

Research Note

Testing Dick and Basu's Customer Loyalty Model

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Abstract

A widely cited model of customer loyalty is the typology proposed by Dick and Basu (1994) that depicts loyalty as a two-dimensional construct involving relative attitude and repeat patronage. However, while Dick and Basu conceptualise the loyalty construct, they do not operationalise it or provide empirical evidence of its predictive ability. This paper reports a test of the predictive ability of Dick and Basu's model in personal retail banking. The study is a replication of East, Sinclair and Gendall's (2000) research on loyalty in supermarket shopping, from which these authors concluded there was little support for Dick and Basu's loyalty typology.

Our study found that, in some circumstances relative attitude was a better predictor of bank loyalty than banking behaviour, while in others share of wallet (a proxy measure for repeat patronage) was better. Like East et al. (2000), we found no evidence that the prediction of customer loyalty was enhanced by the inclusion of a term for the interaction between attitude and behaviour. Nevertheless, our findings suggest that Dick and Basu's model may have some validity in subscription-type markets, like banking, where brand portfolios tend to be small and customer churn rates are relatively low.

Keywords: Customer loyalty, Dick and Basu loyalty typology

1. Introduction

According to Uncles, Dowling and Hammond (2003), customer loyalty is commonly conceptualized in three different ways. Loyalty may be conceived in terms of favourable attitudes or beliefs towards a brand, manifested in an emotional attachment to the brand. Or, it may be thought of purely in terms of behaviour, the regular purchasing of a particular brand. Finally, there is what Uncles et al. describe as the contingency approach, which assumes that the relationship between attitudes, behaviour and loyalty is moderated by variables such as an individual's current circumstances or the particular situation, or both.

While some researchers and practitioners propose that loyalty has only a single dimension, it is generally argued that loyalty is a two-dimensional construct, incorporating both attitudes and behaviour. This two-dimensional conceptualisation, integrating behavioural and attitudinal elements, originated with Day (1969). Since then, various modifications of this structure have

been suggested, with some of the best known being those proposed by Jacoby and Kyrner (1973), Jacoby and Chestnut (1978), Backman and Crompton (1991), Pritchard, Havitz and Howard (1992, 1999), and Mahony, Madrigal and Howard (2000). However, the most widely cited model is the loyalty typology developed by Dick and Basu (1994).

Dick and Basu's (1994) customer loyalty model is an elegant conceptualisation of the combined effects of attitude and behaviour. They suggest that loyalty is the result of the interaction between a customer's relative attitude to a brand, or store, and their repeat purchase behaviour for that brand or store. The typology divides customers into four loyalty groups, shown in Figure 1. Customers with high attitudinal and behavioural loyalty are described as 'true loyals', those with high behavioural loyalty but low attitudinal loyalty as 'spurious loyals', those with high attitudinal loyalty but low behavioural loyalty as 'latent loyals', and those with low attitudinal and behavioural loyalty as 'non loyals'.

Figure 1: Dick and Basu's Loyalty Model

		Repeat Patronage	
		High	Low
Relative Attitude	High	True loyalty	Latent loyalty
	Low	Spurious loyalty	No loyalty

Implicit in the Dick and Basu model is the assumption that classification of customers into four loyalty groups on the basis of relative attitude and repeat patronage should then allow the prediction of other loyalty measures such as retention and defection. However, as East et al. (2000), Bennett and Bove (2001), and Bove and Johnson (2002) point out, few attempts have been made to test this predictive ability. Nevertheless, one study that did attempt to do this was conducted by East et al. in 2000. These authors applied the Dick and Basu model to supermarket shopping in both Britain and New Zealand, suggesting that the model would be much more compelling if it could predict other behaviours related to supermarket loyalty, such as advocacy (recommendation of the store), retention and store penetration.

East and his colleagues found that in only one of the six cases (recommendation, retention and number of different supermarkets used in Britain and New Zealand) did the results fit the Dick and Basu typology. In a further test they showed that prediction was not improved by the inclusion of a variable for the interaction between attitude and behaviour (in this case, share-of-category loyalty). East et al. concluded there was little support in their study for Dick and Basu's typology. Nevertheless, because their study was one isolated test, set in a supermarket context, further work was recommended to 'test the effect of attitudinal and behavioural loyalty on other loyalty behaviours in fields such as financial services and automobiles' (p 12). This paper extends the work of East et al. by reporting a test of the Dick and Basu model in personal retail banking.

The present study uses East et al.'s methodology, but in a subscription-type market where brand portfolios tend to be small, where annual fees, transaction fees and front-end fees are common, and where customer defection rates tend to be lower than in packaged goods markets (see Colgate, 1999; Garland, 2002). The paper first describes the methodology of the study, then presents the results of bivariate and regression analyses of the

predictive ability of the Dick and Basu model in this market. We conclude by discussing the generalisability of the model.

2. Methodology

The vehicle for this research was a survey of personal retail banking customers from one bank in one region of New Zealand. At the time, this bank had a penetration of 63% of adults (16 years and over) and was the 'main bank' of 47% of customers in the region; however, all five major New Zealand trading banks and several building societies and investment institutions were represented in the study region. Customers' satisfaction levels with these financial institutions and the study bank were relatively high by international standards (see Colgate, 1999; Garland, 2002), but sufficiently varied to ensure a suitably competitive market in which to operationalise Dick and Basu's relative attitude measure.

A total of 1700 customers from the bank were surveyed by mail. After an initial posting and two reminders to non-respondents, 1096 valid responses were received. Some 32 respondents were ineligible or refused to participate, and 99 questionnaires were returned 'Gone - no address', giving a response rate of $1096/(1700-131) = 70\%$. Comparison of the characteristics of the resulting sample with those of all the bank's customers confirmed that the sample was representative of the population from which it was drawn.

Testing the predictive validity of the Dick and Basu model requires measures of both attitude and behaviour related to customer loyalty. As far as attitude measurement is concerned, Dick and Basu (1994) argued that evaluations of a supplier in comparison to those for competitors were superior to attitude measures in isolation. Bove and Johnson (2002) operationalised this relative attitude by creating an index from four attitude statements that conveyed comparisons with other suppliers. East et al. (2000) used a simple comparative rating of main grocery store. For banking, where

customers are constrained in their choice by the subscription-like characteristics of the market, an advocacy measure can act as a proxy for relative attitude. Hence for our study, Juster's (1966) 11-point probability scale was used to gain estimates of customers' future recommendation of their main bank to anyone who requested such advice. (For a full review of the Juster scale's reliability and validity, see Day, Gan, Gendall, and Esslemont, 1991; Brennan, Esslemont, and Hini, 1995; Parackal and Brennan, 1998; and Danenberg and Sharp, 1999.)

The relative attitude measure used here needed a procedure for converting the Juster scale probabilities into two categories: high and low relative attitude. Danenberg and Sharp (1999) provided such a procedure, stating 'typically, the data collected from a probability scale is analysed at the aggregate level... However, in order to analyse the data at a more disaggregate level, as this analysis does, a method of collapsing the 11 points of the scale into two ... was developed' (p 16). These two researchers observed their scale's distribution of frequencies and set their cut off point where the cumulative frequency of responses most closely matched

the predicted level. In the present study, the 'cut off point' was 76%, thus Juster scale responses from 8 to 10 were coded as high relative attitude and responses from 0 to 7 assigned low relative attitude.

The proxy for Dick and Basu's behavioural measure (repeat patronage) was share loyalty, or share of wallet, measured as the proportion of personal retail banking business devoted to the main bank. The distribution of this variable showed that 75% of customers claimed to have at least 91% of their banking business with one bank, and this condition was denoted as high share loyalty. The remaining 25% of customers were defined as low share loyalty customers.

The loyalty-related behaviour to be predicted involved two measures of retention and a measure of penetration. The first retention measure was propensity to increase banking business at the main bank, the second, propensity to defect from the main bank. Both these variables were measured using the Juster probability scale. The penetration measure was simply number of banks used.

Table 1: Mean Number of Banks Used (Penetration)

A low mean represents a high degree of loyalty

		Share loyalty	
		High (91-100%)	Low (<91%)
Relative Attitude	High	1.43 (n=554)	1.58 (n=127)
	Low	2.27 (n=265)	2.37 (n=150)
Sample size		(n=819)	(n=277)

Table 2: Main Bank Retention: Propensity to Increase Banking, Propensity to Defect

		Retention (increase) Share loyalty		Retention (defection) Share loyalty	
		High	Low	High	Low
Relative Attitude	High	53%	53%	7%	8%
	Low	36%	32%	14%	17%

3. Results and Discussion

The relative attitude and share loyalty measures were used to categorise customers into the Dick and Basu (1994) typology. This allowed for simple, bivariate investigation of the ability of the model to predict the number of banks used (penetration), propensity to increase banking business at the main bank and propensity to defect (retention). Tables 1 and 2 show the results of this process.

The cell figures in each table are percentages of the cell segment, except in Table 1, which shows mean number of banks used. (Output from the Juster scale yields mean percentages, which can be treated as measures of central

tendency.) The numbers in parentheses in Table 1 are the segment cell sizes (sub-sample sizes); these numbers also apply to Table 2. The results in Tables 1 and 2 show that the Dick and Basu (1994) typology of customer loyalty is supported at the bivariate level of analysis. (In the retention section of Table 1 the percentages for 'true loyals' and 'latent loyals' are the same, whereas Dick and Basu's model predicts that the value for 'true loyals' will be higher. However, one anomalous result out of 12 does not obscure the overall pattern or negate the conclusion that the typology is supported at the bivariate level.)

The 'true loyalists' of the top left segment (segment 1: high relative attitude, high share loyalty) have the highest

Table 3: Number of Banks Used

Independent variable	Number of Banks	
	Std Beta	Signif.
Relative Attitude	-.08	.05
Share Loyalty (% of business)	-.62	.00
Product of Relative Attitude & Share Loyalty	.07	.15

Adjusted R²= .36; df = 3; F=203.7

Table 4: Propensity to Increase Business and Propensity to Defect

Independent variable	Retention (increase)		Retention (defection)	
	Std Beta	Signif.	Std Beta	Signif.
Relative Attitude	.35	.00	-.23	.00
Share Loyalty (% of business)	.01	.72	-.07	.10
Product of Relative Attitude & Share Loyalty	-.04	.46	.08	.17

Adjusted R²= .11; df=3; F=42.7 Adjusted R₋²= .04; df=3; F=14.9

propensities to increase business with their main bank, while their mean number of banks (1.43) and average propensity to defect (7%) are lowest. Indeed, the 'true loyalists' of segment 1 are substantially more likely to increase their banking business at their main bank than the 'non-loyal' customers of the bottom right segment. On average, 'non-loyalists' conduct business with an extra bank and are much more likely to defect from their main bank in the next twelve months.

However, hybrid constructs may be additive or interactive and the simple bivariate analysis reported above cannot differentiate between additive and interactive effects. As East et al. (2000) state, 'such a test does not allow for other influences on loyalty behaviours and cannot easily distinguish between additive and interactive effects' (p 9). They recommended regression analysis to overcome these deficiencies. Thus ordinary least squares regression was used to predict future loyalty behaviour from three independent variables that include attitudinal and behavioural loyalty measures. While logistic regression might have been used, Sudman and Blair (1998) state that 'if the purpose of doing an analysis is simply to determine whether a dependent variable relates to the independent variables, or...to compare the relative contributions of various independent variables, logistic regression is not needed. A conventional multiple regression will provide satisfactory results in these circumstances' (p 540).

Tables 3 and 4 show the relationships derived from multiple regression analyses of the three behavioural outcomes – number of banks used, propensity to increase banking business at the main bank in the next 12 months, and propensity to defect from the main bank in the next 12 months – and three predictor variables – relative attitude, share loyalty, and an interaction variable that is the product of relative attitude and share loyalty.

In Table 3, both relative attitude and share loyalty are significant predictors of number of banks used. For the two retention variables (Table 4), relative attitude is a significant predictor of propensity to increase business at the main bank, while share loyalty impacts significantly on (resistance to) defection (though only at the 10% significance level, so the relationship is weak). In no circumstances did the interaction variable have a statistically significant influence on any of the loyalty behaviours, but its introduction did produce one significant shift in R-squared; that for mean number of banks increased from .29 to .36.

4. Conclusions

The results of this study, set in a subscription-type market, provide some support for the Dick and Basu customer loyalty typology. The pattern of responses derived from the bivariate analysis shows the most loyal customers have the fewest banks, the highest likelihood of increasing business with their main bank, and the lowest probability of defection from that bank. Non-loyal customers are just the opposite. Regression analysis revealed that both attitude and behaviour were significant predictors of the number of banks used, the only true behavioural variable tested. Also, rather than being multiplicative (as postulated by East et al.), the interaction between relative attitude and share loyalty in personal retail banking appears to be additive.

Our research was conducted in one area of New Zealand and involved customers from one bank, with high penetration and high 'main bank' share. This, combined with the switching costs and customer inertia that characterise banking in general, raises the possibility that contingency factors may be the strongest determinant of the results we observed. However, while we expect loyalty patterns in banking to be affected by these contingency factors, customers do switch banks and commonly have a portfolio of financial institutions they use. Thus, despite the real inconvenience of switching from one main bank to another, churn does occur in subscription-type markets like banking, and there is no *a priori* reason to suspect that all four of Dick and Basu's loyalty categories will not be found in such markets.

The relative attitude measure we used in our research (the propensity to recommend one's main bank) could be criticised on the grounds that it is closer to a behavioural intention than an attitude. Yet any relative attitude measure, by its very nature, involves comparative value, with the potential for reinforcement effects from past behaviour. Finding, and then operationalising, a 'pure' relative attitude measurement as Dick and Basu (1994) advocated is not easy. Perhaps this partially explains why their model has remained until recently conceptually based without empirical testing.

The research reported here used a slightly different proxy for relative attitude than that of East et al.'s (2000) research and the market context was personal retail banking, not supermarkets. That aside, in the process of confirming Dick and Basu's expected pattern of response, the results of our study are different to East et al.'s. Their findings led them to conclude that it is better

to treat loyalty as a behavioural construct alone, since behaviour is of ultimate concern to marketers. Despite their compelling arguments for a single loyalty measure, our study does not support treating customer loyalty as purely behavioural.

Dick and Basu's loyalty typology is a plausible conceptualisation of an important marketing construct, consistent with what is generally assumed about the determinants of loyalty. Yet like many plausible generalisations in marketing, it has no empirical basis, and the two studies that have tested Dick and Basu's model, East et al.'s and ours, have produced contradictory findings. Nevertheless, our results suggest that Dick and Basu's model may have some validity in subscription-type markets, such as personal retail banking, where brand portfolios tend to be small and customer churn rates relatively low. However, further testing is required before this conclusion could be generalised to other markets or other product categories. As well as applying the model in different circumstances, further research could also use cluster analysis to test whether customers are partitioned into Dick and Basu's four loyalty categories, or path analysis to identify the relationships between relative attitude, repeat patronage and various loyalty-related measures.

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