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**Switching Determinants in  
Subscription Service Markets:**

**Banking and Electricity in New Zealand**

**A thesis presented in partial fulfilment  
of the requirements of the degree  
Master of Business Studies**

**at**

**Massey University  
New Zealand**

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## ABSTRACT

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This study examines the important role switching costs play in consumer loyalty to service providers. Banking and residential electricity consumers were studied in New Zealand using the framework developed by Burnham, Frels & Mahajan (2003). An attempt was made to replicate their measurement model using Burnham *et al.*'s eight first order constructs. An acceptable fit to the data was achieved, however, their instrument's scale items did not load as predicted indicating limited convergent and discriminant validity. In replicating Burnham *et al.*'s three factor second order model, of their three factors - procedural, financial and relational - only *relational* costs proved significant in influencing a consumer's *intention to stay* with their current service provider. A relationship between *satisfaction* with a service and a greater *intention to stay* with that service was confirmed.

Possible explanations for the poor performance of the Burnham *et al.* structural model might be that their measurement model violates some basic rules for scale development. The lack of validity of some scales leads to speculation that the significant results reported by Burnham *et al.* were the result of fortuitous fit to their USA data.

The value of a theory is in its general applicability to situations outside its original context. While the Burnham *et al.* (2003) theory may have been intuitively sound, this attempt to operationalise their model was hindered by a measurement instrument which lacked convergence, discriminance and reliability. The Burnham *et al.* model demonstrated in this replication an adequate fit to the data, but goodness-of-fit alone does not indicate a structurally sound model. It also requires validity.

The findings of this thesis are that their model may require modification to some scales before it will be universally useful.

Keywords: Customer retention, confirmatory factor analysis, structural equation modelling, switching costs, loyalty, satisfaction, switching, defection, subscription markets, services.

# 1. INTRODUCTION

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## 1.1 The Research Problem

Commerce, at its most basic relies on sales. While sales in repertoire markets occur frequently, selling activity in subscription markets is far less common. A customer of an electricity supplier, for example, can be seen as continuously purchasing a service from the supplier and thus rarely experiences selling. This rarity of selling in subscription services markets has resulted in the placing of more focus on retaining existing customers and attracting new customers from the competition, - customer retention and customer switching. With the level of competition and the cost of customer acquisition rising, companies are focusing on customer retention (Jones, Mothersbaugh, & Beatty, 2000) and thus it has become increasingly important to understand what drives customers to stay with or switch from their current service provider.

In consumer fast moving good markets significant progress has been made in identifying what drives loyalty and switching. It is understood that much buying of fast moving consumables is stochastic and consumer behaviour is dominated by patterns of repertoire buying and switching. These patterns have become well known through the Negative Binomial Distribution and Dirichlet model studies (Uncles, Ehrenberg, & Hammond, 1995). Resulting in a series of generalisations useful for prediction. Generalisations such as polygamous loyalty and multi-brand buying are becoming increasingly accepted in literature (Ehrenberg, Uncles, & Goodhardt, 2004). Do these generalisations hold for subscription services markets? Is consumer in repertoire markets transferable to subscription markets or is there consumer behaviour unique to subscription markets?

While it has been identified that subscription service markets do have some Dirichlet elements amongst their characteristics, it is also apparent that switching behaviour in service markets is rare (Sharp, Wright, & Goodhardt, 2002). This rarity of behaviour results in difficulties in using behavioural measures to build and validate predictive models, and a reliance on attitudinal measures; behavioural intention or self reported predictions of behaviour (probabilities) to identify likely behaviour.

Researchers have come to believe that many service markets are different to fast moving consumer good markets in that, they are characterised by high *switching costs*, high levels of *personal interaction* and high levels of *loyalty* (switching is rare). The extent to which these three components interact to determine loyalty and switching behaviour is not well known. What is well known is that *satisfaction* plays a substantial part in this behaviour (Szymanski & Henard, 2001).

In the last ten years there have been several attempts to clarify the importance of *switching costs*, *personal interactions* and *satisfaction* in services (Gremler, 1995; Klemperer, 1995; Jones, Mothersbaugh, & Beatty, 2002; Burnham, Frels, & Mahajan, 2003). Out of this activity has come some understanding of measurement scales for researching service markets and the constructs that make up loyalty. The results, however, have been inconsistent, as researchers have worked on confirming the work of others to a limited extent, focusing instead on the creation of alternative models. This thesis attempts to validate a recent study by Burnham, Frels and Mahajan (2003) who developed a typology for switching by focusing on *switching costs* along with their antecedents and consequences in long distance calling and credit card services. The approach in this thesis was to 'reverse engineer' the Burnham *et al.* (2003) study and use this knowledge to replicate their survey and analysis. The survey instrument derived from this process was then used to collect data from New Zealand consumers in the banking and electricity markets. Data from these industries was then used to validate the measurement model and a series of structural models proposed by Burnham *et al.* (2003).

The overall objective was to determine whether the *switching costs* components proposed by Burnham *et al.* (2003) in their typology can be sustained in a test of their model on New Zealand data from two further service industries. In this thesis, the antecedents of *switching costs* were not considered. Only the *switching costs* and *consequences* identified in Burnham *et al.*'s (2003) model were included. See Chapter Six for the detailed objectives of this thesis.

The strategy was one of replication and close extension. The choice of Burnham *et al.* over other worthy studies is somewhat arbitrary because without replication there is no reason to believe the Burnham *et al.* (2003) typology is more valid than any other, however, they drew on much of the work that has gone before, and thus serves as a

useful first point of reference for one of first replications in the field of subscription services *switching costs*.

## 1.2 Main Findings

- There does not appear to be adequate support from this thesis to accept Burnham *et al.*'s. second order model.
- There was strong support for a relationship between *satisfaction* and *intention to stay*.
- The only construct with any substantive or significant support was *relational*
- The Burnham *et al.* finding that an interaction does not exist between *satisfaction* and *switching costs* was confirmed with the condition that it is based on the Burnham *et al.* second order model, which in itself has doubtful support.
- The Burnham *et al.* measurement instrument has some design flaws related to the number of questions chosen for the study. *Intention to stay* and *monetary loss cost* both had scales with only two items. This violates the minimum requirement for reliable scales (Ding, Velicer, & Harlow, 1995).
- Not all Burnham *et al.*'s. scale items are uni-dimensional in the New Zealand context. Questions 8, 9, 10, 15, 16, and 22 showed significant multi-dimensionality that would typically rule them out of as scale items.
- Not all Burnham *et al.*'s. scale items loaded onto the construct Burnham *et al.* had intended they would. Questions 9, 10, 11, 13, 16, 29, 30, 31 all loaded heavier onto a construct other than intended.
- Some questions were difficult for respondents to answer or perhaps seen as irrelevant by respondents, which was demonstrated by large numbers of missing responses for questions 21 and 24.

## 1.3 Organisation of this Thesis

- Chapter Two is brief discussion of the main themes of switching in services and discusses how best to define switching.
- Chapter Three is a discussion of the literature on the determinants of subscription market switching and particularly; *satisfaction, personal relationships*, and *switching costs*.
- Chapter Four describes the three key pieces of research that relate most closely to the objectives of this thesis. They are Gremler's (1995) doctoral thesis, Jones, Mothersbaugh, Beatty (2002), and Burnham, Frels and Mahajan. (2003).
- Chapter Five briefly covers the literature on the need for and problems with undertaking replication.
- Chapter Six covers the research objectives.
- Chapter Seven describes the procedure, sample and research instrument. The similarities and differences between this study and the original by Burnham *et al.* (2003) are covered, along with the limitations of the research design for both studies.
- Chapter Eight describes the validation of Burnham *et al.*'s (2003) measurement scale items against New Zealand data.
- Chapter Nine describes the validation of Burnham *et al.*'s (2003) first order measurement model against New Zealand data.
- Chapter Ten describes the validation of the Burnham *et al.*'s. (2003) second order measurement model against New Zealand data.
- Chapter Eleven describes the validation of the Burnham *et al.*'s. (2003) structural models, along with a test of the Burnham *et al.* hypotheses Seven, Eight and Nine.
- Chapter Twelve covers discussion, conclusions, limitations and avenues for further research.