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The Preference between Reward Choice and Reward Specificity in Repeated Purchase Incentives

Abstract:

Purpose: This paper seeks to examine individuals' preference between reward choice and reward specificity under different requirements (number of purchases) for rewards. The main goal is thus to contribute to the understanding of how to design effective incentives. More generally our study also adds to the growing body of studies on situations when individuals prefer less choice over more choice.

Methodology: We conducted an empirical field study in a fictive setting whereby students (N=99) rated their preference for three kinds of rewards that differ in terms of specificity and choice; cash, rebate coupon and product in-kind. One-tailed t-tests were performed to test two hypothesis formulated on how number of purchases required for rewards matters for preference of kind of reward. More specifically, we hypothesized that in general customers prefer more choice over less choice but that a certain threshold level in terms of number of purchases required for a reward, specificity becomes more highly valued than choice.

Findings: We found reward choice to be preferred over reward specificity irrespective of the size of the spending requirement. In other words, individuals' rated a preference for cash over rebate coupon over product in-kind as reward irrespective of number of purchases required for rewards. Surprisingly though, we found that the preference for cash over rebate coupon decreased in magnitude while the preference for cash over rebate coupon increased in magnitude as the spending requirement was changed from low to high. Potential explanations to our findings are discussed.

Originality: Individuals preference between reward choice and reward specificity is an aspect of incentive design that has received sparse attention in previous studies. In this regard we draw on goal-setting theory, which previously has been used mainly within a principal-agent context.

Keywords: Reward Choice, Reward Specificity, Goal-Setting, Customer Rewards Programs, Repeated Purchase, Incentives.

1   Introduction

Firms commonly reward customers for repeated purchase. The basic idea is that it is more economical for the firm to keep a customer than to acquire a new one (see Reichheld and Sasser 1990; Ryals and Knox 2001). With advances in information technology firms with many customers have found formal ways to reward customers for repeated purchase (see Kamakura et al. 2005). The so-called customer rewards programs (CRPs) in which customers spend to collect points which in turn can be redeemed towards a reward illustrate this. It is important that CRPs function according to firms' expectations since millions of customers are enrolled in single programs (see Sällberg 2010) and since the programs are costly to initiate (see Skogland and Siguaw 2004; Liu, 2007).

As the number of CRPs has continued to increase during the last two decades (see Berman 2006) academic interest has followed. There is an ongoing research debate on whether firms profit from CRPs or not (see Verhoef, 2003; Lewis 2004; Liu and Yang 2009; Dorotic et al. 2010; Gandomi and Zolfaghari 2011). By effectively designing the CRP a firm may profit from it (see Kivetz 2003; Drezé and Nunes 2008; Melnyk and Van Osselaer 2012). There are a number of design choices to consider such as: including membership levels or not, allowing point collection at partner firms or not and setting spending requirements for rewards.

The reward design of a CRP has been pointed out as particularly important for the firm to consider (see Roehm et al. 2002; Yi and Yeon 2003). Previous studies have been conducted on for instance; whether to offer one's own product or another firm's product as in-kind[1] reward, whether to offer a luxury or a necessity product as in-kind reward and whether to offer a group reward or an individual reward (see Sällberg 2010). Further, it has been found that a customer's reward preference between luxury items and necessity items is contingent on efforts required to reach the reward (see Kivetz and Simonson, 2002; Kivetz, 2003). We here continue studying how the spending requirement matter for reward preference. Hence, in this paper we study how different kinds of rewards create an incentive for repeated purchase under different number of purchases required for rewards.

We distinguish between three kinds of rewards; cash, rebate coupon and product in-kind. We assert that two effects working in opposite direction determine what kind of reward a customer prefers. Those are, the specificity of the reward and how much choice the reward permits. Before turning to these assertions and the empirical field study in more detail we further contextualize our study by reviewing previous studies.

2 Previous studies

In a worker-employer context, it has long been studied how to set goals to make employees effectively perform a task (see Erez and Kanfer 1983; Zaleski 1987; Locke and Latham 2002). Results of such studies indicate that specific and challenging goals create a stronger incentive than general and less challenging goals (Mento et al. 1980). Whether such findings generalize to the CRP context as well remains to be studied.

Bagozzi and Dholakia (1999) address goal-setting in a consumer context and mean that consumers' goals influence their decision making, choice and action. One can expect that the main goal for the customer participating in a CRP is to obtain the reward(s). In line with such an expectation, empirical findings indicate that reward characteristics matter for how consumers respond to CRPs (see Roehm et al. 2002; Yi and Jeon 2003). Also, spending requirements (see Kivetz and Simonson 2002; Kivetz 2003; Kivetz et al. 2006) and point requirements (see Hsee et al. 2003: Van Osselaer et al. 2004) seem to influence consumers' response to CRPs following previous studies. Below we review studies of these influences on reward preference.

2.1 Reward characteristics and reward preference

A firm can offer their own product or another firm's product as reward in a CRP (see Dowling and Uncles 1997). Yi and Jeon (2003) found in this regard that when the firm sells a high-involvement product, offering it as reward creates a stronger purchase incentive for the customer compared to

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[1] Refers to a product for free supplied by the firm offering the CRP such as a flight offered by an airline.

offering another firm's product as reward. In line with expectations, the opposite was found when the firm offers a low-involvement product.

Rewards in a CRP unfold in the future since they require repeated purchase, hence they are delayed. Empirical studies have found that individuals discount delayed rewards vis-à-vis immediate rewards (Murphy et al. 2001; Green et al. 2005). Further, a study by Odum and Rainaud (2003) indicates that product rewards, when delayed, are more steeply discounted than monetary rewards. A finding which suggests that monetary rewards create a stronger repeated purchase incentive than product rewards in CRPs.

Furthermore, a study by Estle et al. (2007) indicated that delayed rewards of high monetary value are discounted less steeply than delayed rewards of low monetary value. For design of rewards in CRPs such a finding suggests that offering rewards of high monetary value requiring many repeated purchases would create a stronger purchase incentive than offering rewards of low monetary value requiring few repeated purchases.

Yet other research suggests that firms' should offer rewards in CRPs that bring a about a positive customer attitude. Hence, Hallberg (2004) suggests that attitudinal loyalty is positively related to behavioral loyalty implying that CRPs should be designed to create attitudinal loyalty. In line with the assertion, results of an experimental study conducted by Roehm et al. (2002) indicate that the extent to which the reward offered in a CRP strengthens a customer's association to the brand matters for post program brand loyalty, that is, once the CRP has expired[2].

Taylor and Neslin (2005) also refer to the importance of attitudinal loyalty. They found that a retailer CRP positively influenced sales due to a *rewarded behavior* mechanism. That is, already received rewards in the CRP make the customer spend relatively more towards future rewards. According to the authors this effect arises either by the customer developing a positive attitude towards the firm or due to behavioral learning implying that rewarded behavior is likely to persist (Blattberg and Neslin 1990). Following such reasoning a CRP should be designed such that few purchases are required for obtaining the first reward.

2.2 Points and reward preference

Customers ought to take into account effort and outcome when making CRP decisions, that is, repeated purchase and reward value. Points, being a medium, ought not to be considered though. Hence, points represent a token which has no value in and of itself and is merely something which can be traded for the desired outcome (Hsee et al. 2003). Nevertheless, studies indicate that points influence customer decision making. Hsee et al. (2003) found that people maximize not only the outcome to effort return but also the medium to effort return. The authors thus found that when the medium was made larger for an inferior reward alternative, people tended to shift their preference to that alternative.

Van Osselaer et al. (2004) found another psychological effect. They studied how distribution of points over a given number of purchases influences individuals' decision making. Assuming that two purchases are required to reach a particular reward a customer ought not to care if he obtains for instance 99 points for the first purchase and 1 point for the second purchase or 50 points for

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[2] Not all CRPs expire once the reward is reached. Further, in some CPRs points expire after a due date while in other CRPs they do not. Hence, firms can design CRPs in many different ways when it comes to points as well.

each purchase. Conducting a field study the authors though found that customers maximize the amount of points they can obtain today despite this being irrelevant for reward value.

2.3 Spending requirement and reward preference

Kivetz and Simonson (2002) studied how the spending requirement for a reward influences preference for kind of reward in a CRP. They found that when spending requirements were *low* (10 car rentals) customers preferred a necessity reward (grocery bill) over a luxury reward (spa treatment) of equal monetary value. However, as the spending requirement was increased to 20 car rentals, the preference shifted. This implies that the number of efforts required seem to be important for what kind of reward that creates the strongest repeated purchase incentive.

In another study Kivetz (2003) investigated how the spending requirement for a reward influences preference between certain rewards of low monetary value and uncertain (probabilistic) rewards of *higher* monetary value. Conducting a study using fictive CRPs the author found that effort compared to no effort enhances a customer's preference for certain rewards of low monetary value. However, the author also found that at a certain threshold value an increase in the spending requirement will no longer enhance the preference for the certain low value monetary reward. Hence, this reward becomes insufficient compensation for effort required (ibid).

Another effect found has to do with the number of purchases remaining to qualify for a reward. That is, temporal proximity to the goal has been found to influence customer efforts made to reach the reward. Kivetz et al. (2006) studied students' purchase behavior with regards to a university café CRP in which the 10th cup of coffee was for free. The authors found that students bought coffee more frequently the closer they were to the free coffee. The average length of time before the next coffee purchase decreased with 20% throughout the CRP. The result of the study thereby indicates that the closer customers are to reach a reward the more effort they are willing to exert. For design of CRPs the results of this study suggests that low value rewards requiring few repeated purchases should be offered rather than high value rewards requiring many repeated purchases.

The link between spending requirement and reward preference does not seem straightforward following previous studies. Hence, whether luxury rewards or necessity rewards are preferred seem to be contingent on spending requirement size. Also, to what extent certain rewards of low monetary value versus uncertain rewards of higher monetary value create a purchase incentive seem to be contingent on spending requirement. We here study how another characteristic of a reward, specificity, influences the purchase incentive created for customers under different spending requirements. In this sense we add to the growing body of studies on how reward characteristics matter for reward preference and more generally thereby also to the studies on how the design of a CRP influences repeated purchase.

2.4 Hypotheses development

According to welfare economics research individuals prefer choice over no choice (see Sen 1988; Pattainak and Xu 1990; Bossert et al. 1994). For instance, Pattainak and Xu (1990), based on three axioms deduced a cardinality-based ordering rule for measuring freedom of choice[3] such that one set of opportunities is ranked higher than another if and only if it has a larger number of members. In other words the rule prescribes that individuals prefer more choice over less choice.

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[3] Refers to the economic alternatives available to individuals.

In line with welfare economics research O'Brien and Jones (1995) suggest that reward choice constitute one element determining the value of a CRP to the customer. Different kinds of rewards permit differently much choice to customers. A cash reward permits more choice than a product in-kind reward such as a free car wash. Hence, cash can be used to buy any product including the in-kind reward. The in-kind reward on the other hand can either be consumed or not.

A rebate coupon which can be used to buy any of the products offered in a particular store, permits more choice than an in-kind reward but less choice than a cash reward of equal value. This assertion holds given the weak assumptions that the store offers more than one product and that the store offers a limited number of products. From a choice point of view, drawing on O'Brien and Jones suggestion and welfare economics research, customers ought to prefer cash over a rebate coupon over a product in-kind as reward in a CRP.

However, when the spending requirement is such that the customer needs to make many purchases to reach the reward we assert that the preference order for kinds of rewards shifts. The reason for this is goal specificity[4]. According to goal-setting theory specific goals result in higher performance compared to general goals (Mone and Shalley 1995; Fried and Slowik 2004). While goal specificity has received quite some attention in the worker-employer context less attention has been given to it in a consumer behavior context (see Bagozzi and Dholakia 1999). In line with goal setting theory, we assert that customers participating in a CRP do not want to make many efforts (purchases) towards a reward which is unspecific (implies low reward specificity). The extreme is to say that a customer avoids making many efforts towards an unknown goal (reward).

In terms of the kinds of rewards we study, a product in-kind is more goal specific than a rebate coupon which in turn is more goal specific than a cash reward of equal monetary value. To illustrate, consider *a $10 ticket to see the movie the lord of the rings* as reward versus a $10 cinema rebate coupon. The movie for free is thus a more clear goal, is characterized by higher reward specificity, since the $10 rebate coupon can be used to buy popcorn, watch a movie or perhaps buy a movie magazine. Cash is thus the least clear goal, has lowest reward specificity, since it can be used to buy any product.

We thus assert that there are two kinds of effects which work in opposite direction, reward specificity and reward choice. In general, more choice is preferred over less choice. However, at a certain threshold level in terms of effort required, reward specificity becomes more highly valued than choice. This leads to the following two hypotheses:

H$_1$: When the spending requirement for a reward in a CRP is low, the customer prefers cash over a rebate coupon over a specific product as reward.

H$_2$: When the spending requirement for a reward in a CRP is high, the customer prefers a specific product over a rebate coupon over cash as reward

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[4] General or unspecific goals imply low goal specificity while specific goals imply high goal specificity.

3 Study Design

3.1 Subjects: selection and incentives

Our sample consists of students (N=99) selected from undergraduate courses we had access to at Blekinge Institute of Technology, Sweden. We selected students because a) they constitute a coherent group which is to prefer from an external validity point of view and b) they are familiar with the task to be performed. We randomly assigned each subject to either of four conditions; one control condition and three reward conditions with *low*, *intermediate* and *high* spending requirement for rewards.

Empirical studies indicate that monetary incentives reduce performance variability in experiments (Siegel and Goldstein 1959). In the current study we provided no such incentives. It has been pointed out that many times participants do well even with fictive rewards (Davis and Holt 1993). Further, we argue that by paying subjects upfront we would risk getting subjects who only care about the monetary incentive. Students were informed they would be given a seminar on experimental design and feedback on the results of the study if they participated.

3.2 Instructions and tasks

Subjects were informed they were to decide where to buy groceries next time, choosing between two fictive grocery stores. By choosing this task we aimed for achieving correspondence between the fictive situation and the real life situation since students make grocery purchases on a regular basis[5].

Subjects in the control condition were instructed they were to rate, on a likert scale 1-7, how likely they were to choose grocery store *Cart* versus grocery store *Basket*. Subjects were informed that the two stores were identical in all respects. Each reward condition instruction was formulated such that grocery store *Basket* offered one kind of reward and grocery store *Cart* another kind of reward for repeated purchase. Subjects were informed that in all other respects the two grocery stores were identical. In other words, subjects in reward conditions were to rate, on a likert scale 1-7, which reward they prefer. We further illustrate the three reward conditions in table I below:

Table 1: The three reward conditions studied

Reward condition	Purchases required	Spending value (S)	Reward value(R)
I	2	SEK1000	SEK100
II	5	SEK2500	SEK250
III	10	SEK5000	SEK500

The table shows that the spending value for a reward (S) increases proportionately with the monetary unit reward value (R) between conditions. In each condition, subjects were instructed that,

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[5] In some countries students pay for dorm including meals. However, in other countries such as Sweden meals are not included in dorm fees. Hence, students typically buy groceries on a regular basis.

on average, they buy groceries for SEK500[6] once a week, hence the purchase requirements (spending requirements) shown in the table. In each condition subjects made pair wise ratings of their preference for; cash versus rebate coupon, cash versus product in-kind and rebate coupon versus product in-kind as reward. In each of the three conditions, the only difference between the two grocery stores was the kind of reward offered.

Each subject in a reward condition was exposed to all pair wise combinations of cash, rebate coupon and product in-kind as reward. The main rationale for a pair wise rating design over a design with ratings between all three kinds of rewards simultaneously is that the task is kept simple. Hence, we this way tried to reduce the risk of confusion regarding the task to be performed.

3.3 Procedural considerations

In order to avoid precedence effects we let *Cart* and *Basket* be presented first equally often to subjects in each condition (see Neale and Liebert 1986). Further, we used counterbalancing to mitigate fatigue effects and order effects in reward conditions. Hence, subjects in a reward condition were exposed to each pair of reward alternatives in different order such that in total each pairwise rating was made first and last equally often.

The empirical study was conducted in a classroom by which subjects filled out their answers using papers and pen. Subjects were spread out in the classroom to make sure that ratings were made individually. This kind of study design has since long been used in research on consumer choice (see Oshikawa 1970).

3.4 Testing and Operationalization

We reject the null hypothesis for H_1, stating that customers prefer cash over a rebate coupon over a product in kind as reward when the spending requirement is low, if the two following criteria are met. First, the mean value likert scale rating should indicate the preference order: cash *P* rebate coupon *P* product in kind. Secondly, the difference between the mean preference rating values in reward condition 1 and the control condition should be significant on the 5% level according to the one-tailed t-test performed. Hence, we tested how rewards versus no rewards influence store choice. We let two purchases capture *low spending requirement* for H_1 due to that it provides high content validity since it is the lowest repeated purchase requirement possible.

We reject the null hypothesis for H_2, stating that customers prefer a product in kind over a rebate coupon over cash as reward when the spending requirement is high, if the two following criteria are met. First, the preference order in reward condition 3 should be the opposite of that in reward condition 1, hence it should be: product in-kind *P* rebate coupon *P* cash. Secondly, the difference between the mean value ratings in the two conditions should be significant on the 5% level according to the one-tailed t-test performed.

We let 10 purchases capture high spending-requirement for H_2. Although what constitutes *high spending requirement* is subjective, in CRPs more than 10 purchases are seldom required for obtaining a reward. Still, due that what constitutes high spending requirement is subjective, we also analyze if 5 purchases are considered a *high spending requirement*.

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[6] SEK refers to the Swedish currency.

4 A model of the value of a purchase incentive

In order to more formally explain the context of our study we use the following model which expresses the value of a purchase incentive to the customer:

$$V = pS \times pR \times UR - CS \tag{1}$$

Where:

V = Value of the purchase incentive to the customer

pS = Subjective probability of reaching the spending requirement for a reward

pR = Subjective probability that the firm delivers a promised reward

UR = utility value of a reward

CS = The spending cost for reaching the reward

We assume for this model that *pS* and *pR* are numbers in the interval [0, 1]. This implies that the higher *pS* and *pR* are the higher the value of the purchase incentive to the customer. Also, the higher *UR* is the higher the purchase incentive value according to the model. In the fictive purchase situation we study here, *pS=1* and *pR=1*. Hence, we have informed participants that they will reach the reward and that it is certain that the reward will be delivered as promised. Further, *pS* and *pR* are likely to be independent variables since the customer decides over his budget while the firm decides over rewards. In the current study we vary *R*, the monetary unit value of a reward, and *S,* the required monetary unit spending for a reward. As we increase *S*, we increase *R* proportionately, as was shown in table 1.

We assume that a customer mainly spends money to consume a product, in our case groceries. This implies that *S* is not the same as *CS* expressed in our model. Hence, consider a customer who is expected to continue buying from the same grocery store irrespective of whether a reward is offered or not. For such a customer, *CS*= 0 if the customer does not have to rearrange his budget in order to reach the reward. Hence, *CS* expresses the expected additional cost of spending incurred for reaching the spending requirement for a reward. However, in our study we have set *CS*= 0, since we have informed participants that they will reach the requirement for a reward given their current level of spending.

In terms of (1) we wish to test the effect that proportionate changes in *S* and *R* have on *UR*. Hence, we keep *CS*, *pS* and *pR* constant in our study. In terms of the model, a change from a low to a high spending requirement for a reward is expected to lead to a disproportionate increase in *UR* for goal specific rewards (products in kind) compared to unspecific rewards (cash, gift cards). Hence, we assume that the customer's goal function is to spend as to maximize purchase incentive value according to the model we have just described.

5 Results and discussion

5.1 The empirical findings

Our results indicate that the reward alternative which permits more choice is always the preferred one. Whether 2 purchases, 5 purchases or 10 purchases are required to obtain the reward does not seem to matter. The empirical indications are shown in more detail in table 2 below, where a likert

scale rating (1-7) equal to 7 denotes strongest preference possible for the reward alternative presented first in the table:

Table 2: Reward preference under different purchase requirements, mean preference rating for reward first stated (likert scale 1-7)

REQUIREMENT		REWARD CHOICE		
	No Reward (control)	Cash versus beef	Rebate versus beef	Cash versus rebate
1 purchase (N=19)	3.63*			
2 purchases (N=27)		5.48	4.74	5.52
5 purchases (N=22)		5.27	5.32	5.14
10 purchases (N=31)		5.65	5.42	5.06

*In the control condition subjects were to rate how likely they were to go grocery shopping at store Cart versus store Basket, the two stores being identical.

Table 2 shows that the preference for one reward over another one is weak across all comparisons. Hence, the strongest reward preference was found for cash over beef filet (5.65 out of 7) when 10 purchases were required while the weakest reward preference was found for rebate coupon over beef filet (4.74) when 2 purchases were required. Further, the results indicate that customers prefer to obtain cash rather than a rebate coupon or a product-in kind as reward, irrespective of the spending requirement for rewards.

The data presented in table 2 furthermore suggest some seemingly contradictory tendencies in terms of preference for the alternative permitting more choice. For rebate coupon versus beef filet as reward, the higher the spending requirement the stronger the preference for the rebate coupon reward. For cash versus rebate coupon as reward on the other hand, the higher the spending requirement the weaker the preference for cash. In the section on reward preferences across spending requirements we will in more detail analyze how preferences change as the spending requirement changes, both between one reward and another one as well as across pairwise ratings.

In the control condition we expected subjects to be indifferent between the two grocery stores. The rating value found (3.6) was slightly lower than the expectancy value of indifference (4.0). Still, the control condition data indicate that subjects are next to indifferent between the two stores. Likely, the slight deviation from the expectancy value is due to the control condition sample size (N=19).

5.2 Reward preference under low spending requirement

We reject the null hypothesis for H_1 which states that when the spending requirement for a reward in a CRP is low the customer prefers cash over a rebate coupon over a specific product as reward. The results are shown in more detail in table 3 below:

Table 3: Reward preference under low spending requirement, mean preference rating for reward first stated (likert scale 1-7)

REWARD CONDITION	REWARD PREFERENCE		
	Cash versus rebate	Cash versus beef	Rebate versus beef
Reward Condition I*	5.52	5.48	4.74
Control Condition**	3.63	3.63	3.63
*t-probability***	*0.00*	*0.00*	*0.02*

*   2 purchases required for reward, N=27
**   choice between two identical grocery stores, the value 4 equals indifference, N=19
***   t-test significance value, we require a score lower than 0.05 for a significant difference between the two conditions

The results in the table above show that the two criteria for rejecting the null hypothesis were met: the mean value likert scale rating indicated the preference order cash *P* rebate coupon *P* beef filet and the t-test results were significant on the 5% level. In line with our expectation the results thus indicate that a reward alternative permitting more choice is preferred over an alternative permitting less choice when the spending requirement is low. Hence, customers seem to value choice more highly than specificity when few efforts are required for reaching a reward.

However, the magnitude of the preference for the alternative permitting more choice is weak according to our results. In particular that is, for rebate coupon over beef filet as reward (4.74). A potential explanation is that customers do not value a rebate coupon which can be redeemed for groceries much more highly than a specific grocery product such as beef filet. In other words, for a rebate coupon to really create value of choice it may have to enable choice between products belonging to different categories such as groceries and gasoline.

On the other hand, as is shown in table 2, the preference for rebate coupon over beef filet seems to be of equal magnitude as the preference for cash over rebate coupon and cash over beef filet when the spending requirement is high. A result which suggests that choice between products belonging to different categories may not be required for a rebate coupon to be preferred over a specific product such as beef filet.

Another potential explanation to the particularly weak preference found for rebate coupon over beef filet when the spending requirement is low may have to do with the monetary value of the reward and the customer's budget. When the monetary value of the rebate coupon constitutes a *tiny* proportion of the customer's grocery budget it might be that the customer to a lower extent appreciates the choice value generated by the rebate coupon vis-à-vis the in-kind reward. However, when the monetary value of the reward constitutes a *meaningful* share of the customer's grocery budget the customer may to a higher extent appreciate the choice value generated by the rebate coupon.

5.3 Preference under high spending requirement

We cannot reject the null hypothesis for H_2 which states that when the spending requirement for a reward in a CRP is high the customer prefers a specific product over a rebate coupon over cash as reward. The results are shown in the table below:

Table 4: Reward preference under high spending requirement, mean preference rating for reward first stated (likert scale 1-7)

REWARD CONDITION	REWARD PREFERENCE		
	Cash versus rebate	Cash versus beef	Rebate versus beef
Reward Condition III*	5.06	5.65	5.42
Control Condition I**	5.52	5.48	4.74
*t-probability***	*0.20*	*0.37*	*0.11*

*   10 purchases required for reward, N=31
**   2 purchases required for reward, N=27
***   t-test significance value, we require a score lower than 0.05 for a significant difference between the two conditions

Table 4 shows that none of the two criteria for rejecting the null hypothesis for H_2 were met: the mean value likert scale rating still indicated the preference order cash *P* rebate coupon *P* beef filet and the t-test results were insignificant on the 5% level.

Contrary to our expectation the reward alternative permitting more choice is still preferred when the spending requirement is made high. A potential explanation to this finding is that customers value the flexibility generated from being able to *wait and see what reward I want* rather than deciding up front what they are spending towards. One could then expect that the higher the spending requirement, hence the more the time until the reward unfolds, the higher the value of being able to wait and see. However, according to our results the preference for cash over beef filet for instance is found to be slightly weaker when 10 purchases are required (5.06) than when 2 purchases are required (5.52) to reach the reward.

Another potential explanation is that our result is a further expression of Kivetz and Simonson's (2002) finding. They asserted and found that as the spending requirement is changed from *low* to *high* an individual's reward preference shifts from necessity items to luxury items. Necessities thus become insufficient compensation for effort when much effort is required. If the subjects in our study consider beef filet and grocery rebate coupons to be necessities then these rewards may provide insufficient compensation when much effort is required. The consideration of preference for reward choice versus reward specificity thus becomes subordinated to whether the reward is considered a necessity or luxury. As a consequence hereof, cash becomes the only acceptable reward alternative when the spending requirement is high.

5.4 Reward preferences across spending requirements

Until now we have focused on reward preferences when the spending requirement is either high or low. We now turn to if our results indicate any reward preference patterns across different spending requirements. Figure I below depicts the results of our study in this regard:

Figure 1: Mean reward preferences (likert scale 1-7, origin not shown) under three different spending requirements (number of purchases)
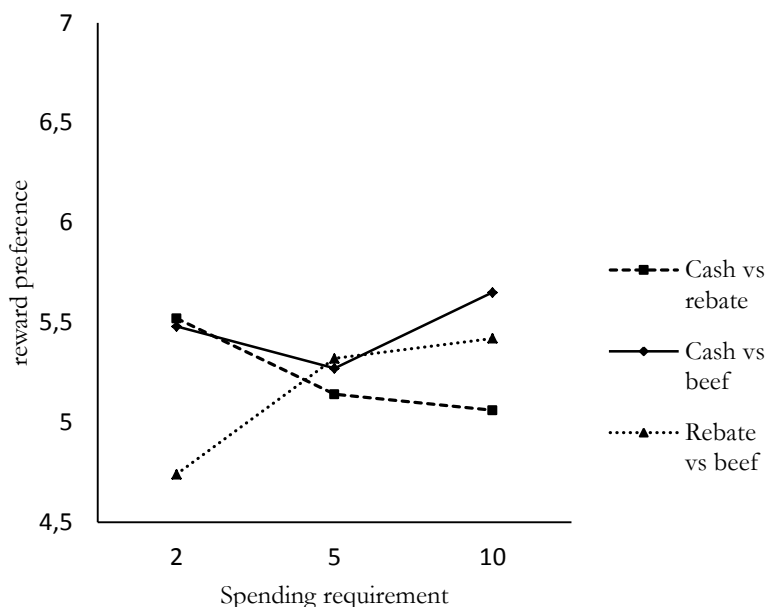

Figure 1 shows how a change in the spending requirement influences the preference for one kind of reward relative another one. The markers in the figure denote the three spending requirements, in terms of number of purchases, under which subjects have made reward preference ratings. A likert scale rating higher than 4 denotes a preference for the reward alternative stated first in the figure.

The standard deviations for reward preference ratings (likert scale 1 to 7) shown in figure I were higher when 2 purchases were required (ranging from 2.08 to 2.25) than when 10 purchases were required (ranging from 1.54 to 1.84). This indicates that individuals are more certain in their reward preferences when many purchases are required to qualify for a reward. To a firm offering a CRP It would mean that it is more difficult to choose kind of reward to offer in a CRP with a low spending requirement.

Figure I depict one particularly unexpected result: as the spending requirement increases, the preference for cash over rebate coupon as reward becomes weaker while the preference for rebate coupon over beef filet as reward becomes stronger. The result is surprising since cash is a less specific reward than rebate coupon which in turn is less specific than beef filet. Hence, following reward specificity, the change in magnitude of each preference ought to go in the same direction as the spending requirement increases.

A potential explanation to this seemingly contradictory finding might be that two effects are working in different direction. One effect is the amount of choice. While cash permits more choice than a rebate coupon a grocery rebate coupon still permits quite much choice since it can be used to buy any grocery. In difference, a grocery rebate coupon permits much more choice than beef filet which permits no choice. As a consequence hereof, the difference in value of choice might be much

higher for a rebate coupon versus beef filet in comparison to cash versus a rebate coupon as reward. If choice is further valued more the higher the spending requirement then its effect on reward preference has stronger influence for rebate coupon versus beef filet than for cash versus rebate coupon as reward.

However, still this is an insufficient explanation to why the preference for cash over rebate coupon decreases in magnitude as the spending requirement increases. Here the other effect may be in play: reward discounting. The explanation may thus be that individuals discount cash rewards more steeply than rebate coupon rewards. That is, the higher the spending requirement the more a relatively higher discount rate for the cash reward will influence the present value of the cash reward vis-à-vis the present value of the rebate coupon reward. The assumption is thus that when more purchases are required for obtaining a reward it takes longer time for the individual to reach the reward.

Individuals may discount cash rewards more steeply than rebate coupon rewards because there are more alternative uses of cash. A rebate coupon reward for groceries is thus limited to this product category while cash can be used to buy any product, thereby its higher opportunity cost for the individual if delayed. That individuals discount a reward if it is delayed compared to immediate (see Estle et al 2007) and that individuals discount different kinds of rewards differently much (see Odum and Rainaud, 2003; Soman et al. 2005) have been empirically indicated in previous studies.

Amount of choice and reward discounting may this way together explain why the preference for cash over rebate coupon as reward becomes weaker while the preference for rebate coupon over beef filet as reward becomes stronger as the spending requirement increases.

6   Conclusions

In the current study we tested the preference between reward choice and reward specificity under different spending requirements (number of purchases) for rewards using a fictive repeated purchase incentive. We found that irrespective of the size of the spending requirement, reward choice was preferred over reward specificity. Hence, across spending requirements the study participants' ratings indicated a preference for cash over rebate coupon over product in kind as reward.

Drawing on goal-setting theory we expected a specific goal, product-in kind, to create a stronger repeated purchase incentive than a general goal, cash, when the spending requirement is high. The rationale would be that the customer wants to know what he is striving for in order to make many efforts. The empirical result found is though contrary to our expectation. How come that cash is preferred when the spending requirement is high needs to be further studied. In this regard, to what extent customers value the flexibility generated from being able to *wait and see what reward I want* versus deciding up front what they are spending towards is an issue of importance for design of repeated purchase incentives.

We further empirically found that as the spending requirement increases, the preference for cash over rebate coupon as reward becomes weaker while the preference for rebate coupon over product in-kind as reward becomes stronger. Following this result it would be interesting to study how the difference in amount of choice between any two rewards matter for reward preference under different spending requirements. Also, it would be interesting to study to what extent different kinds of rewards are discounted under different spending requirements, hence how discounting influences reward preference.

Our results are limited in several respects. The sample was quite small (N=99), especially the control condition (N=19), which reduced the reliability of the results from the one-tailed t-tests performed. The study was carried out in a classroom setting implying a risk that the fictive context does not correspond to the real context. We only studied one group of customers; hence different results may be obtained for other customer groups than students. In the current study we further included only one in-kind reward; beef filet. How in-kind rewards with different product characteristics create a repeated purchase incentive under different spending requirements needs to be further studied. Furthermore, we only tested reward preference for three different spending requirements other requirements need to be further studied as well.

In the current study we informed participants that they will reach the reward (*pS=1*) and that it is certain the reward will be delivered as promised (*pR=1*). It would be interesting to study the preference for kind of reward under spending uncertainty as well. Finally, our result indicates that cash is the reward which creates the strongest repeated purchase incentive. Although cash is likely to be more costly for the firm to offer as reward compared to a product in-kind, it would be interesting to study if the additional cost incurred from offering cash as reward is outweighed by the benefit in terms of repeated purchase.

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