

# **Reward redemption behaviour in retail loyalty schemes**

by

**Andrew Smith (University of Nottingham)**

**and**

**Leigh Sparks (University of Stirling) \***

## **\* Corresponding Author**

Institute for Retail Studies,  
Department of Marketing  
University of Stirling,  
Stirling  
FK9 4LA  
United Kingdom

**Tel: +44 (0)1786 467384**

**Fax: +44 (0)1786 465290**

**E-Mail: [Leigh.Sparks@stir.ac.uk](mailto:Leigh.Sparks@stir.ac.uk)**

**Final Version June 2007**

# **Reward redemption behaviour in retail loyalty schemes**

## **Abstract**

In most retailer loyalty schemes, cardholders obtain 'points' based on their purchases. These points may be redeemed for rewards. This paper uses individual cardholder transaction records from a leading UK retailer and a related qualitative study to investigate this redemption behaviour. It provides a description and taxonomy of reward redemption behaviour, including non-redemption. Amongst those that do redeem points, different types of redemption behaviour are found. Cluster analysis produced a three cluster solution. Explanations of this behaviour and the taxonomy are developed through the qualitative research. Implications for loyalty scheme management and research into loyalty schemes are identified.

## **Keywords:**

Loyalty schemes, retailing, consumer behaviour, redemption, management.

## **Reward redemption behaviour in retail loyalty schemes**

Loyalty schemes are common in consumer marketing. Most are operationalised through a reward system. Loyalty scheme members accrue 'points', normally based on dimensions of the volume, value and frequency of spend. The member 'redeems' the points collected and thus obtains various 'rewards' e.g. free flights, cash-back, money-off or gifts. Kumar and Shah (2004, p328) note that "The rewards associated with loyalty programs provide a means to establish reciprocity between the customer and the company. That is rewards may generate a feeling of obligatory response from the customer in the form of more business which in turn may lead to more rewards offered from the company and so on". This reward redemption behaviour in a retail context is the focus of this paper. The paper's contributions are in using real-world data to analyse actual reward redemption behaviour, and in the development and explanation of a taxonomy of redemptive behaviour.

Reward redemption behaviour in retail loyalty schemes is important from a number of perspectives. First, retailers expend considerable effort and money on developing and operating loyalty schemes and systems for consumers. The data from such schemes are valuable, but rewards are seen as important in encouraging attitudinal loyalty towards the retailer and in building long-term relationships or customer value (e.g. Gomez et al 2006, Meyer-Waarden 2007). Secondly, from a management perspective redemption rates measure both success and failure of the 'loyalty' activity and consumers' engagement with the retailer. Successful retail loyalty scheme operators claim that redemption activity directly generates additional revenue through better knowledge of consumers and enhanced spending by satisfied consumers (e.g. Humby et al 2003, Taylor and Neslin 2005). Thirdly, for consumers, redemption is the most tangible component of their loyalty scheme membership and may thus be of considerable importance to them. As Nunes and Drèze (2006, p129) note "to be

attractive a program must lead to redemption; that's when the benefits really become most salient to the consumer". Similarly, Meyer-Waarden and Benavent (2006, p83-84) claim "it is not the presence of a programme that is crucial, but the associated integrated actions in terms of less or more individualised flow of rewards, communications and offers".

Academic evaluation of retailer loyalty schemes however, has not focused on redemption, but rather on shopping and purchasing behavioural change and customer or scheme profitability. Research into whether loyalty schemes 'work' shows conflicting findings, but often defines success in managerial terms (e.g. Uncles 1994, Dowling and Uncles 1997, Conneran and Lawlor 1997, Sharp and Sharp 1997, East *et al* 1998, O'Malley 1998, Hart *et al* 1999, Worthington 2000, Uncles *et al* 2003, Nunes and Drèze 2006). More behaviourally focused research (e.g. Smith *et al* 2003, Lewis 2004, Taylor and Neslin 2005, Gomez *et al* 2006, Kivetz *et al* 2006, Meyer-Waarden and Benavent 2006, Meyer-Waarden 2007), again shows conflicting views over loyalty scheme effects on consumer behaviours. Redemption behaviour and its implications tend to be ignored or down-played. This lack of concern may be because much of the research on loyalty schemes tends not to use actual consumer purchases, but focuses instead on customer intentions often identified by experimental or survey designs (Benavent *et al* 2000). This may be changing (e.g. Allaway *et al* 2006), despite data availability issues and commercial confidentiality which can be further barriers to research in this area.

This lack of research on redemption in retail loyalty schemes is a gap in knowledge given the importance, and the presumed effect of 'rewards' on both consumer loyalty towards retailers and shopping behaviour. This paper aims to fill a part of this research gap by first considering different characteristics of real-world redemption and non-redemption behaviour and

secondly, developing and exploring a taxonomy of this redemption behaviour. The paper is structured into five sections. First, a literature review focusing on redemption behaviour in various contexts is presented to situate the research. Secondly, the methodology is outlined. Thirdly, the analysis is presented. The fourth section reports conclusions and managerial implications from the analysis. Finally, limitations and future research directions are discussed.

## **Redemption Behaviour and Loyalty Schemes**

### *Redemption Rates*

Retail loyalty schemes are operationalised through the use of a consumer identification mechanism, often a 'loyalty' card. However consumer card usage itself is highly variable. Wright and Sparks (1999) note that 23% of the cards held by their respondents were not used every time a purchase was made and 13% of the cards held were not used at all in a three month period. In Bolton et al's (2000) sample of card holders, 43% had no transactions at all in a one-year period. Mauri (2003) shows for a single Italian supermarket how of the 8357 cards issued initially, some 24.6% were never activated and only 39.1% were in use a year later. In Allaway et al's (2006) study, 25.8% of cardholders never used their loyalty card a second time. Research therefore records basic differences amongst consumers with regard to membership of, and card usage in, loyalty schemes. Differences are also likely in redemption behaviour in such schemes.

Relatively little however is known about redemption rates. There is the phenomenon of the 'liability of unredeemed miles' in airline frequent flyer schemes, leading to Shugan's (2006) view of some loyalty schemes as generating customer liabilities rather than customer assets. Taylor (2001) shows a coupon redemption rate of 12.5% in a fast-food restaurant setting.

NCH Marketing Services (2002) record 239bn issued coupons in the USA in 2001 but only 4bn redemptions (1.7%). Their comparable figures for the UK are 6.1bn issued and 569mn redeemed coupons (0.9%). However NCH Marketing Services (2002) point to a large growth in the UK of retailer loyalty card coupons/vouchers in 2001 and a 47% redemption rate in this category. This is much higher than general coupon redemption rates, suggesting that loyalty scheme redemption is a different phenomenon, and should be considered separately.

Some retailer experimentation on loyalty and redemption has been reported. Drèze and Hoch (1998) focus on the introduction of a 'Baby Club' by a supermarket. There was a 29% redemption rate of points (issued on till receipts) into vouchers, of which 80% were themselves then redeemed. Non-redemption was ascribed to a number of operational, psychological and practical factors. These included insufficient cumulative purchase volume to attain thresholds for vouchers, the type of scheme in use, disinterest in rewards and sheer forgetfulness (Capizzi et al (2004) quote consultancy results that 19% of respondents claimed to 'usually forget' about loyalty programme points they have earned). This experiment also suggested that some retailers are dependent on non-redemption to make such schemes economically viable (see also Zhang *et al* 2000), though this view is not universally accepted.<sup>1</sup>

Taylor and Neslin (2006) consider a Turkey Reward Program and show the importance of both "points pressure" and "rewarded behaviour". Shoppers chased points and spent more after redemption than they did pre-program. Store sales increased by 6.1% and 6.4% in two years and those who redeemed showed a 1.8% increase in sales in the weeks post-redemption. The short-term effect of points collection was seen to be more substantial than the effect of

changed behaviour, but both suggest the potential for increased profitability. Longer-term effects may become more important if the changed behaviour is sustained.

Commercial organisations have become increasingly interested in redemption behaviour. In their analysis of the UK's most successful retail loyalty programme (Tesco's Clubcard), Humby et al (2003) refer often to redemption behaviours and rates. They state:

“No one knew how (Clubcard vouchers) might affect normal trading patterns, whether customers would buy something special, as Tesco would like, or just buy their normal items and use the vouchers to cut their normal shopping bill. No one knew whether the customers would use their vouchers on the first day, or save them up.” (Humby et al 2003, p75)

This initial lack of knowledge has however been transformed subsequently by detailed on-going analysis of redemption rates and behaviours. Whilst Humby et al (2003) provide only limited hard data, the redemption rate of the initial Tesco Clubcard vouchers in 1995 is given as 51%, a ‘staggering’ difference to responses to previous sales promotions (response rates of 3-5% were common). Differences in redemption rates and behaviour amongst different target groups and offers are noted and then acted upon. Redemption is viewed as customers ‘talking back’ and non-redemption as a managerial failure.

The emphasis in most retail loyalty schemes would seem to be on developing an ongoing or long-term relationship, with an expectation that redemption will occur and that redemption behaviour reinforces this relationship (or involvement) over time. This raises issues about behaviour once redemption has taken place. As Mauri (2003) concludes “Does shopping behaviour change after the consumers redeem the points? And what happens after 2, 3, ..., n redemptions?” (p24). Humby et al (2003) note that the “motivation to burn means a motivation to earn” (p215) linking redemption to increased spending and changed behaviours. Nunes and Drèze (2006) also point to enhanced spending after redemption, but emphasise the need for strong scheme design, including the design of redemption opportunities.

### *Scheme Design and Redemption*

Redemption may be affected by scheme design. Design questions (O'Brien and Jones 1995), including issues of apparent fairness, understanding, speed of accumulation and the possibilities of attainment of rewards have an impact on participation in loyalty schemes (Nunes and Drèze 2006). The perceived ease of points collection and reward attainment (goal-gradient) may condition attitudes towards scheme participation and thus redemption (Kivetz et al 2006). Sharp and Sharp (1997) show for an Australian scheme, that most people do not understand the complexities of points accumulation and redemption. Consumer frustration may be high in some schemes where there are barriers (real or perceived) to redemption, impacting on motivations and behaviours (Stauss et al 2005). In the UK, Tesco rebased its scheme after early operations, in the belief that consumers needed to see points accumulate more rapidly and to clarify the relationship between spending and points allocation. They also later abandoned a differential rewards concept on the basis that it was too complicated and "customers couldn't be bothered" (Humby et al 2003).

Effort has to be expended in redemption. Kivetz and Simonsen (2002a) define effort as a combination of amount of spend and the type of scheme i.e. does it involve the consumers in having to send off for, or otherwise collect, vouchers or final rewards etc. The perception of effort required to reach desired outcomes is also mediated by the 'medium' (e.g. loyalty points) itself. Hsee et al (2003) show experimentally that consumers take an unbalanced view between effort and points accumulation and points accumulation and outcome attainment. Loyalty scheme members have to collect points to gain future rewards. There is in many schemes a delay between collection and redemption, sometimes associated with a points threshold or other criteria. Dowling and Uncles (1997) suggest that delayed rewards are less



successful in producing activity and loyalty (see also Zhang et al 2000). This could be due both to the time taken to accumulate sufficient points to spend and the ease (or not) of actually spending these points. This gives rise to questions over the divisibility of reward spending and the flexibility to attain rewards by using combined currencies (Nunes and Drèze 2006).

Soman (1998) shows how redemption rates for mail-in rebates and category destination retail programs are low (29-30%) and ascribes this to the delay in receiving rewards and the effort involved (see also Drèze and Hoch 1998). He suggests that redemption (in this case a delayed incentive in the form of a mail-in rebate) is low because of the interaction of time, value and effort. Four reasons are identified that impact such rates. First, 'visceral' issues crowd out the activities needed to successfully accomplish redemption. Secondly, people procrastinate and either do not make the effort or time runs out. Thirdly, people tend to be over-confident about their future actions.<sup>2</sup> Finally, time improves consumers' views of discounted gains versus discounted losses, in that losses are discounted later. In essence, consumers tend to be 'bullish' about future redemption, but 'things' get in the way. Individual differences in general behaviour and perceptions of the scheme and its reward/effort balance will thus likely feed into variations in redemption behaviour and involvement.

### *Redemption Products*

Redemption involves 'spending' points to obtain some product or service. In all schemes a degree of consumer choice exists over when and on what to spend the 'points', although there is considerable variability amongst schemes over the availability and type of rewards and how they are obtained.

The more effort that has to be put in to achieve a reward, the more likely it is that the points will be spent on a luxury and not a necessity item (if available) and thus the greater involvement in, or attachment to the scheme (Kivetz and Simonsen 2002a). It is presumed that 'luxuries' as redemptive rewards are more conducive to ongoing participation in the scheme and thus engender stronger feelings towards the scheme (affective involvement). Nunes and Drèze (2006) suggest (though provide no evidence) that in the Nectar scheme in the UK members collected more points in the month immediately following a redemption and that this effect was greater when the points were redeemed for a hedonic reward. Redemption patterns may well vary both by perceptions of effort, actual effort needed, other characteristics associated with personal situations, needs and wants and the reward to be obtained.

Arkes *et al* (1994) show that windfall gains are more likely to be spent on luxury items or non-necessity items (hedonic purchases). What comprises an hedonic or an utilitarian purchase is however often context and individual specific (Dhar and Westenbroch 2000). Arkes *et al* (1994) argue that the source of monetary gain does affect consumption (see also Heilman *et al* 2002). Windfalls may be seen as an opportunity to obtain 'guilt-free luxuries' (Kivetz and Simonsen 2002b). If loyalty scheme points are perceived as a windfall, then the products or services 'purchased' may well be more likely to be luxuries. Similarly, O'Curry and Strahilevitz (2000) suggest that the lower the perceived probability of acquisition, then the greater the likelihood of an hedonic product choice. This is due to the combination of the situation, mental resources including mood and degrees of impulsiveness. Consumers may therefore see loyalty points as an opportunity to move away from the humdrum and to reward themselves (or others) through luxury 'purchase' i.e. hedonic products, and/or self-gifts. Retailers may view such behaviours as developing particular forms of involvement and perhaps more emotional or affective relationships, between consumers and themselves.

Points may be redeemed for items for personal use (self-gifts) or they could be used to obtain gifts for others. Mick and DeMoss (1990) point to the vital importance of context in self-gifts, as they are used to satisfy a variety of psychological needs and behavioural conditions. Self-gifts do not necessarily involve obviously hedonic items. Women apparently have a higher propensity for self-gift giving than men (Mick et al 1992).

Humby et al (2003) show how these issues interact:

“To interest customers in the vouchers, Tesco knows it has to motivate its shoppers to want to spend them. That might mean simply substituting money they would have spent anyway with vouchers... Better though to give them something more exciting to spend their vouchers on... Instead of spending your Clubcard vouchers to put towards your grocery shopping at Tesco, you could save them up for a special treat or trip for the family... Customers could choose from a range of airlines, attractions, holiday companies, hotel chains, restaurants, sports venues and cinemas” (p214-6).

### *Research Questions*

This literature review suggests that detailed academic analysis of redemption behaviour is relatively scarce. It supports the idea of different forms of redemption behaviour (including non-redemption) in retail loyalty schemes. These differences may be related both to operational and psychological aspects; e.g. scheme design and operation, consumer requirements, perceptions of and involvement in the scheme, perceptions of the retailer and the consumer's situation. The literature highlights the issue of non-redemption and gives some indication of variance in how offers may be viewed and valued by consumers. However the literature does not provide sufficient answers to basic research questions on real-world redemption behaviour:

- a) What does actual redemption behaviour look like i.e. what are the different characteristics of redemption and non-redemption activities?
- b) Can a taxonomy of redemption behaviour be developed?

c) How can this taxonomy of redemption behaviour be explained?

### **Methodology**

In order to answer these research questions, data on purchases and redemption behaviour are required (questions one and two) as well as data on attitudes to schemes, redemption and redemption behaviours (question three). Two data sets are thus utilised here. The same retail scheme is considered across both data sets to reduce variability.

The retail scheme is operated by one of the UK's leading retailers. They retail general merchandise with an emphasis on health and beauty and the provision of services. The retailer trades particularly in cosmetics, snack food, medicines, toiletries and grooming products, household items and small gifts. It has over 1500 retail shops across the UK and achieves sales of c£4.7bn per annum. The stores are primarily high street locations, which attract a considerable proportion of the UK's population each week, with the consumer base and thus cardholders being overwhelmingly female (over 90%). The loyalty scheme is long established, has almost 15 million cardholders and consumers use their cards on sales comprising over 70% of the retailer's revenue (source: company annual report).

The scheme is a 'smart' or chip based card scheme with points dynamically accrued or redeemed at the tills in each store. The value of points accumulation and redemption are not important here, but from a consumer perspective the scheme is easy to understand and use and there is high divisibility in terms of redemption possibilities. If a consumer purchases a product at the store, then at the point of transaction before they pay and accumulate additional points, they can opt to redeem existing points or pay in cash. The points redeemed are associated with particular products at the checkout, unlike in other money-off voucher

schemes. In essence therefore consumers are continuously deciding whether or not to spend accumulated points on the goods purchased, be they necessities or luxuries, planned or impulse purchases. Operational constraints on redemption are minimised in this scheme.

The first data set is drawn from real-world recorded behaviour<sup>3</sup> and consists of the loyalty card records of 254 single women, aged 18-35 (this being the core segment for this retailer) for a 104 week period (running from September 1998 to September 2000)<sup>4</sup>. The records were drawn (using random sampling from the identified segment) from the database of 'active' cardholders. They are not restricted to one store or one region of the United Kingdom. The retailer to satisfy data regulations and privacy concerns, anonymised this data set and removed personal identifiers or descriptors. Whilst a necessary and understandable step for confidentiality reasons, this limits the ability to combine these data with demographic, geodemographic and other personal dimensions.

The data set consists of eight variables and details all purchases made with the retailer when the loyalty card was used. The loyalty card number and the date of transaction are identified on each case. A transaction number is also recorded which links products purchased at the same time (i.e. till visit). The volume of any individual item purchased in one transaction is available, as is the total spend on that item at that transaction. Each case also has an item descriptor and a product merchandise group allocated by the company. Finally, the points adjustment per transaction for the loyalty card scheme for each till visit is also available. This points adjustment allows examination of redemption, as it captures how many points were collected and/or redeemed, for what value and for what product(s) and on what date.

Ideally, the second data set would have been drawn from consumers whose purchase records had been available in the first data set. However the retailer was not in a position to allow access to the consumers due to data protection issues. Therefore, a qualitative data set had to be derived separately at a later date.

The second data set consists of transcripts of twenty qualitative thematic interviews with women primarily aged 18-35 undertaken in Spring 2004. Some purchases with this retailer could involve sensitive products which could have intensely personal meanings (Smith and Sparks 2003, 2004) and thus a female interviewer was deemed to be more suitable<sup>5</sup>. Each interview lasted approximately 30 minutes. An interview guide was used to structure the interview, using open-ended questions arising from the literature review about the scheme, redemption motivations and perceptions. Recruitment to the interviews was initially through personal contacts and a subsequent snowball technique, based on individuals known to have redeemed points in this scheme. For all the interviews permission and informed consent was given for them to be recorded and personal anonymity was assured. After recording, the interviews were transcribed. An initial coding was developed by the interviewer. A separate coding was then undertaken by one of the authors and compared with the interviewer's notes and coding. A finalised coding scheme was then adopted. The second author then compared the coding scheme to the transcripts to ensure coverage and consistency.

## **Analysis and Findings**

### *Redemption Behaviours*

In the quantitative data set there are 46797 product transactions in the two-year period.

Individuals vary between purchasing only 2 products in the two-year period to one individual who purchased 1551 products. Other dimensions of frequency of visit, accumulated spend and

different products purchased show considerable variation amongst the sample. Of these 46797 product transactions, 2101 involved redemptions (a rate of 4.5% of all product transactions). However some product transactions involve the purchase of (or redemption for) multiple items of the same product and others involve individual items that are the component parts of a single transaction. When the 2101 product transactions are translated into discrete redemption events, the number reduces to 1202. In these 1202 redemption events, 2294 product items are obtained at a total redemptive cost (i.e. the retail selling price of the items obtained by redemption) of £8719. On average 1.91 products are obtained via redemption at each event, though on one occasion an individual obtained 23 items. The mean redemptive cost per visit was £7.25, and per item was £5.24. The most expensive item obtained via redemption cost £89.99 and the cheapest, 20p.

[Table 1 about here]

These redemption events are carried out by 209 different individuals in the two year period i.e. a participation rate of 82.3% of our sample of cardholders. Conversely 45 (17.7%) of the cardholders either do not collect enough points to redeem or choose not to redeem any points during this two-year period. Table 1 provides a comparison of these non-redeemers (i.e. those that do not have a single redemption event in the two-year time scale) with the redeemers. On average the non-redeemers visit the stores less often, spend less and purchase a fewer number of products in total. Their average spend per visit is lower, but this does not derive from buying cheaper products, but rather from buying fewer products per visit.

[Figures 1, 2 and 3 about here]

Figure 1 provides details of the number of redemption events by cardholder. The mean number of redemption events per cardholder in the two year period is 5.75 (4.7 if the zero redemptions are included). The modal class is zero, but there are some individuals who make a substantial number of redemptions. The maximum was 30, but 5 individuals have over 20 redemption events apiece, accounting for 10% of all redemptions. In terms of timing of redemptions there is little pattern, except that December tends to have a higher number and value of redemption events, implying gift-giving.

Figure 2 plots the number of redemption events (including non-redeemers) against the total spent in the stores over the two-year period (Pearson's  $R=0.558$ ,  $p=0.000$ ). Differing patterns of redemption are seen, although the majority can be identified as being relatively infrequent, comparatively low spending redeemers. Figure 2 also suggests that there could be different elements of non-redemption. Some non-redeemers effectively have nothing to redeem, being very infrequent and low spending visitors to the stores. Others have points that could have been redeemed, but they have not done so. Non-redeemers in Figure 2 in some instances have more points (higher spend) than those who have redeemed their points.

Figure 3 (which excludes non-redeemers) examines average redemption spend per product and the number of redemption events (Pearson's  $R=-0.320$ ,  $p=0.000$ ). The majority of consumers redeem relatively infrequently and do not spend many points on average. The variation in the figure is however of interest. Different redemption behaviors are suggested by the figure, with some consumers redeeming often for low cost items, but others redeeming infrequently for high cost items. Most redeemers however appear to be somewhere in the 'middle' of these plots.



In terms of individual items, the products most often obtained by redemption are comparatively inexpensive food and drink retailer brand items. These would form part of a typical basket for many purchasers in the stores (particularly lunchtime shoppers). It is hard to see these as hedonic purchases, but this might depend on the personal circumstances, as the price of a product obtained is not directly related to any hedonic or utilitarian aspects i.e. a 'treat' could be a low price product such as a bar of chocolate. By broad merchandise group however, a different pattern emerges, though this is affected by the classification system used by the retailer. Whilst the food and drink products remain prevalent, a more personal use merchandise product category (face cream and face care) is the main focus of redemption behaviour. The perception of these products as utilitarian or hedonic may also vary, depending on circumstances.

The most expensive single items obtained are distinct. These are clearly high value and higher status products. They include a camera, kitchen items (knives and a saucepan set), a massage/pain relief system and perfume. Some of these are certainly capable of being seen as hedonic items. Whether they are personal gifts or gifts for others is beyond the capabilities of this analysis. The retailer certainly markets the use of collected points for personal 'pampering' purposes, with its leaflets stating it is 'time for a treat' and pointing to 'the world of indulgence in-store'.

The data set also allows exploration of individual patterns of redemption behaviour. Whilst these are in the main beyond the scope of this paper, some examples highlight the variations in behaviour. Perhaps the most single-minded redemption example is that of the individual who has eight redemption events spread over the two-year period (i.e. approximately every three months), but 'purchases' the same item (a hair care product at £3.75) on each occasion.

Another individual has only two redemption visits, both just before each Christmas in the time period and obtains a small personal gift on each occasion. This behaviour is not one of stocking up for Christmas but would appear to be related to personal treats around the festivities.

More typical of a mixture of motivations and behaviour perhaps is the individual who varies her redemptions from 'common' food and drink on a number of occasions through to obvious gifts such as after shave and a body massager. On one occasion both an after shave 'gift' and a utilitarian packet of crisps and a chocolate bar with a sandwich are purchased using the stored points. It would seem that the ease of use of this scheme allows such variation in behaviour and motivations to occur readily, possibly hinting at the key importance of mood and other states (e.g. financial) on behaviour.

#### *A Taxonomy of Redemptive Behavior*

The second research question focused on the development of a taxonomy of this redemption behaviour. A cluster analysis has been used here to derive the taxonomy. As far as possible, given the constraints of the data, the protocols discussed by Kethcen and Shook (1996) have been followed. As previously discussed one dimension to measure customer value and one to account for involvement in the scheme (i.e. redemption) were required. The selection of variables was therefore deductive in the first instance. However an inductive, exploratory method to determine which of the 'value' and 'involvement' variables best discriminated in the analysis was also used. There was obvious potential for multi-collinearity amongst the variables in the value set (total spend, mean spend per visit, no of visits) and the variables in the involvement set (overall redemption spend, average redemption spend per product per redemption event, total number of redemption events). It seemed logical therefore to only

have one of each (i.e. two dimensions/variables). The solution below demonstrates that value and involvement are not collinear. This was followed by the determination of which variables from each set provided the most robust clusters. Robustness was judged on cluster membership and visual interpretation of scatter plots. The variables were not standardised, as the need for this is less acute for a two variable solution. A standard non-hierarchical K-means algorithm cluster solution based on iterative clustering was deployed (in order to lessen the impact of the evident outliers). Through exploration it was clear that the data could only sustain a three cluster solution (any more clusters and membership was negligible in the fourth). Reliability of the clusters was checked using a split sample method. The sample was split randomly in to two halves and re-clustered using the same variables and number of clusters. The same clusters arose each time in similar proportions. The clusters were also tested through the exclusion of those who do not redeem at all. Again it appeared robust.

[Table 2 about here]

Convergence was achieved after nine iterations. The discriminating variables, final clusters, cluster centres and cluster membership are shown in Table 2. Total spend and average redemption value per product per redemption event gave the most clear clusters and robust solution. Cluster 1 is characterised as medium average redemption spend per product per redemption event with high total spend. Cluster 2 is characterised by low redemption spend per product per redemption event and low total spend. Cluster 3 is populated by a high average value of redemption spend per product per redemption event and medium total spend. *A priori* one might have expected a strong correlation between total spend and redemption spend per product per redemption event. However it seems that the customers who are probably of the greatest value to the retailer (the higher spenders) tend to redeem points on

medium value items (though they do it more frequently than cluster 3). Cluster 3 members tend to save up their points for bigger items (thus redeem points less often). It is also clear that the majority of consumers spend relatively little (although still quite substantial amounts per annum on average given that this is not a grocery retailer) and redeem on small value items. The identification of this non-linear relationship is an important finding.

### *Explaining the Taxonomy*

The qualitative interviews of the second data set are used to illustrate redemptive behaviour in this scheme and to help understand the quantitative cluster solutions. The most commonly stated motivation amongst the respondents was that of accumulating points or value to ‘save up’ for a larger purchase or reward. This is characteristic of Cluster 3. This tended to be presented as highly planned behaviour with the saving of points being towards some goal:

I don't spend my points on little things. I like to build them up and buy myself things. I like buying stuff in store because I get my points, but I don't use my points until I have saved enough to get something for myself like my perfume (Respondent 5).

Whilst many exhibited attempts at saving towards some stated or unstated planned redemption goal, they often found that their circumstances or other events conspired to deflect them from this goal. This would be characteristic of Cluster 1. The tensions within individuals between planned and impulse behaviour and between saving and spending points were noted:

I redeem when I have about £30 on my card. I wait till I have a lot so I can buy a bottle of perfume, which is much better than spending on little things. I don't specifically save for anything but I would rather I spent it on something of value like perfume. I think that it is of value because it is more expensive than the things I normally buy... I like getting something big and expensive like a valuable thing, cause it's free, like a free bottle of perfume... I have only bought perfume once to be honest - that is what I really want to save up for. But sometimes when I get to about £9 or £12 and I am really skint ... and I have to get photos developed or something then the women at the counter will be like do you want to redeem on this and I will be like yeah. And I will end up with nothing and be back to zero... I bought some makeup the other

day, which I justified buying because it was free. But I am working up towards that bottle of perfume (Respondent 13).

Respondents view the act of spending points as being focused on the notion of rewarding or treating themselves, a behaviour that can be applied to Clusters 1 and 3:

I suppose I only buy treats specifically with my points. You know things I would not normally buy, like intensive conditioner sachets and little treats that I would not normally buy but I would spend my points on. I suppose you could call them luxury items, things I have not tried before and look good (Respondent 16).

Self-gifting is a recurrent theme. Some of the self-gifts are products that would be bought normally but are bought at a particular time (Christmas) as a personal reward, though there is also a sense of not spending “real money”:

I normally redeem twice a year, once at Christmas and once at the holiday season. I do this because that is probably when I know I’m specifically going to be spending a lot of money. I know I have stuff to buy where as normally it’s just my everyday things that are sort of accounted for any way. When I go on my holidays I have lots of suntan cream and stuff for holidays to buy so I feel that it’s good if I can use my points as I have so much to buy it does not feel that bad (Respondent 14).

This self-gifting behaviour is also about experimentation and the use of windfalls for new items (perhaps more risky purchases). It is also about indulgence and mood alteration with common themes being the need for treats or presents to ‘spoil’ themselves. This is often reflected in notions of pleasure. Positive feelings and pleasure need not be product related but can come instead from the actions of spending points, whether because it is a self-reward or from a sense of financial management. To some extent this accords with the retailer’s desire to get consumers to see the store as ‘pampering’ them, but it also reflects the ability of this scheme to act as an electronic purse and to put consumers in control of their redemption:

I check my receipt and am able to decide my self what to buy with my points and because I shop there regular it is a good feeling when you know you can get that little extra and you have earned it. Or it’s even better when you are skint and you don’t need to fork out as much for your normal shop (Respondent 16).

Such an ability to divide the points in this scheme to obtain varying rewards seems to be a key driver of the different behaviours in Clusters 1 and 3. Cluster 2 appears more straightforward with general redemption behaviour exhibited.

The perceived impact of the reward redemption behaviour varies according to the respondents. For some the feelings engendered are of reward and warmth, often associated with the idea that they have gained 'something for nothing', though this may be more about reflecting their own success as a shopper rather than directly transferring these feelings to the retailer. There is a more nuanced assessment of the reward and redemption mechanism in some cases, with the realisation that you have to spend in order to accrue and then use points. Whilst a number of respondents felt that they were getting something for nothing when they redeemed, others recognised that it only felt like that and that they had paid for the products by their previous purchase behaviour. These feelings however are translated in some cases into perceptions of loyalty towards the company:

You are loyal to the company. I feel you are rewarded for choosing to spend in the company. You get your points which you can choose to spend on other products which I like ... I think it is pretty good as you can buy whatever you like with it where as some place will give you money off vouchers, or vouchers for specific products. Where as here you can spend how and when you feel like it (Respondent 6).

If I have not got a lot of money that will influence me. I like to build them up though. But if it is getting near to the end of the month then I will use the points to buy something if I have got quite a lot of points on it. I am influenced to spend money when they have an event on like the triple points, I think I may as well go and get the stuff I need as I am getting triple points for it (Respondent 12).

The act of redemption itself would appear to be important in developing positive feelings, though the freedom to choose on what to spend the points appears also to be of value. Some do recognise that the scheme and the rewards they obtain sway their behaviours:

I know that Competition B is cheaper ... But if it is a thing I know I need I will go to Company A, because I know I will get my points too (Respondent 10).

I am tempted by cheapness, but the pull of the points, I know I will get something back ... I know that other shops can be cheaper but the fact that I get points makes me realise I will get something back for spending. The price difference is not that great not on the stuff I buy like deodorant and every day stuff (Respondent 13).

There is rationalisation of this behaviour in terms of relative price differences. This behaviour is predicated not only on the collection of points, but the goal of using the points and as above obtaining some product or reward. The reward (or something for nothing) that can be achieved at the end may be used as justification for the higher prices paid, but an alternative justification is the ability to obtain a personal gift. Some consumers recognised this and noted that the ability to use points to obtain gifts did influence them to return to the store.

Redemption appears thus to enhance visit frequency for some consumers, and to drive future behaviours.

### **Conclusions and Implications**

This paper, after pointing to a comparative dearth of studies on redemption in retail loyalty schemes addressed three questions; what does redemption behaviour look like, can a taxonomy of such behaviour be developed and can we explain this taxonomy?

Almost 83% of the quantitative sample had redeemed some points for some products over the two year period. This is higher than previous studies have suggested. Non-redeemers, compared to redeemers, visited the stores less often and spent less, suggesting lower involvement with, and lower value to, the retailer. Individual redemption behaviours and the use of points to obtain different products indicated different aspects of redemption behaviour,

implying that redemption would appear to have different meanings to different consumers or even the same consumer at different times.

Our taxonomy of redemption behaviour derived from a three cluster solution on actual redemption and spending behaviour. The numerically larger cluster (2) comprised cardholders with low total spend and low average product redemption value. The other two clusters combined high total spend and medium redemption spend (cluster 1) and the reverse (cluster 3). Cluster 2 is readily explained by comparatively low involvement in the scheme and is caused by and evidenced by members' lower levels of patronage. Cluster 1 suggests that the most valuable customers are balancing the value of redemption events against frequency of events; they seem to be highly engaged in the scheme and maximize this by trading off value and frequency, based on a variety of reasons and drivers. Cluster 3 seems to describe a group who use the scheme in a more traditional way to 'harvest' high value items, involving a form of 'saving' for high value items in a manner consistent with some of the literature on windfall gains (e.g. Arkes et al 1994). The fact that the relationship here is non-linear is counter-intuitive in some respects and as such represents an important finding, i.e. high spenders do not tend to serially redeem the highest value items. Qualitative analysis demonstrated that the consumers used the aspects of the scheme design to manufacture their own redemption behaviour. Planned behavior focused on hedonic items tended to be interrupted by impulse redemption on items both for utilitarian and hedonic purposes. The mood of the consumer was important both before and after redemption. Aspects of positive feelings towards the retailer were encouraged by the scheme and redemption and there was some evidence of behaviour change to enhance collection of points and thus rewards.



This paper has provided a contribution by describing real-world redemption behaviour, developing a taxonomy of this redemption behaviour and using qualitative research to understand and explain the taxonomy structure. The scheme design in this case makes the scheme easy to use and requires little effort from the consumer for redemption to occur. As a smart-card scheme it encourages dynamic redemption, in the sense that points are always available on the card for use. This potentially makes redemption for small amounts easier, thus increasing redemption participation rates and lowering the value of goods obtained. As a consequence it becomes more difficult to 'save up' for luxury higher price items and easier to obtain some 'lesser' instant gratification. This might explain why our findings run counter to the assertions of Arkes et al (1994) and O'Curry and Strahilovitz (2000). However as Dhar and Westenbroch (2000) note, and as is confirmed here, even low volume purchases can have significant hedonic value. This though does question why non-redemption exists.

Managerially this research has a number of implications. Retailers and other organizations are keen to focus on consumer loyalty and concepts such as lifetime value. Management often perceives this as repeat purchase or patronage, with ambitions towards relationship building and emotional involvement. The data here suggest that for some consumers the redemption of rewards is a significant component of this repeat behaviour and probably increases emotional involvement. For others (the non-redeemers) redemption is not important, though it is not clear why this is the case (e.g. scheme design, motivation, effort etc). Reflecting the literature discussed earlier, this research shows that the loyalty scheme or card itself does not generate loyalty, but rather loyalty is generated by the retailers' behaviours in operational and other terms.

The data suggest a high level of redemption participation (and higher than noted in the limited data from other schemes and research). This may be an enhanced figure due to this retailer's scheme design and by the sample drawn (as 'live' cardholders, those that have dropped out of the scheme are excluded), but it provides a benchmark for other scheme managers. These high levels of redemption include components of gift behaviour and hedonic redemption, as suggested by the literature (Mick and DeMoss 1990). On the other hand considerable redemption for everyday items is also noted. In either case, the scheme itself is allowing consumer choice and thus extends consumers' positive perceptions of the retailer. Providing easily understood and achievable options for consumers to exercise choice would seem to be a sound scheme design decision, likely to enhance involvement.

The clusters from the taxonomy indicate that most consumers in this sample are involved in a limited way with the scheme and redemption. Managerially this is important as it indicates that the scheme may be operating to make consumers 'stick' with the retailer rather than exhibiting more promiscuous behaviour, but it may also reflect 'routine' behaviour rather than involvement. Management need to understand the ways in which reward redemption helps reinforce, maintain and extend behaviours. Some consumers spend more and redeem for different products (high value and sometimes hedonic) from the 'main' cluster. As such they should act as a focus for management attention, particularly in terms of their value and profitability over time. Non-redeemers also need to be a focus in order to understand the lack of development of involvement.

### **Limitations and Future Research Directions**

As with any study, there are a number of limitations to bear in mind. Only one retail loyalty scheme has been included in this study and some of the operational characteristics of this

scheme are more advanced than other loyalty schemes. The membership of this scheme and the sample in this study are female. Expanding the study to cover other schemes with different design features, membership patterns and redemption opportunities would be appropriate. The sample sizes for both quantitative and qualitative elements of this study were limited and could be increased to confirm the findings. Whilst required for data protection, anonymisation of the quantitative data precluded expansion of the data set into additional geodemographic and other variables. Ways around this could be found in future and could be combined with a direct relationship between the data collection elements of a future study. Combining data sets in this way would allow for the research directions identified through this study to be explored.

Further research is clearly necessary. First, similar and replicative work on other schemes and contexts will extend understanding of the types of redemption behaviour recorded and assess the validity of the taxonomy. Studies could be drawn from both within and beyond the retail sector. Secondly, further investigation of the psychological and motivational aspects of consumer redemptive behaviour and involvement will confirm reasons why consumers redeem their points when and in the way that they do and could probe the issues of non-redeemers. By focusing this research on actual redemptive behaviour a bias towards intentions, which has been prevalent in loyalty and coupon research, will be avoided. Finally, redemption behaviour analyzed by different dimensions e.g. type of rewards, locations and sectors of schemes, scheme design including partner companies and consumer behaviour over time and amongst multiple schemes, could be informative.

This further research into redemption is important. Non-redemption and differing redemption behaviours are managerially important in not only assessing the extent to which schemes

work and investments can be justified, but also in developing relationships with consumers. Our evidence of differing redemptive behaviours and motivations signifies different levels of involvement and emotional ties to the scheme and the retailer. The increasing extension of scheme rewards towards more clearly hedonic or aspirational products and services (Humby et al 2003, Capizzi et al 2004, Nunes and Drèxe 2006) and the increased use of ‘combined currencies’ (allowing points and money to be combined in redemption) signifies a move away from purely transactional (money-off) redemption and towards a more nuanced understanding of loyalty development. Management needs to understand redemption behaviour and involvement in all its facets, if ‘loyalty’ is to be understood, and if the valuable and profitable flows of customer spending and data are to be maintained and utilised. It is difficult to see how researchers into loyalty schemes can continue to neglect the most fundamental of management and consumer aspects of the loyalty scheme process, namely reward redemption behaviour.

## Acknowledgements

The authors gratefully acknowledge the provision of data by the retailer (which has asked to remain anonymous). We also thank our four referees and the associate editor for their very supportive and helpful comments.

## Notes:

- 1: Is non-redemption actually beneficial? One argument is that non-redemption provides an inherent profitability for the retailer, through the non-exercising of (sometimes time-limited) liabilities. Others argue that the act of redemption encourages both additional sales (rather than replacement spending) and a stronger ‘bond’ with the retailer, leading to longer-term engagement (or loyalty). Further benefits may arise from data capture and use (Humby et al 2003).
- 2: This raises issues about the usefulness of coupon (or loyalty scheme) redemption studies based on future intentions or game choices rather than on actual behaviour or experiments in a practical setting (see also O’Curry and Strahilevitz 2000 in the context of windfall gains).
- 3: The authors would like to thank the anonymous retailer for providing the data set. A number of earlier approaches to other retailers were rebuffed, perhaps reinforcing earlier comments about the potential difficulties of researching this topic.
- 4: This sample was agreed after discussion with the retailer. It is acceptable for the analyses undertaken here, though is clearly a small fraction of their total cardholder database. A larger sample would have been subject to a similar set of analyses.
- 5: The authors would like to thank Jemma Forgan who undertook the interviewing and initial coding.

## References

- Allaway A.W. Gooner R.M. Berkowitz D. and Davis L. (2006) 'Deriving and Exploring Behaviour Segments within a Retail Loyalty Card Program'. *European Journal of Marketing*, 40, 1317-1339.
- Arkes H.R. Joyner C.A. and Pezzo M.V. (1994) 'The Psychology of Windfall Gains'. *Organizational Behavior and Human Decision Processes*, 59, 331-347.
- Benavent C. Crié D. and Meyer-Waarden L. (2000) 'Analysis of the Efficiency of Loyalty Programs'. Paper presented at the 3<sup>rd</sup> AFM French-German Conference about Retailing and Distribution in Europe, St Malo, June, (downloaded from <http://christophe.benavent.free.fr/publications/pub.htm> on 13<sup>th</sup> January 2003).
- Bolton R.N. Kannan P.K. and Bramlett M.D. (2000) 'Implications of Loyalty Program Membership and Service Experiences for Customer Retention and Value'. *Journal of the Academy of Marketing Science*, 28, 95-108.
- Capizzi M. Ferguson R. and Cuthbertson R. (2004) 'Loyalty Trends for the 21<sup>st</sup> Century'. *Journal of Targeting, Measurement and Analysis for Marketing*, 12, 199-212.
- Conneran E. and Lawlor K. (1997) 'Consumer Perceptions of the Superclub Loyalty Scheme and its Influence on the Store Choice Decision'. *Journal of Targeting, Measurement and Analysis for Marketing*, 5, 210-220.
- Dhar R. and Wertenbroch K. (2000) 'Consumer Choice Between Hedonic and Utilitarian Goods'. *Journal of Marketing Research*, XXXVII, 60-71.
- Dowling G. R. and Uncles M. (1997) 'Do Customer Loyalty Programs Really Work?' *Sloan Management Review*, 38, 4, 71-82.
- Drèze X. and Hoch S.J. (1998) 'Exploiting the Installed Base Using Cross-Merchandising and Category Destination Programs'. *International Journal of Research in Marketing*, 15, 459-471.
- East R. Hogg A. and Lomax W. (1998) 'The Future of Retail Loyalty Schemes'. *Journal of Targeting, Measurement and Analysis for Marketing*, 7,1, 11-21.
- Gomez B.G. Arranz A.G. and Cillan J.G. (2006) 'The Role of Loyalty Programs in Behavioural and Affective Loyalty'. *Journal of Consumer Marketing*, 23, 387-296.
- Hart S. Smith A. Sparks L. and Tzokas N. (1999) 'Are Loyalty Schemes a Manifestation of Relationship Marketing?' *Journal of Marketing Management*, 15, 541-562.
- Heilman C.M. Nakamoto K. and Rao A.G. (2002) 'Pleasant Surprises: consumer responses to unexpected in-store coupons'. *Journal of Marketing Research*, XXXIX, 242-252.
- Hsee C.K. Yu F. Zhang J. and Zhang Y. (2003) 'Medium Maximization'. *Journal of Consumer Research*, 30, 1-14.

- Humby C., Hunt T and Phillips T. (2003) *Scoring Points: how Tesco is winning customer loyalty*. Kogan Page: London
- Lewis M. (2004) 'The Influence of Loyalty Programs and Short-Term Promotions on Customer Retention'. *Journal of Marketing Research*, XLI, 281-292.
- Ketchen D. and Shook C. (1996) 'The Application of Cluster Analysis in Strategic Management Research: An Analysis and Critique'. *Strategic Management Journal*, 17, 441-458.
- Kivetz R. and Simonson I. (2002a) 'Earning the Right to Indulge: effort as a determinant of customer preferences towards frequency program rewards'. *Journal of Marketing Research*, XXXIX, 155-170.
- Kivetz R. and Simonson I. (2002b) 'Self-Control for the Righteous: toward a theory of precommitment to indulgence'. *Journal of Consumer Research*, 29, 199-217.
- Kivetz R. Urminsky O. and Zheng Y. (2006) 'The Goal-Gradient Hypothesis Resurrected: purchase acceleration, illusory goal progress and customer retention'. *Journal of Marketing Research*, XLIII, 39-58.
- Kumar V. and Shah D. (2004) 'Building and Sustaining Profitable Customer Loyalty for the 21<sup>st</sup> century'. *Journal of Retailing*, 80, 317-330.
- Mauri C. (2003) 'Card Loyalty. A new emerging issue in grocery retailing'. *Journal of Retailing and Consumer Services*, 10, 1, 13-25
- Meyer-Waarden L. (2007) 'The Effects of Loyalty Programs on Customer Lifetime Duration and Share of Wallet'. *Journal of Retailing*, 83, 223-236.
- Meyer-Waarden L. and Benavent C. (2006) 'The Impact of Loyalty Programmes on Repeat Purchase Behaviour'. *Journal of Marketing Management*, 22, 61-88.
- Mick D.G. and DeMoss M. (1990) 'Self-Gifts: phenomenological insights from four contexts'. *Journal of Consumer Research*, 17, 3, 322-332.
- Mick D.G. DeMoss M. and Faber R.J. (1992) 'A Projective Study of Motivations and Meanings of Self-Gifts: Implications for Retail Management.' *Journal of Retailing*, 68, 122-145.
- NCH Marketing Services. (2002) *Worldwide Coupon Distribution and Redemption Trends*. NCH Marketing Services, Lincolnshire IL.
- Nunes J.C. and Drèze X. (2006) 'Your Loyalty Program is Betraying You'. *Harvard Business Review*, 84, 4, 124-131.
- O'Brien L. and Jones C. (1995) 'Do Rewards Really Create Loyalty?' *Harvard Business Review*, 73, 3, 75-82.

- O'Curry S. and Strahilevitz M. (2001) 'Probability and Mode of Acquisition Effects on Choices Between Hedonic and Utilitarian Options'. *Marketing Letters*, 12, 1, 37-49.
- O'Malley L. (1998) 'Can Loyalty Schemes Really Build Loyalty?' *Marketing Intelligence and Planning*, 16, 1, 47-55.
- Sharp B. and Sharp A. (1997) 'Loyalty Programs and their Impact on Repeat-Purchase Loyalty Patterns'. *International Journal of Research in Marketing*, 14, 473-486.
- Shugan S.M. (2005) 'Brand Loyalty Programs: are they shams?' *Marketing Science*, 24, 185-193.
- Smith A. and Sparks L. (2003) "'Who Cares if They Know What Kind of Toilet Paper I use?" Loyalty schemes, consumer privacy and retailer knowledge' *Paper presented at the Academy of Marketing Conference, Aston, July*.
- Smith A. and Sparks L. (2004) 'All About Eve?' *Journal of Marketing Management*, 20, 363-385.
- Smith A. Sparks L. Hart S. and Tzokas N. (2003) 'Retail Loyalty Schemes: results from a consumer diary study'. *Journal of Retailing and Consumer Services*, 10, 109-119.
- Soman D. (1998) 'The Illusion of Delayed Incentives: evaluating future effort-money transactions'. *Journal of Marketing Research*, XXXV, 427-437.
- Stauss B. Schmidt M and Schoeler A. (2005) 'Customer Frustration in Loyalty Programs'. *International Journal of Service Industry Management*, 16, 229-252.
- Taylor G.A. (2001) 'Coupon Response in Services'. *Journal of Retailing*, 77,139-151.
- Taylor G.A. and Neslin S. (2005) 'The Current and Future Sales Impact of a Retail Frequency Reward Program'. *Journal of Retailing*, 81, 293-305.
- Uncles M. (1994) 'Do You or Your Customers Need a Loyalty Scheme?' *Journal of Targeting, Measurement and Analysis for Marketing*, 2, 335-349.
- Uncles M. Dowling G, and Hammond K. (2003) 'Customer Loyalty and Customer Loyalty Programmes' *Journal of Consumer Marketing*, 20, 4, 294-316.
- Venkatesan R. and Kumar V. (2004) 'A Customer Lifetime Value Framework for Customer Selection and Resource Allocation Strategy'. *Journal of Marketing*, 68, 106-125.
- Worthington S. (2000) 'A Classic Example of a Misnomer: the loyalty card'. *Journal of Targeting, Measurement and Analysis for Marketing*, 8, 3, 222-234.
- Wright C. and Sparks L. (1999) 'Loyalty Saturation in Retailing: exploring the end of retail loyalty cards?' *International Journal of Retail Distribution Management*, 27, 429-439.
- Zhang Z.J. Krishna A. and Dhar S.K. (2000) 'The Optimal Choice of Promotional Vehicles: front-loaded or rear-loaded incentives?' *Management Science*, 46, 348-362.



**Table 1: A Comparison of Redeemers and Non-Redeemers**

	<b>Redeemers (n=209)</b>	<b>Non-Redeemers (n=45)</b>
<b>Number of Visits:</b>		
Mean	61	19
Std. Dev.	40.6	16.5
<b>Total Spend (£):</b>		
Mean	684.9	176.8
Std. Dev.	475.0	163.2
<b>Number of Products Purchased:</b>		
Mean	239	62
Std. Dev	198.6	62.7
<b>Average Price of Products Purchased (£):</b>		
Mean	3.2	3.3
Std. Dev.	1.0	1.5

**Table 2: Final Cluster Members and Centers**

	<b>Cluster</b>		
	<b>1</b>	<b>2</b>	<b>3</b>
<b>Cluster Members (No. of cases)</b>	43	186	25
<b>Dimension One: Average Redemption Spend per Product per Redemption Event (points)</b>	850	301	2141
<b>Dimension Two: Average Total Spent (£)</b>	1343.10	406.80	707.64

Figure 1: Redemption Events by Cardholders

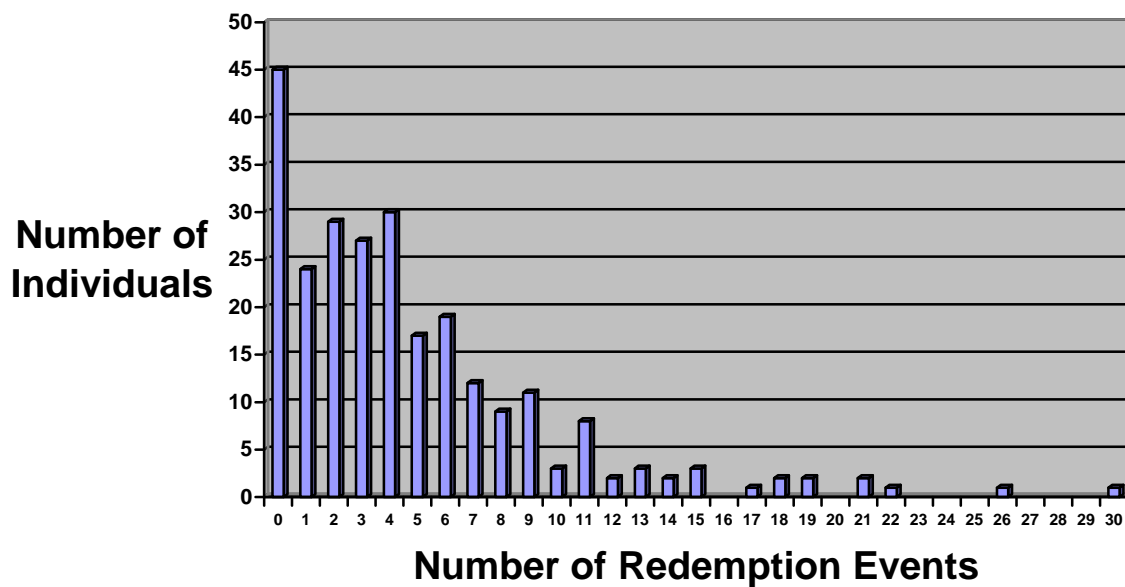


Figure 2: Total Spend and Redemption Events

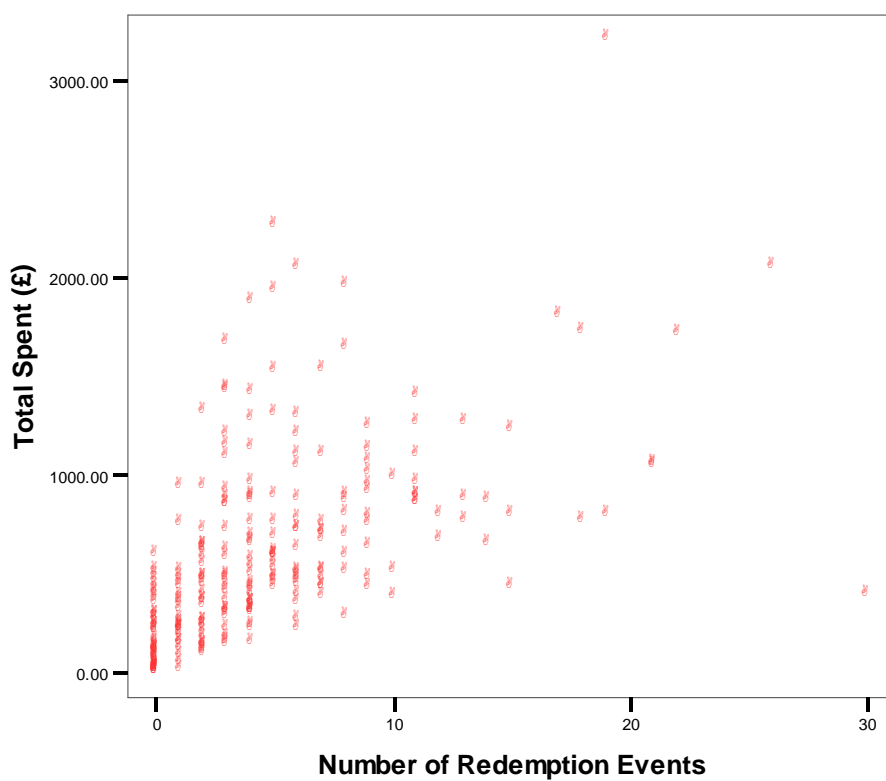


Figure 3: Redemption Product Spending and Redemption Events

