

Bronze, Silver and Gold: Effective Membership Design in Customer Rewards Programs

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Abstract: Many companies use rewards programs to create so called “loyal” customers. Information Technology (IT) has made it possible to design such incentive programs in principle with endless variations at a low cost. It means that the company can, with the use of IT, offer non-linear incentives that create “loyal” customers more effectively than linear ones. Internet has also reduced the cost for the customer to search and compare products and services like air flights, hotels etc. In such a competitive context, the company can use the programs to gain an advantage with a differentiated offer to the customer and to create lock-in effects still at a low IT cost. Field observations show surprisingly that programs look very much alike and do not present as much variation as could be expected. Of special interest in this paper is the fact that companies typically offer three, or less, membership levels to increase the incentive for the customer to spend money at the company. These three levels come in different versions like, for example, “Bronze”, “Silver” and “Gold” or with similar labels. The reward to the customer is generally associated and accelerated with membership level. In this paper, we analyze the consequences of using membership levels as a way to create both competitive differentiation and effective customer incentives. We suggest a model for understanding how the consumer decides on spending at a company that offers a reward program with different membership levels. The decision setting for the customer is described as a risky contract with a risky time-state-contingent claim. The contract is risky since the terms and conditions for membership can be altered by the company, without any legal penalties. The claim is risky since it is uncertain to the customer whether the state required for the membership will be achieved. We show with the help of this model that the present use of a small number of membership levels could be questioned as the most effective incentive mechanism.

Keywords: customer rewards program, customer loyalty, membership levels, incentives, differentiation, time-state-contingent claims

1. Introduction

Following American Airlines launch of its so-called “AAdvantage” program in 1981, other airlines, hotel chains, car rentals, bookstores, supermarkets, credit card companies, clothing retailers etc have followed suit offering “IT-based” customer rewards programs (in the following called CRP). In a standard CRP, customers earn points based on money spent at a particular company, a group of companies or CRP-partners. After having earned a certain number of points the customer can exchange these for some reward.

Basically, the programs can be seen as discount programs where the discount is typically paid in-kind after the customer has spent an accumulated amount of money. IT has made it economical for the company to “memorize” accumulated spending at a low variable cost for massive numbers of individual customers. Many programs are non-linear, i.e. they give increasing rewards for customers who spend more, typically designed as accelerated earning of points and more rewards on higher membership levels.

It is interesting to observe that many companies, at least in some markets or industries where CRP is frequent, use three or fewer membership levels. The phenomenon is even more interesting when we consider that the programs are IT-based and that the requirements for membership could easily be differentiated at a low cost by changing some code in the software. This paper attempts to analyze whether the practice of using a three-or-less-membership-level model is the most effective way to design “loyalty” incentives.

2. Previous studies

Earlier research has proposed various definitions of customer rewards programs (also referred to as customer “loyalty” programs or similar). Some examples of more or less different definitions are described in Table 1.

Table 1: Examples of definitions of customer rewards programs

Source	Definition
Sharp and Sharp, 1997	Structured marketing efforts which reward, and therefore encourage, loyal behaviour
Leenheer et al, 2007	Integrated system of marketing actions, which aims to make member customers more loyal
Berry, 1995	Schemes devoted to create pricing incentives and developing social aspects of a relationship
Shapiro and Varian, 1997	Scheme rewarding customers for repeat purchases
Johnson, 1998	Marketing program designed to increase the lifetime value of current customers via a long-term interactive relationship
Youjae and Hoseong, 2003	Marketing program designed to build customer loyalty by providing incentives to profitable customers
Palmer et al, 2000	Identifiable package of benefits offered to customers which reward repeat purchases

From the definitions we see that they focus on the concepts of “loyalty” or “repeated purchase” as the specific aim of CRP. Whether “loyalty” is a good word for a customer who purchases repeatedly at the same company could be questioned. A customer could spend repeatedly at many competing companies offering different CRP. In fact, many customers seem to be enrolled in multiple programs according to Berman (2006). In such cases, it seems somewhat misleading to call a customer who spends repeatedly at many companies to be “loyal” to any of them. Also, if “loyalty” is partly an effect of a program that creates lock-in and switching costs, “loyal” does not seem to be the best description of the reason for the customer’s behaviour. It may even be the case that repeatedly spending customers are mistakenly viewed by the company as “loyal” customers, in the sense of having an overall positive attitude to the company, when they in fact may be the least “loyal” ones and only spending to get the rewards, as suggested by Reichheld (2006) and McKee (2007).

There seems to be a need for more generic criteria that gives the phenomenon CRP a distinct meaning. For instance, Dowling and Uncles (1997) assert that price promotions are one kind of CRP whilst Youjae and Hoseong (2003) argue for a distinction between price promotions and CRP. Criteria have been suggested by Sällberg (2004) and could be useful, in addition to a definition of the construct, to also further distinguish between what is and what is not a CRP. However, that is outside the scope of this paper. Our aim here is to introduce a way to describe CRP and especially the membership designs as time-state-contingent claims. The approach should be seen as a first step in a larger effort to contribute to a clearer understanding of the workings of CRP.

2.1 Studies of the value of CRP for the company

Researchers have previously pointed out a lack of research on the value of CRP for companies. Jain and Singh (2002) have called for research on CRP and the impact on company profitability. Sharp and Sharp (1997) have suggested that there is a lack of research on appropriate measures of effective CRP. Bolton et al. (2000) use time-series data, (collected on CRP members of a financial services company) in order to find out what effect a CRP has on repeated purchase. Their results do not indicate that CRP members show stronger customer retention than non-members. However, they conclude that the CRP members seemed to discount negative evaluations of the company vis-à-vis competitors, thereby increasing revenues. They also conclude that there is a lack of research on the effect of CRP on repeated purchase as well as its effect on the financial outcome for the company.

Several studies concern the relationship between CRP and branding, especially how a CRP can support brandings strategies. Dowling and Uncles (1997 p.74) even suggest that an effective CRP must leverage the brand’s value proposition to the customer: The authors argue that it is important for the company to fully cost the CRP and to design a reward scheme that maximizes the buyer’s motivation to make the next purchase.

O’Malley (1998) has suggested that CRP is developed for several reasons: to reward “loyal” customers, to generate information about customers, to manipulate customer behaviour or as a defensive measure to combat a competing scheme. O’Malley also suggests, that companies offer CRP because they believe that “loyal” customers are more profitable, cost less to serve, are less price sensitive and generate positive word

of mouth. Despite that generating information about customers and manipulating customer behaviour might be explanations to why companies develop “loyalty” schemes; it does not explicitly show how customers value the CRP. Leenheer et. al. (2007) suggest that the effectiveness of a CRP may be related on the savings component, the discount rate and multi-vendor structure. The results of their empirical study indicated the savings component and multi-vendor structure to have positive impact while higher price discount rates were not indicated to have any impact on the effectiveness (measured as “store attraction” or “share of wallet”) of CRP.

De Wulf et. al. (2002, p.4) suggest that both the customer and the company have to accept costs to outweigh expected advantages. The customer has to give up some freedom of choice between different companies and sometime o pay en entry fee to join the CRP. The company has to accept a cost by giving some rewards but in return expects that this will be outweighed by the present value of future income from a long-term relation with the customer. They also suggest that it is unknown which CRP attributes are crucial in the mind of the customer and how these attributes influence customers’ intentions to participate in CRP. The authors hypothesize using the concept of equity (attitude) that personal data release, participation cost, purchase frequency, participation exclusiveness and participation efforts are customer inputs while program benefits, number of program providers and program duration are customer outputs. Their empirical hypothesis test indicated participation costs and program benefits to determine a customer’s choice to participate in a CRP for almost 70%. That is, six other attributes were indicated to be of minor importance as determinants of customer participation to a program. The discussion does not concern the question whether it is actually possible that both parties may benefit from a CRP and what conditions have to be met in order for that to be the case

Previous research has also concerned the determinants of the value of a CRP for the company. The critical determinants suggested by O’Brien and Jones (1995) differ from the ones suggested by De Wulf et al (2002). The latter suggest program duration, participation cost, personal data release, and number of program providers to be critical while the former do not. The former though suggest the cash value of redemption rewards as a determinant while the latter more generally emphasize program benefits. While Leenheer et al.’s (2007) empirical study indicates that the price discount rate has no significance for the effectiveness of CRP, O’Brien and Jones on the other hand argue for cash value of redemption rewards to be critical for valuing CRP. Neither argues that the brand’s value proposition has to be leveraged in order for the CRP to be valuable, which Dowling and Uncles (1997) do. While O’Brien and Jones and De Wulf et al. discuss determinants on a rather similar level O’Malley reasons on a more abstract level. O’Malley does not argue for any critical determinants within each abstracted level. This enhances the divergent picture on what drives the value of CRP. Some researchers, for example Mauri (2003), Byrom (2001), Dennis et. al. (2001), argue that the reason for implementing CRP is to get access to customer information.

More recently, Leenheer and Bijmolt (2008) have suggested that knowledge about a market segment or even individual customers can provide better customer value and develop stronger customer relationships specifically through e.g. optimization of loyalty program design. In Van Heerde and Bijmolt (2005), the distinction between members and non-members in CRP is stressed as important in order to understand how revenues can be generated and promoted more effectively.

The value of CRP to the company is clearly not unrelated to the value for the customer. O’Brien and Jones (1995) suggest that the combination of the following five elements determines the value of a CRP for customers:

- E1: The cash value of redemption rewards.
- E2: The range of choice of rewards.
- E3: The aspiration value of the rewards.
- E4: The subjective likelihood of achieving rewards.
- E5: The scheme’s ease of use.

How these types of customer values are related to company values would be interesting to study further. Understanding the value and workings of CRP is not only an interesting topic for academic research but could also help companies to improve the design of CRP to the benefit of both consumers and companies. Dowling and Uncles (1997, p.1) even suggest that the increase in prevalence of CRP is an effect of that “*if you see a good idea copy it*” and that CRP can destroy rather than improve value for many companies. More knowledge on what determines the value of CRP could help companies to avoid such imitation.

3. The “Bronze, Silver and Gold” phenomenon

For a number of economical reasons, CRP is more or less standard in the air flight and hotel markets. Observations from the field show that these programs typically are designed in a similar fashion when it comes to membership levels. For example, in the “EuroBonus” program of SAS, there are three membership levels called: “Basic”, “Silver” and “Gold”. In Table 2, membership levels for some well known large airlines and hotel chains are described as an illustration of this observation.

Table 2: Examples of CRP membership levels (source: respective company)

Company	1st level	2nd level	3rd level
American Airlines	Gold	Platinum	Exec. Platinum
Continental Airlines	Silver Elite	Gold Elite	Platinum Elite
United Airlines	Premier	Prem. Exec.	Prem. Exec. 1k
SAS	Basic	Silver	Gold
KLM	Silver	Gold	Platinum
British Airways	Blue	Silver	Gold
Lufthansa	Freq.	Senator	Hon. Circle
Singapore Airlines	Kris	Silver	Gold
Best Western	Platinum	Diamond	
Hilton	Silver VIP	Gold VIP	Diamond VIP
InterContinental	Exec.	Ambassador	
Marriott	Gold	Black	Platinum
Sheraton	Gold	Platinum	

Table 2 illustrates that the use of exactly three membership levels are popular among large airlines. Among hotel chains, three or two levels are popular. It is interesting to note that the companies seem to, although in a limited way, use the membership labels to compete, e.g. the first level is called “Basic” by SAS and “Silver” by KLM. Also, it can be noted that a certain selection of precious metals seem to be preferred as a way of indicating order. Our main interest here is however the number of levels used. The observations seem to reveal a preference among companies for few rather than many membership levels. One reason for this may be that the company put a small value on differentiating its CRP. Another explanation may be that the companies consider programs that are easy-to-use and easy-to-understand (compare element E5 above) more effective and therefore many membership levels with more complex reward models as ineffective. Previous studies have not focused primarily on membership levels but rather on broader issues. The approach in this paper aims to shed more light on the value of membership design for the company.

3.1 A structure of membership rewards

To structure the membership part of a CRP, we suggest that the designs can be generally expressed as a time-state-contingent claim. To illustrate with the example of American Airlines, the membership part of the program can be described as follows:

If you in *1 calendar year* (time)
 fly *25 000 miles* with us (state)
 then you can claim *Gold membership*. (claim)

For anyone who is slightly familiar with software code, it is obvious that the above type of rules is easily translated into a few lines of code. Also, it is clear that the time-state-claim variables can be set with almost endless variations resulting in a large number of possible membership levels. In the Hilton example, a new level could for example be:

If you in *2 calendar years* (time)
 spend *5 nights* in our hotels XYZ (state)
 then you can claim *Green membership*. (claim)

To execute any such contract, the only information requirement is that the system retrieves data about the individual customer’s spending (amount, where, when). Without going into the many details at this point, we may say in general that a higher membership level usually requires more spending (miles, nights or similar) and gives more valuable rewards. We will presently return to this type of contingent claim structure when we analyze the effectiveness of membership designs.

4. A model of the value of spending to become member

The value of a CRP for companies is not unrelated to how customers value the scheme. We will adopt the definition of CRP by Shapiro and Varian (1997), and claim that the value of the CRP depends on how well it creates incentives for the customer to purchase repeatedly at the company.

The question is here how the membership design contributes to this incentive. We suggest that the value of the contingent membership claim V for the customer can be expressed as:

$$V = ps \times um \times pc$$

where ps is the probability that future spending will reach the required state for membership m in stipulated time, um is the utility of reaching membership m and pc denotes the probability that the contract stays valid, i.e. that the expected rewards can be contractually claimed.

If we compare with previous suggestions, it could be argued that our model includes four of the five elements suggested by Jones and O'Brien (1995) as described above. The suggested elements $E1$, $E2$ and $E3$ are included in our um and $E4$ is included in our ps . The element $E5$ needs to be explored further and is not explicitly represented in our present model.

4.1 Underlying assumptions

We assume that ps , um and pc are numbers in the interval $[0,1]$. This implies that the higher pc , ps or um , the higher value for the customer. It also seems like a reasonable assumption that pc does not change when the customer spends money at the company, i.e. we can treat pc as a constant without any effect on the incentive to spend. We further assume that customer prefers to become member sooner than later. We also assume that the customer maximizes value, which implies that the higher value of the contingent claim, the larger is the incentive to spend at the company, everything else equal. In other words:

The customer has an incentive to spend money
at the company
if it leads to an increase in $V(\cdot)$.

We argue that there is a significant cost for the company to increase the membership reward, i.e. um . This could be a reasonably general assumption but with some exceptions if non-substantial changes have effect on the CRP value. One example of this could be if the company just changes the membership label from "Basic" to "Gold" and this is evaluated by the customer as an increase in reward. We further argue that there is a significant cost to decrease the contract risk pc . One way of decreasing this risk would be to show a credible record of not having changed the CRP terms in history. A change of the terms would only be considered if the terms are ineffective. Staying with ineffective terms to increase pc implies that there is a cost to increase pc . Based on this, we will argue that there is one way for the company to increase the value of the CRP without incurring more costs, which is to increase the probability ps and reduce um less. In other words, to maximize the number of customers who aspires on a higher membership level.

4.2 Incentive to reach a membership level

Suppose we have a customer called K and a CRP with one membership level called m and the following generalized time-state-contingent claim:

If K in time period T
spends X amount at the company
then K can claim the membership m .

As long as K has not reached m , either ps or um or both will increase with spending, hence, K will have an incentive to spend more money at the company. When K has spent enough to claim m , further spending will not increase ps or um , hence, the membership design does not create any further spending incentive for K . This is not a surprising result, since it says that the membership level has an incentive effect on spending but only for those who are not members (or otherwise risk to lose the membership). In other words, we can say that we model the assumption that a goal creates an incentive as long as it has not been reached. This would imply that there should always be one membership level that some customer aspires hence that no customer can achieve.

4.3 Spending incentive and opportunity cost

Given that one membership level works as incentive for non-members, the question is if many membership levels are more effective than one. We could claim from the result above that the total spending incentive is larger the more customers who aspires on higher membership levels. To develop the model further into being more realistic, we should introduce the possibility that the customer has a cost for spending at the specific company compared to spending at any other company, disregarding the expected value of rewards. Let us call this cost C . We now can develop our previous assumption into the following:

K has an incentive to spend money
at the company
if the increase in $V(.)$ is larger than C .

If $C > 0$, then the CRP can only work effectively as an incentive if the customer aspires on a higher membership level, i.e. $0 < p_s < 1$. This implies that a company competing for customers, i.e. where $C > 0$, should have as many customers as possible who aspires on higher membership levels. If the consumers differ in spending characteristics, this is more likely to happen, the more membership levels the program has.

5. Concluding discussion

If consumers in the market have different spending characteristics implying different membership levels aspirations, it means that the company should have $n+1$ membership levels if the consumers have n different spending characteristics. Only if this consumer characteristic can be efficiently divided into two groups, then three membership levels seem effective. A perhaps naive explanation to why the companies seem to prefer certain number of levels could be that the companies are anchored in the versioning of their underlying primary products. If airlines have three versions of service, like "Coach", "Business" and "First Class", it may influence the membership design. Another reason may be that it is considered difficult to create membership labels expressing that all "loyal" customers are important on an increasing scale.

The result to have $n+1$ membership levels is not surprising but could rather be seen as a special case of optimal differentiation of information products with insignificant cost for differentiation. However, also here we can often observe the magic of the number three, as for example in software sold in the versions "Home", "Professional" and "Enterprise". These kinds of versioning strategies are discussed by Shapiro and Varian (1997).

It is interesting to note that in other areas with insignificant differentiation costs, rankings are used with much finer grading. Take the case of Judo for example, where a nominal scale with up to 14 colours and colour combinations work as "membership" levels. Everyone who trains Judo can aspire on a higher level since the rank system, in theory, actually goes beyond the 10th degree (*dan*) of black belt, i.e. it has no upper limit. To our knowledge, a small number of *jūdōkas* worldwide have reached the 10th degree but no one has reached the 11th. There are probably a lot more examples of this type in different areas. The conclusion must be that there are different theories in use when designing membership levels or alike. It would be interesting to explore empirically the rationale for these different designs.

References

- Berman, Barry. (2006) "Developing an Effective Customer Loyalty Program", *California Management Review*, Vol. 49, No. 1, pp. 123-149
- Berry, Leonard L. (1995) "Relationship marketing of Services-Growing Interest, Emerging Perspectives", *Journal of The Academy of Marketing Science*, vol. 23, No. 1, pp. 236-245
- Bolton, Ruth N. and Kannan, P.K. (2000) "Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value", *Academy of Marketing Science Journal*, Vol. 28, No. 1, pp. 95-109
- Byrom, John. (2001) "The Role of Loyalty Card Data within Local Marketing Initiatives", *International Journal of Retail & Distribution Management*, Vol. 29, No. 7, pp. 333-342
- Dennis, Charles, Marsland, David and Cockett, Tony. (2001) "Data Mining for Shopping Centres-Customer Knowledge-Management Framework", *Journal of Knowledge Management*, Vol. 5, No. 4, pp. 368-374
- Dowling, Grahame and Uncles, Mark. (1997) "Do Customer Loyalty Programs Really Work", *MIT Sloan Management Review*, Vol. 38, No. 4, pp. 71-83
- Van Heerde, Harald J. and Bijmolt, Tammo H. A. (2005) "Decomposing the Promotional Revenue Bump for Loyalty Program Members and Nonmembers", *Journal of Marketing Research*, Vol. 42, No. 4, pp. 443-458
- O'Brien, Louise and Jones, Charles. (1995) "Do Rewards Really Create Loyalty", *Harvard Business Review*, Vol. 73, No. 3, pp. 75-83
- Leenheer, Jorna and Bijmolt, Tammo. (2008) "Which Retailers Adopt a Loyalty Program: An Empirical Study", *Journal of Retailing and Consumer Services* (online: [doi:10.1016/j.jretconser.2007.11.005](https://doi.org/10.1016/j.jretconser.2007.11.005))

- Leenheer, Jorna, Bijmolt, Tammo, Van Heerde, Harald and Smidts, Ale. (2007) "Do Loyalty Programs Really Enhance Behavioral Loyalty? An Empirical Analysis Accounting for Self-Selecting Members". *International Journal of Research in Marketing*, Vol. 24, No. 1, pp. 31-47
- Mauri, Chiara. (2003) "Card Loyalty- A New Emerging Issue in Grocery Retailing", *Journal of Retailing and Consumer Services*, Vol. 10, No. 1, pp. 13-25
- McKee, Steve. (2007) "The Problem with Loyalty Programs", BusinessWeek.com (online). 10/5/2007, http://www.businessweek.com/smallbiz/content/may2007/sb20070510_406822.htm
- O'Malley, Lisa. (1998) "Can Loyalty Schemes Really Build Loyalty?", *Marketing Intelligence and Planning*, Vol. 16, No. 1, pp. 47-55
- Palmer, Adrian; McMahon-Beattie, Una and Beggs, Rosalind. (2000) "A Structural Analysis of Hotel Sector Loyalty Programmes", *International Journal of Contemporary Hospitality Management*, Vol.12 No. 1, pp. 54-60
- Reichheld, Fred. (2006) *Ultimate Question: For Driving Good Profits and True Growth*, Harvard Business School Press, Boston
- Rowley, Jennifer and Dawes, Jillian. (2000) "Disloyalty: a Closer Look at Non-Loyals", *Journal of Consumer Marketing*, Vol. 17, No. 6, pp. 538-547
- Sällberg, H. (2004) *On the Value of Customer Loyalty Programs: a Study of Point Programs and Switching Costs*, Diss., Linköping studies in science and technology
- Shapiro, C. and Varian, H. R. (1998) *Information Rules: A Strategic Guide to the Network Economy*, Harvard Business School Press, Boston
- Sharp, Byron and Sharp, Anne. (1997) "Loyalty Programs and their Impact on Repeat-Purchase Loyalty Patterns", *International Journal of Research in Marketing*, Vol. 14, No. 5, pp. 473-486
- De Wulf, Kristof, Odekerken-Schröder, Gaby, De Canniere, Marie Helene and von Oppen, Claudia. (2002) "What Drives Consumer Participation to Loyalty Programs? A Conjoint Analytical Approach", *Working paper*, Gent Management School
- Youjae Yi and Hoseong Jeon. (2003) "Effects of Loyalty Programs on Value Perception, Program Loyalty and Brand Loyalty", *Journal of the Academy of Marketing Science*, Vol. 31, No.3, pp. 229-241

