreports.com/Company/delta-air-lines-inc>. Accessed 20 Feb 2019.
- Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37(February), 60–71.
- Dorotic, M., Verhoef, P. C., Fok, D., & Bijmolt, T. H. (2014). Reward redemption effects in a loyalty program when customers choose how much and when to redeem. *International Journal of Research in Marketing*, 31(4), 339–355.
- Drèze, X., & Nunes, J. C. (2004). Using combined currency prices to lower consumers' perceived cost. *Journal of Marketing Research*, 41(1), 59–72.
- Drèze, X., & Nunes, J. C. (2011). Recurring goals and learning: the impact of successful reward attainment on purchase behavior. *Journal of Marketing Research*, 48(2), 268–281.
- Economist, T. (2005). *Frequent-flyer miles: funny money*. <http://www.economist.com/node/5323615>. Accessed 20 Feb 2019.
- Grover, R., & Srinivasan, V. (1992). Evaluating the multiple effects of retail promotions on brand loyal and brand switching segments. *Journal of Marketing Research*, 29, 76–89.
- Gupta, S. (1988). Impact of sales promotions on when, what, and how much to buy. *Journal of Marketing Research*, 25, 342–355.

- Hendel, I., & Nevo, A. (2003). The post-promotion dip puzzle: what do the data have to say? *Quantitative Marketing and Economics*, 1(4), 409–424.
- Hirschman, E., & Holbrook, M. B. (1982). Hedonic consumption: emerging concepts, methods and propositions. *Journal of Marketing*, 46(3), 92–101.
- Kivetz, R., & Simonson, I. (2002). Earning the right to indulge: effort as a determinant of customer preferences toward frequency program rewards. *Journal of Marketing Research*, 39(2), 155–170.
- Kivetz, R., Urminsky, O., & Zheng, Y. (2006). The goal-gradient hypothesis resurrected: purchase acceleration, illusionary goal progress, and customer retention. *Journal of Marketing Research*, 43(1), 39–58.
- Lal, R., & Bell, D. E. (2003). The impact of frequent shopper programs in grocery retailing. *Quantitative Marketing and Economics*, 1(2), 179–202.
- Lea, S. E., & Webley, P. (2006). Money as tool, money as drug: the biological psychology of a strong incentive. *Behavioral and Brain Sciences*, 29(2), 161–209.
- Liu, Y. (2007). The long-term impact of loyalty programs on consumer purchase behavior and loyalty. *Journal of Marketing*, 71(4), 19–35.
- Marriott (2016). *Marriott International 10K form for 2016*. <http://www.annualreports.com/Company/marriott-international-inc>. Accessed 20 Feb 2019.
- Maynard, M., & Dash, E. (2005). Fliers find that mileage points only go so far. *The New York Times*.
- Minneema, A., Bijmolt, T. H., & Non, M. C. (2017). The impact of instant reward programs and bonus premiums on consumer purchase behavior. *International Journal of Research in Marketing*, 34(1), 194–211.
- Neslin, S. A., & Shoemaker, R. W. (1989). An alternative explanation for lower repeat rates after promotion purchases. *Journal of Marketing Research*, 26(2), 205–213.
- Neslin, S. A., & Stone, L. G. S. (1996). Consumer inventory sensitivity and the post promotion dip. *Marketing Letters*, 7(1), 77–94.
- Okada, E. M. (2005). Justification effects on consumer choice of hedonic and utilitarian goods. *Journal of Marketing Research*, 42(1), 43–53.
- Stourm, V., Bradlow, E. T., & Fader, P. S. (2015). Stockpiling points in linear loyalty programs. *Journal of Marketing Research*, 52(2), 253–267.
- Sun, B. (2005). Promotion effect on endogenous consumption. *Marketing Science*, 24(3), 430–443.
- Taylor, G. A., & Neslin, S. A. (2005). The current and future sales impact of a retail frequency reward program. *Journal of Retailing*, 81(4), 293–305.
- Vilcassim, N. J., & Chintagunta, P. K. (1995). Investigating retailer product category pricing from household scanner panel data. *Journal of Retailing*, 71(2), 103–128.
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003). Measuring the hedonic and utilitarian dimensions of consumer attitude. *Journal of Marketing Research*, 40(August), 310–320.
- Wang, Y., Lewis, M., Cryder, C., & Sprigg, J. (2016). Enduring effects of goal achievement and failure within customer loyalty programs: a large-scale field experiment. *Marketing Science*, 35(4), 565–575.
- Wei, L., & Xiao, J. (2015). Are points like money? An empirical investigation of reward promotion effectiveness for multicategory retailers. *Marketing Letters*, 26(1), 99–114.
- Zhang, J., & Breugelmans, E. (2012). The impact of an item-based loyalty program. *Journal of Marketing Research*, 49(1), 50–65.