

Testing the Factor Structure of the Behavioral-Intentions Battery: An Empirical Study of the Australian Banking Industry

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Abstract

The five-factor 'Behavioural-Intentions Battery' was developed by Zeithaml, Berry and Parasuraman (1996), to measure customer behavioural and attitudinal intentions. The structure of this model was re-examined by Bloomer, de Ruyter and Wetzels (1999) across different service industries. They concluded that service loyalty is a multi dimensional construct consisting of four, not five, distinct dimensions. To date, neither model has been tested within a banking environment. This research independently tested the 'goodness of fit' of both the four and five-factor models, to data collected from branch bank customers. Data were collected via questionnaire with a sample of 348 banking customers. A confirmatory factor analysis was conducted upon the two opposing factor structures, revealing that the five-factor structure has a superior model fit; however, the fit is 'marginal'.

Introduction and Research Objective

It is argued that "understanding how or why a sense of loyalty develops in customers remains one of the crucial management issues of our day" (Prichard, Havitz and Howard, 1999, p. 333). There have been a number of attempts to develop typologies of loyalty (e.g., Hoare 2000; Knox 1998; Zeithaml, Parasuraman and Berry, 1996; Dick and Basu, 1994). Zeithaml, Berry and Parasuraman (1996) take the position that loyalty has five dimensions: Loyalty, Switch, Pay more, External responses and Internal responses. Bloemer, de Ruyter and Wetzels (1999) raise a number of conceptual and empirical criticisms of this model, and upon re-examination, concluded that the five-factor structure was unreliable. They suggest that service loyalty consists of only four dimensions: Word-of-mouth, Purchase intentions, Price sensitivity and Complaining behaviour. The conflicting findings warrant a replication of the Behavioural-Intentions Battery as proposed by Zeithaml, Berry and Parasuraman (1996). The objective of this research is to independently test the fit of the two models, i.e., the four-factor model and the five-factor model, to data collected from branch bank customers, to determine if support is found for either factor structure.

Customer Loyalty

Researchers have operationalised customer loyalty as a behaviour, e.g., hard-core loyalty, or probability of repeat purchase. In this regard, customer loyalty has been measured as a minimum differential needed for switching (Raju, Srinivasan and Raju, 1990) or as the long-term choice probability for a brand (Jeuland, 1979). Customer loyalty has also been measured as an attitude, e.g., brand preference, intention-to-buy, or commitment. These approaches focus on brand recommendations (Boulding *et al.* 1993), repurchase intentions (Anderson and Sullivan, 1993; Cronin and Taylor, 1992), willingness to pay a price premium (Zeithaml, Berry and Parasuraman, 1996) and resistance to superior products (Narayandas, 1996). In addition to the behavioural and attitudinal approach to customer loyalty, there is also a cognitive side to customer loyalty (Lee and Zeiss, 1980). For instance, customer loyalty is often operationalised as the product or service that is a customer's first choice among

alternatives (Ostrowski, O'Brien and Gordo, 1993), or the product or service that first comes to mind when making a purchase decision (Dwyer, Shur and Oh, 1987).

As a result of the various constructs used to categorise loyalty, there is no unitary definition of loyalty. However, most definitions contain one of three components, namely, cognition, attitude, and behavioral intention. Loyalty has been described as “a deeply held commitment to re-buy or re-patronise a preferred good/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational and marketing efforts having the potential to cause switching behaviours” (Oliver, 1999, p. 34). The central thrust of the marketing activities of a firm are often viewed in terms of development, maintenance, or enhancement of customers’ ‘loyalty’ towards its services or products (Dick and Basu, 1994).

Lowering customer defection rates can be profitable to companies. Business analysts have suggested that the cost of recruiting a new customer is five times more than the cost of retaining an existing customer (Barsky, 1994; Reichheld and Sasser, 1990). Typically, when customers are lost, replacements must be found. This replacement/recruitment procedure is expensive as it involves a number of processes: advertising; personal selling; set-up costs; explaining business procedures to new clients; and cost of inefficient dealing during the learning process of new clients (Peppers and Rogers, 1993). The longevity of a customer’s relationship favourably influences profitability (Zeithaml, Berry and Parasuraman, 1996). Furthermore, “customers who remain with a firm for a period of years because they are pleased with the service, are more likely than short-term customers to buy additional services and more importantly spread favorable word-of-mouth” (Zeithaml, Berry and Parasuraman 1996, p. 33). Traditionally, the retail banking market has been characterised by very strong customer inertia. However this situation is slowly changing (Waterhouse and Morgan, 1994). Retail bank customers are ‘shopping around’ more than ever and they may be customers of several banks, depending on the products and services available (Worcester, 1997; Yavas and Shemwell, 1996).

Loyalty Measurement

Although the loyalty literature contains a plethora of measures, these measures are predominantly operational and devoid of theoretical meaning (Dick and Basu, 1994). Zeithaml, Berry and Parasuraman (1996) concur, arguing that the operationalisation of the ‘loyalty’ construct often remains limited, ignoring the full range of conceivable loyalty (re)actions that may follow the evaluation of a service. Cronin and Taylor (1992), for instance, focus solely on repurchase intentions, (measuring this construct as a single item), whilst Boulding *et al.* (1993) operationalise repurchase intentions as a willingness to recommend. The dimensions of loyalty, such as willingness to pay more and loyalty under increased pricing, have been omitted in previous research (Zeithaml, Berry and Parasuraman, 1996).

Behavioural-Intentions Battery

On the basis of analysis across four contrasting industries: computer manufacturer, retail chain, automobile insurer and life insurance, Zeithaml, Berry and Parasuraman (1996) proposed a comprehensive, multi-dimensional framework of customer behavioural and attitudinal intentions for use within a service industry. The framework (presented in Table 1) incorporates 13-items across five-dimensions: loyalty to company (loyalty) propensity to

switch (switch), willingness to pay more (pay more), external responses to a problem (external responses), and internal responses to a problem (internal responses).

Table 1: Behaviour-Intentions Battery

<i>Loyalty</i>		
1	Say positive things about XYZ to other people.	(loyalty1)
2	Recommend XYZ to someone who seeks your advice.	(loyalty2)
3	Encourage friends and relatives to do business with XYZ.	(loyalty3)
4	Consider XYZ your first choice to buy services.	(loyalty4)
5	Do more business with XYZ in the next few years.	(loyalty5)
<i>Switch</i>		
6	Do less business with XYZ in the next few years.	(switch1)
7	Take some of your business to a competitor that offers better prices.	(switch2)
<i>Pay More</i>		
8	Continue to do business with XYZ if its prices increase somewhat.	(paymore1)
9	Pay a higher price than competitors charge for the benefits you currently receive from XYZ.	(paymore2)
<i>External Responses</i>		
10	Switch to a competitor if you experience a problem with XYZ's service.	(extnres1)
11	Complain to other customers if you experience a problem with XYZ's service.	(extnres2)
12	Complain to external agencies, such as consumer organizations, if you experience a problem with XYZ's service.	(extnres3)
<i>Internal Response</i>		
13	Complain to XYZ's employees if you experience a problem with XYZ's service.	(intnres1)

Zeithaml, Berry and Parasuraman (1996, p. 38)

Bloemer, de Ruyter and Wetzels (1999) raised a number of conceptual and empirical criticisms of the Behavioural-Intentions Battery. Their conceptual criticism focused on inter-dimensional overlap (e.g., various expressions of customer complaining behaviour or response to a dissatisfactory service encounter are distributed over two factors, "external response to a problem" and "internal response to a problem"; pricing-related loyalty intentions are placed under two factors, "propensity to switch" and "willingness to pay more). Empirically, they claimed that the use of a single-item measure, "internal response to a problem", should be avoided. Furthermore, they argued that the five-factor solution did not appear to provide an unambiguous and consistent factor pattern and that this impacts the reliability of the measure. On the basis of analysis across four service industries: entertainment, fast food, supermarkets and health care, they concluded that service loyalty is a multi-dimensional construct consisting of the following four dimensions: Word-of-mouth, Purchase intentions, Price sensitivity, and Complaining behaviour (refer to Figure 2, for allocation of variables, presented in Table1, to factors identified by Bloemer, de Ruyter and Wetzels, 1999).

Methodology

Bank customers from two opposing age segments were targeted, viz., retirees (people over the age of fifty-five who have retired from full-time employment) and university students. Lawn Bowls and Senior Citizens' Clubs were identified as places that retired people frequent. A

systematic sampling process was undertaken whereby every 14th club listed in the Melbourne Yellow Pages telephone directory was chosen. In total, 12 clubs were selected (six of each). A safety box was then delivered to each participating club, with a message on the front of the box inviting retirees to complete the questionnaire in their own time. A total of 102 questionnaires were returned complete and used in subsequent analysis. In relation to the university student sample, every 23rd undergraduate unit on offer during second semester at an Australian University was systematically selected. Unit Chairs for each selected unit were contacted and invited to participate in the study. Self-administered questionnaires were then distributed to students in the relevant lectures. Students were asked to complete the questionnaire at the beginning or end of the lecture depending on the lecturer's preference. A total of 246 questionnaires were returned complete and used in subsequent analysis. A 7-point likelihood scale (1 indicating extremely likely and 7 indicating extremely unlikely) was utilised across the 13 loyalty items presented in Table 1.

Data Analysis and Research Findings

Using the confirmatory factor analysis (CFA) abilities of AMOS 4.0, we independently tested the fit of the four and five factor structures to the observed data. The standardised results are presented in Figures 1 and 2. The fit statistics for the five-factor structure model are as follows: $\chi^2 = 271.65$, $p < 0.001$, $df = 56$, $GFI = 0.89$, $RMSEA = 0.093$, $AGFI = 0.83$, $NFI = 0.86$, $TLI = 0.83$, $CFI = 0.88$. The fit statistics for the four-factor structure model are as follows: $\chi^2 = 291.37$, $p < 0.001$, $df = 59$, $GFI = 0.88$, $RMSEA = 0.095$, $AGFI = 0.81$, $NFI = 0.85$, $TLI = 0.83$, $CFI = 0.87$. On the basis of the afore-mentioned results, all the goodness of fit results for both factor structures indicate a marginal level of fit (see Hair *et al.*, 1998 or Schumacker and Lomax, 1996 for acceptable levels of fit). Thus, both models are rejected as 'adequate' candidates for the factor structure underlying the observed data.

Conclusion, Research Limitation and Implications for Future Research

The Behavioural-Intentions Battery has not been previously tested on data collected within a banking environment. The results of our study emphasise the importance of replication studies in the field of (services) marketing (Hubbard and Armstrong, 1994). The findings suggest that the five-factor structure model has a better goodness of fit to the observed data, contradicting Bloemer, de Ruyter and Wetzel's (1999) findings. However, fit statistics are 'marginal' for the five-factor structure and therefore below acceptable levels. It is possible that differences in the nature of the service setting might require additional dimensions of loyalty. It is also important to draw attention to the limitations of this study, namely that data were collected via a convenience sample, involving opposing age segments. It is recommended that future data be collected from a probability sample, across all customer segments. Finally, the focus of the Behavioural-Intentions Battery is on loyalty *intentions*. Future research should be supplemented by *actual* (re)actions of consumers in order to develop a composite index of service loyalty (Dick and Basu, 1994).

Figure 1: Zeithaml, Berry and Parasuraman's Five-Factor Structure Model

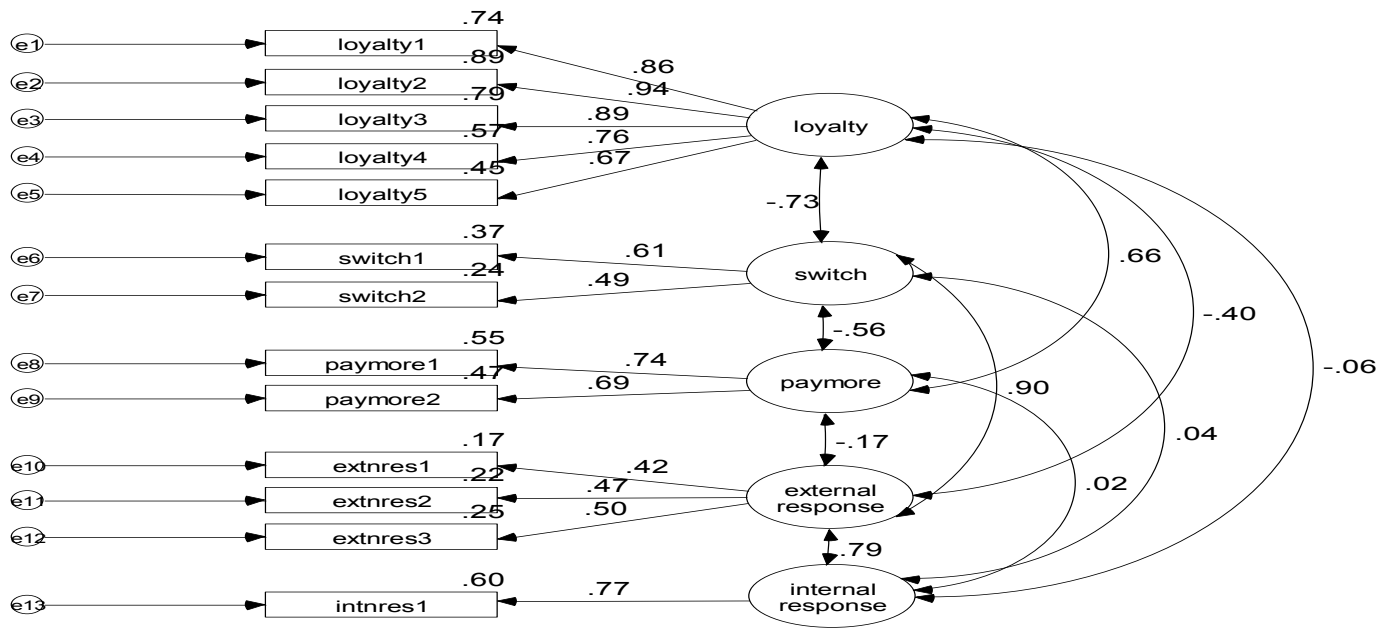
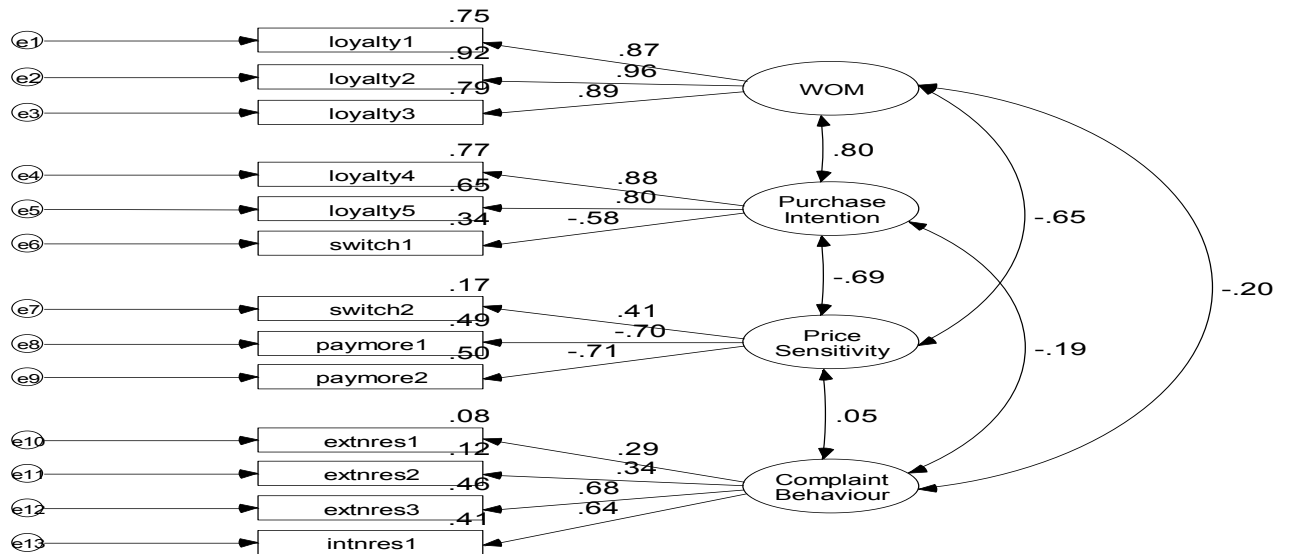


Figure 2: Bloemer, de Ruyter and Wetzels's Four-Factor Structure Model



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