THE EFFECTIVENESS OF CUSTOMER LOYALTY PROGRAMS: A LONGITUDINAL COMPARISON OF THE DEMOGRAPHIC AND CONSUMER BEHAVIOUR PREDICTORS OF SHARE OF WALLET IN THE RETAIL GROCERY SECTOR

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ABSTRACT

One of the pressing issues in marketing is to resolve the debate over the effectiveness of customer loyalty programs. This study adds to this discussion by examining the relative importance of household loyalty program, demographic and consumer behaviour predictors, to share of wallet over time. Based on demographically representative data from 643 Australian households, this study investigates the usage patterns of two of the major Australian retail grocery subscription based loyalty programs. The results demonstrate that ownership of the loyalty card is not a consistent predictor of share of wallet over time. This suggests that some of the more established customer loyalty programs may be negatively influenced by the introduction of competitor loyalty cards and consumer perceptions of the attractiveness of their reward structures.

INTRODUCTION AND LITERATURE REVIEW

The relentless challenge to create, maintain and enhance customer loyalty in today's highly competitive markets has seen many companies re-adopt a customer focus through Customer Relationship Management (CRM) (e.g. Kivetz, 2005; Kivetz & Simonson, 2003; M. D. Uncles, Dowling, & Hammond, 2003). One such CRM tactic gaining popularity is the introduction of customer loyalty programs. These programs represent a loyalty building initiative designed to develop long term customer relationships as opposed to short term marketing strategies to temporarily increase sales (e.g. "Australia's Myer to introduce loyalty card scheme," 2004; Kumar & Reinartz, 2005; M. Uncles & Goh, 2002; M. D. Uncles et al., 2003).

Loyalty programs represent a tool for developing share of wallet (SOW) as they offer a medium to potentially change shopper purchase behaviour. The success of a loyalty program in changing a shopper's purchase behaviour is dependent on its ability to 'create extra loyalty beyond that which is derived from the relative value of the product or service' (Bolton, Kannan, & Bramlett, 2000, p. 95). The creation of extra loyalty encourages the customer to increase the value of their subsequent purchases rather than merely repurchase (Sharp & Sharp, 1997). Hence, by modifying the customer's product repeat purchase behaviour, the company explicitly rewards the customer for consolidating their purchases and reducing their consideration set of acceptable brands (Sharp & Sharp, 1997). Whether a loyalty program alters how a consumer allocates their SOW within their consideration set is a behavioural measure that is attracting increased research attention (e.g. Keiningham, Aksoy, Perkins-Munn, & Vavra, 2005; Leenheer et al., 2007; Meyer-Waarden, 2007; M. D. Uncles et al., 2003), but has revealed mixed results.

Empirical research supporting the positive effect of loyalty programs includes Lal and Bell's (2003) study of a loyalty program for a United States supermarket chain, where the loyalty program was found to be effective in increasing the value of sales in exchange for rewards that were tiered according to the purchase total over a promotional period. Lewis (2004) observed similar reward driven purchasing behaviour: the success of an Internet retailer's loyalty program in motivating customers to increase their

repeat purchase rates differed according to the proximity to a reward threshold and the expiration date for reward redemption. In effect, the probability of further purchases increased as the value of cumulative spending rose and the expiration date for reward redemption approached (Lewis, 2004).

Tempering these positive findings are some indications that loyalty programs may not always be effective. For example, Mägi's (2003) study of loyalty programs within a Swedish town found that the programs had no effect on share of purchases or visits at the customer's main grocery store. However at the associated loyalty card store, the loyalty program's effect was only positive when the customer did not also have a competing store's loyalty card. Mägi (2003) noted that these findings were partly due to the large number of multiple-card holders in the study's sample and that this may have neutralised the effects of competing loyalty programs. Supporting these mixed results for the effect of loyalty programs, Sharp and Sharp (1997, p. 479) did 'not observe the consistent finding of Fly Buys brands showing higher levels of average purchase frequency given their individual levels of penetration'. In addition, Sharp and Sharp (1997, p. 485) found that 'of the six loyalty program brands, only two showed substantial repeat-purchase loyalty deviations and both of these showed this deviation for non-members of the loyalty program as well as members suggesting another causal, perhaps additive, factor'.

In addition to loyalty program characteristics there is also some evidence in the literature that behavioural variables such as the number of visits to a store and consumer demographics such as age, household size and occupation may explain some of the variation in customer loyalty measures (Cunningham, 1956; East, Harris, Willson, & Lomax, 1995; Frank, Green, & Sieber, 1967).

METHODOLOGY

This study analysed empirical data obtained from a leading global commercial market research company. The data is based on the results of a survey issued to a consumer panel of approximately 7,000 Australian households in June 2007. Of these households, 4,405 responses were received which represents a substantial response rate of 62.93%. To minimise the amount of missing data that would have distorted the analysis, households were selected for the longitudinal data set on the basis of whether the household had been a member of the consumer panel for the entire three year study period of 1st July 2004 to 30th June 2007 and had consistently scanned their purchases over the study period. This selection process resulted in the original sample size of 4,405 households being reduced to 643 households as the consumer panel underwent an intensive recruitment phase in late 2006.

The primary focus of this research was to empirically compare over time, the relationship between SOW and the potential household loyalty program, demographic and consumer behaviour predictors of customer loyalty. Two of the major Australian retail grocery loyalty programs were examined and the dependent variable (SOW) was calculated as the percentage of monthly household expenditure spent in each of the participating stores of the respective loyalty program. Multivariate regression analyses were conducted to reveal the main predictors of SOW, over time, after allowing for the effects of all other potential predictors. Given the large sample size in comparison to the number of potential predictors, the stepwise approach was applied to the development of each model to provide the most parsimonious model. Testing of the validity of the model assumptions showed that there was no evidence for lack of model fit.

RESULTS

Table 1 shows the unique predictors of a household's SOW for Loyalty Program One and Two at four different time points during the three year study and an overall average SOW for the three year study period. The resulting models revealed substantially high explanatory power as the adjusted R^2 ranged from 43.50% to 21.80% across all time points. These results are contrary to the background of previous research on actual behaviour which evidenced considerably lower adjusted R^2 (Jain, Pinson, & Malhotra,

1987). Table 1 is sorted according to the standardized coefficients of the combined three year model for Loyalty Program One, with the strongest unique predictor listed first.

From Table 1, the multiple regression analysis revealed four unique predictors of a household's average monthly SOW for Loyalty Program One over the three year study period. The strongest unique predictor of a household's average monthly SOW for Loyalty Program One was the number of visits to participating stores of the loyalty program. The positive relationship suggests that a household's average monthly SOW increased with each additional visit that the household made to a participating store of the loyalty program. Across each of the four time points, the relationship between the number of visits and SOW remained positive and highly significant.

Table 1: Multiple regression analysis for Loyalty Program One and Two.

Predictors of SOW		Loyalty Program One					Loyalty Program Two				
		Month				Combined	Month				Combined
		1	12	24	36	3 years	1	12	24	36	3 years
Number of visits to a participating store	Standardized Coefficient	0.543	0.540	0.471	0.454	0.526	0.586	0.614	0.570	0.566	0.610
	Unstandardized Coefficient	0.053	0.056	0.046	0.045	0.053	0.062	0.063	0.060	0.061	0.064
	Sig.	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*
Frequency of card use	Standardized Coefficient	-0.370	-0.397	-0.566	-0.457	-0.452	-	-	-	-	-
	Unstandardized Coefficient	-0.078	-0.084	-0.118	-0.093	-0.082	-	-	-	-	-
	Sig.	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	-	-	-	-	-
Ownership of the loyalty card	Standardized Coefficient	-0.155	-0.191	-0.343	-0.252	-0.239	-	-	-	-	-
	Unstandardized Coefficient	-0.117	-0.144	-0.255	-0.182	-0.155	-	-	-	-	-
	Sig.	*0.038*	*0.011*	*0.000*	*0.002*	*0.001*	-	-	-	-	-
Work status of the Main Grocery Buyer	Standardized Coefficient	-	-	-	-	0.082	-	0.088	0.100	-	-
	Unstandardized Coefficient	-	-	-	-	0.030	-	0.036	0.042	-	-
	Sig.	-	-	-	-	*0.007*	-	*0.009*	*0.004*	-	-
Number of people living in the household	Standardized Coefficient	-0.115	-0.107	-0.064	-0.080	-	-0.074	-	-	-0.083	-0.106
	Unstandardized Coefficient	-0.030	-0.028	-0.017	-0.020	-	-0.019	-	-	-0.021	-0.023
	Sig.	*0.001*	*0.001*	*0.043*	*0.026*	-	*0.032*	-	-	*0.019*	*0.002*
Age of Main Grocery Buyer	Standardized Coefficient	-0.100	-0.103	-	-0.119	-	-0.181	-0.118	-0.109	-0.168	-0.201
	Unstandardized Coefficient	-0.003	-0.003	-	-0.004	-	-0.005	-0.003	-0.003	-0.005	-0.005
	Sig.	0.004	*0.002*	-	*0.001*	-	*0.000*	*0.000*	*0.002*	*0.000*	*0.000*
Highest education level achieved by Main Grocery Buyer	Standardized Coefficient	0.089	-	0.076	-	-	-	-	-	-	-
	Unstandardized Coefficient	0.017	-	0.014	-	-	-	-	-	-	-
	Sig.	*0.004*	-	*0.015*	-	-	-	-	-	-	-
Geographic location of the household	Standardized Coefficient	-	-	-	-	-	-0.133	-0.097	-0.103	-0.103	-0.117
	Unstandardized Coefficient	-	-	-	-	-	-0.035	-0.025	-0.028	-0.027	-0.026
	Sig.	-	-	-	-	-	*0.000*	*0.002*	*0.001*	*0.001*	*0.000*
Adjusted R^2		**43.40%**	**42.10%**	**39.70%**	**34.70%**	**43.50%**	**38.40%**	**40.70%**	**36.00%**	**34.70%**	**41.60%**

Frequency of card use was identified as the second strongest unique predictor of a household's average monthly SOW for Loyalty Program One over the three year period. The negative association suggests that as a household reduced the number of shopping occasions at which they presented the loyalty card, the average SOW for Loyalty Program One declined. The frequency of card use was a consistent negative predictor of SOW over all four time points. The third strongest predictor of a household's average monthly SOW for Loyalty Program One over the three year period was whether the household owned the loyalty card. Surprisingly, however, this highly significant relationship between average monthly SOW and card ownership was negative. That is, households which *did not* own the card had a higher average monthly SOW over time in comparison to those that *did* own the loyalty card. This negative association between SOW and card ownership was observed in each of the four individual time point models.

The work status of the main grocery buyer was also found to have a negative association with the household's average monthly SOW for Loyalty Program One. For households which had a main grocery buyer working full time their average SOW was lower than those households which had a part time or unemployed main grocery buyer. However in each of the individual time point models, the work status of the main grocery buyer was not a significant predictor of SOW. It is interesting to note that the number of people living in the household was a unique predictor of SOW in each of the individual time

point models but was not a unique predictor of average monthly SOW in the combined three year model. In each of the four individual time point models, the number of people living in the household was negatively associated with SOW.

The remaining two predictors of SOW were only significantly associated in some of the four individual time point models but not in the combined three year model. The age of the main grocery buyer was found to be a unique negative predictor of SOW after one month, at the end of year one and end of year three. Whilst the highest level of education achieved by the main grocery buyer was a unique positive predictor of SOW after one month and at the end of two years.

With regards to Loyalty Program Two, there were four unique predictors of a household's average monthly SOW over the three year study period (shown in Table 1). The number of visits to participating stores of Loyalty Program Two was the strongest unique predictor of a household's average monthly SOW. Across each of the individual time point models the number of visits remained a positive unique predictor of SOW.

The age of the main grocery buyer in the household was the second strongest predictor of a household's average monthly SOW for Loyalty Program Two over the three year period. The negative relationship between the age of the main grocery buyer and SOW was also seen in each of the individual time point models. The next strongest unique predictor of a household's average monthly SOW for Loyalty Program Two was the geographic location of the household. In each of the four individual time point models the geographic location of the household had a negative association with the household's SOW for Loyalty Program Two. The final unique predictor of a household's average monthly SOW for Loyalty Program Two over the three year time period was the number of people living in the household. However within the individual time point models, household size was only a unique predictor after one month and at the end of year three. In terms of the work status of the main grocery buyer, it was only a significant predictor of SOW for Loyalty Program Two at the end of one year and two years.

DISCUSSION

The results of this study clearly demonstrate that ownership of the loyalty card is not the strongest predictor of SOW at either an individual point in time or over a period of time. Of the two loyalty programs examined in this study, ownership of the loyalty card was only identified as the third strongest predictor of SOW for Loyalty Program One. In each of the individual time point models and the combined three year model, ownership of the loyalty card had a significant negative association with a household's SOW. In effect, those households which *did* own the loyalty card had a significantly lower SOW than those households which *did not* own the loyalty card. This raises serious concerns about the effectiveness of customer loyalty programs as the overall objective for introducing a customer loyalty program is to reward, and therefore encourage, customers to adopt loyal behaviour (Leenheer et al., 2007; Sharp & Sharp, 1997).

The inability of card ownership to have a positive association with SOW could be explained by consumer perceptions relating to the attractiveness of the reward threshold and the effect of competing loyalty cards. This is supported by the timing of the reward structure as loyalty card programs typically require a series of purchases to reach a redemption threshold. These reward factors are particularly relevant to loyalty programs that require a high purchase threshold in a limited time period. Given that a high proportion of the households included in this current study were members to multiple retail grocery loyalty programs, reaching high thresholds on individual loyalty cards becomes an issue of concern. As suggested by Uncles et. al. (2003), the main advantage of loyalty card ownership is to encourage brand consideration by adding the stores associated with the loyalty program in to the customer's set of acceptable brands. As loyalty programs become more prevalent in the grocery sector the individual

value of existing loyalty programs is devalued by the increasing availability of competing loyalty cards. A situation which particularly challenges loyalty cards with higher reward thresholds as they become relatively increasingly more unattainable.

CONCLUSION

This research showed that the only consistent unique predictor of SOW at individual time points and over time was the number of visits a household made to participating stores of the loyalty program. A behaviour that was independent of loyalty card ownership and which suggests that whilst loyalty card ownership may encourage brand consideration the effectiveness of the loyalty program lies in its features being leveraged with a situational factor such as the shopping experience. For practitioners this study suggests that existing loyalty programs should constantly enhance the value proposition of the reward structure by monitoring the emergence and structure of competitor loyalty programs to ensure that their reward thresholds maintain their perceived attractiveness and achievability. Through this they will create an ability to limit the tendency towards multiple card ownership. For researchers, this study adds to the discussion on the effectiveness of customer loyalty programs and provides an avenue for further research to investigate whether the significant predictors found in this study hold true for models addressing the change in SOW.

Please note, a copy of the reference list can be obtained via email from the first author.