## Gordon Institute of Business Science

University of Pretoria

# The effect of price promotions on customer utilisation in retail banking 

By

## Rethabile Motsoahae

Student number: 19370483

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

11 March 2020


#### Abstract

The aim of this research study is to determine the effect of price promotions on customer channel utilisation in retail banking and how different types of message framing improve the effectiveness of price promotions. The goals of this research are to: 1) provide additional empirical evidence of whether the prospect theory's loss aversion is applicable in price promotions; 2) to identify the most effective message framing/s in price promotions.

Price promotions have been identified as the most effective mean of increasing sales and utilisation by retailers. It is well accepted that price promotions increase in effectiveness when coupled with the appropriate type of message framing. This research confirmed the effect of price promotions to be true and applicable in the retail banking industry. It showed that different types of message framing can improve the results of price promotions.

An experiment was conducted with four groups to test the main effects of the different types of message framing. The results of the study confirmed the first research hypothesis, demonstrating that price promotions have a significant effect on the customer channel utilisation mean. A significant increase in mean customer channel utilisation was observed for both the positive goal-framed price promotion and the risky choice framed price promotion (where promotion benefits are static and known upfront by all customers).


The original 'loss aversion' premise of prospect theory (which postulates that customers are more prone to take up negative-framed promotions than positiveframed promotions) was refuted by the results.

The implications of the study for retail bank executives and marketing managers are discussed in the final chapter. Recommendations are provided for the bank executives and marketing managers. Recommendations are also provided for how to carry out future research.

## Keywords

Price promotions, message framing, loss aversion, customer channel utilisation

## Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Name: Rethabile Motsoahae

Signature:

Date:

## Contents

CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM ..... 1
1.1 Introduction ..... 1
1.2 Research Problem Motivation ..... 3
1.3 Research Objectives and Scope ..... 6
1.3.1 Research Objectives ..... 6
1.3.2 Research Scope ..... 6
1.4 Report Structure ..... 7
CHAPTER 2: LITERATURE REVIEW ..... 8
2.1 Introduction ..... 8
2.2 Price Promotions ..... 9
2.2.1 Price Promotions in Retail Banking ..... 10
2.2.2 Price Promotions and Customer Banking Channels ..... 14
2.2.3 Framing of Price Promotions ..... 16
2.3 Theoretical Framework for Message Framing: Prospect Theory ..... 17
2.3.1 Prospect Theory and Pricing Promotions ..... 19
2.4 Types of Message Framing ..... 21
2.4.1 Goal Framing ..... 21
2.4.2 Attribute Framing ..... 22
2.4.3 Risky Action Framing ..... 22
2.5 Conclusion ..... 23
CHAPTER 3: RESEARCH HYPOTHESIS ..... 25
3.1 Business Impact ..... 25
3.2 Goal Framing ..... 26
3.3 Risky Choice Framing ..... 27
CHAPTER 4: RESEARCH METHODOLOGY ..... 28
4.1 Philosophy ..... 28
4.2 Approach ..... 28
4.3 Purpose of the Research Design ..... 28
4.4 Strategy. ..... 29
4.5 Time Horizon ..... 31
4.6 Population ..... 32
4.7 Unit of Analysis ..... 32
4.8 Sampling Method and Size ..... 32
4.9 Measurement Instrument ..... 33
4.10 Data-Gathering Process ..... 34
4.11 Analysis Approach ..... 34
4.12 Limitations ..... 35
CHAPTER 5: DISCUSSION OF RESULTS ..... 36
5.1 ntroduction ..... 36
5.1.1 Sample Size and Data Transformation ..... 36
5.1.2 Description of Demographics ..... 37
5.1.3 Descriptive Statistics for the Total Sample Data ..... 39
5.2 Results Per Hypotheses ..... 40
5.2.1 Business Impact: Hypothesis 1 ..... 40
5.2.2 Descriptive Statistics ..... 40
5.2.3 Hypothesis 2 and Hypothesis 3 Test Results ..... 43
5.3 Hypothesis 2: Goal Framing ..... 46
5.3.1 Descriptive Statistics ..... 47
5.3.2 Hypothesis 2 Results ..... 47
5.4 Hypothesis 3: Risky Action Framing ..... 48
5.4.1 Descriptive Statistics ..... 49
5.4.2 Hypothesis 3 Results ..... 50
5.5 Mean Comparison by Age ..... 50
5.6 Mean Comparison by Gender ..... 52
5.7 Mean Comparison by Segment ..... 53
5.8 Conclusion ..... 55
CHAPTER 6: DISCUSSION OF RESULTS ..... 56
6.1 Business Impact: Objective 1 ..... 57
6.2 Framing of Price Promotions: Objective 2, Hypothesis 2 ..... 58
6.3 Framing of Price Promotions: Objective 2, Hypothesis 3 ..... 61
6.4 Concerns ..... 64
6.5 Summary of Discussions ..... 65
CHAPTER 7: CONCLUSION ..... 67
7.1 Introduction ..... 67
7.2 Key Findings ..... 68
7.3 Recommendations ..... 70
7.4 Limitations ..... 71
7.5 Recommendations for Future Research ..... 72
REFERENCES ..... 74
List of Tables
Table 1: Gain- and Loss-Framed Promotion Messages ..... 17
Table 2: Loss-Aversion Framing of Discuounts ..... 21
Table 3: Framing Matrix ..... 30
Table 4: Promotion Message Framing ..... 33
Table 5: Demographics of Participants ..... 38
Table 6: Participants' Demographics Per Category/Group ..... 38
Table 7: Descriptive Statistics Per Category ..... 39
Table 8: One-Way ANOVA SPSS Output: Levene's Test of Homogeneity of Variance ..... 40
Table 9: Descriptive Statistics - POS Volume Before and After Campaign ..... 41
Table 10: Descriptive Statistics - POS Value Before and After Campaign ..... 41
Table 11: Paired Sample T-test Results for POS Volume ..... 42
Table 12: Paired Sample T-test Results for POS Value ..... 43
Table 13: Descriptive Statistics Mean POS Volume Before and After Framed Price Promotion ..... 44
Table 14: One-Way ANOVA SPSS Output: ANOVA Test ..... 44
Table 15: One-Way ANOVA SPSS Output: Brown-Forsythe Equality of Means ..... 45
Table 16: One-Way ANOVA SPSS Output: Contrast Coefficients ..... 45
Table 17: One-Way ANOVA SPSS Output: Contrast Test ..... 45
Table 18: One-Way ANOVA SPSS Output: Bonferroni Post-Hoc Tests ..... 46
Table 19: Descriptive Statistics: Mean POS Volume Grouped by Age ..... 51
Table 20: One-Way ANOVA - Age Groups Mean POS Volume ..... 51
Table 21: Descriptive Statistics: Mean POS Volume Grouped by Gender ..... 52
Table 22: One-Way ANOVA - Gender Group Mean POS Volume ..... 52
Table 23: Descriptive Statistics: Mean POS Volume Grouped by Segment ..... 53
Table 24: One-Way ANOVA - Segment Groups Mean POS Volume ..... 53
Table 25: Segment Groups Tukey HSD Post-Hoc Test ..... 54
Table 26: Hypothesis Testing: Summary of Results ..... 55

## Chapter 1: Introduction to the Research Problem

### 1.1 Introduction

In recent years, the financial services industry (and, in particular, the banking sector) has experienced increased competition from traditional and non-traditional financial services providers. Customers are regularly exposed to multiple financial solutions and are prone to banking with multiple banks and switching from one bank to another. This trend is driven by changes in consumer behaviour: customers desire greater control in their banking relationship (Lymperopoulos, Chaniotakis \& Soureli, 2013). It is also driven by transparency regulations, introduced in recent years by the central banks in Southern Africa, which require banks to provide full disclosure on all information about their products and pricing, the terms and conditions, and the various similarities in banking products (Lymperopoulos et al. 2013).

According to Lymperopoulos et al. (2013), financial services providers are in greater competition with one another due to transparency in pricing. The following factors have contributed to this increase in price transparency, over the years: 1) ease of access to the internet, 2) widespread use of social media and 3) the resultant changes in consumers' behaviour in terms of their banking relationships.

The financial services industry has also experienced a high number of competitor entrants in the past decade. This refers particularly to digital and ecosystem banks, which require no physical channels. This is a cost-effective business model customers benefit from lower banking fees, which means they now value the services that they receive from existing banks compared to the new digital banks, hence becoming more price sensitive. New competitors, such as mobile money operators and new technology-based financial services, have also emerged with the dawn of the internet and sophisticated technologies.

Legacy banks have high cost structures, mainly due to their physical distribution channels (such as branches and automated teller machines [ATMs]) and staffrelated costs accumulated in the past. This impedes their competitiveness. According to Haas (2015), banks in Southern Africa only serve the top 40\% - 50\% of the population. This is mainly due to the cost of servicing such clients under the current banking structure and with currently available products.

Nitsure (2003) outlines the opportunities afforded by e-banking and indicated that the main opportunity is the reduction of delivery and transaction costs for banks. This enables them to provide cheaper services.

According to Rizzi and Taraporevala (2019), as banks introduce more digital channels, and as more customers migrate over to these channels, running costs decrease. This is due to the reduced physical footprint and the repurposing of existing branches for other complex services that generate revenue. For this reason, banks intend to utilise digital channels more frequently - because, ultimately, they will benefit from the cost savings associated with fewer physical channels (Hoehle, Scornavacca \& Huff, 2012). To this end, bank marketers are tasked with persuading customers to either start using digital channels or to use them more frequently.

Marketers and business leaders are thus introducing customer-centric pricing techniques, such as price promotions and rewards, as a way of increasing sales and utilisation of their banks' products (for example: credit cards and internet banking services) (Aydinli, Bertini \& Lambrecht, 2014; Magatef, \& Tomalieh, 2015). Zakaria, Rahman, Othman, Yunus, Dzulkipli and Osman (2014) agree that, in response to intense competition, retail businesses should introduce price promotions and other loyalty initiatives, with the aim of increasing sales and retaining customers who may be tempted to switch to competitors.

Arce-Urriza, Cebollada and Tarira (2017) indicate that a price promotion (defined by Blattberg, Briesch and Fox [1995] as a reduction of the price of a service or product, for a given period of time) is one of the key marketing tools used by retailers to persuade customers to purchase and use more of their products. The aim of this is to increase sales and retain customers.

Following these trends, Lymperopoulos et al. (2013) argue that financial services providers are constantly searching for creative and innovative competitive advantages to avoid losing customers to their competitors. The reason is that, in order for banks to stay in business, they rely on long-term relationships with their customers and on the regular deposits that they make into their current and cheque accounts (Lymperopoulos et al., 2013).

Due to the observable similarities in their offerings, banks are currently more focused on the services and additional value-adds that they offer customers than on their financial products (Chavan \& Ahmad, 2013). This means that bank executives place a greater strategic focus on customer service ratings and emotional satisfaction (Chavan \& Ahmad, 2013).

Arce-Urriza et al. (2017), Grewal et al. (2011), and Zoellner and Schaefers (2015) all confirm that price promotion is the most common tool for marketers to increase sales and attract new customers, and that banks commonly use price promotions as a competitive strategy for retaining customers and promoting utilisation of their channels. The use of price promotions by banks is advocated by Aydinli et al. (2014), Lymperopoulos et al. (2013), and Ricci and Caratelli (2013), as their studies identified pricing as one of the key reasons for customer switching. In addition, the authors found that the importance of pricing in the customer's switching intention has increased in recent years.

While there is ongoing debate about the long-term effects of price promotions, the general consensus in the literature was that price promotions increase sales and activity for retailers in the short term (Arce-Urriza et al., 2017; Blattberg et al., 1995; Grewal et al., 2011; Zoellner \& Schaefers, 2015). The aim behind this study was: 1) to determine the impact that price promotions have on the utilisation of banking channels by bank customers and 2 ) to offer insights on how to improve existing price promotions through promotion message framing.

### 1.2 Research Problem Motivation

The aim behind this research was to understand the impact that price promotions have on customer channel utilisation in retail banking and to provide empirical evidence for this. For the purposes of the study, 'price promotions' is defined as the reduction or modification of pricing attributes to benefit customers in the short term. This view is supported by Aydinli et al. (2014), who define price promotions as giveaways that incentivise customers to make purchases or to take advantage of offers that they would not pay attention to under normal circumstances. Ahmetoglu, Furnham and Fagan (2014) define price promotions as offers that have a short tenure, which implies scarcity or quality.

In the previous section, pricing was identified as an important factor influencing the behaviour of customers in retail banking. As a result of intense competition in the financial services industry, banks are now exploring price promotions as a unique competitive advantage that helps them to retain customers and promote self-service channel utilisation.

Bocchialini, Ielasi and Rossolini (2015) share the sentiment that the financial industry is challenged by price wars among competitors and that pricing now plays a key role in influencing what banking channels to use. Arce-Urriza et al. (2017) reinforce this viewpoint - they evidence that pricing is a key decision point for current account holders in terms of the choice of who to bank with and which banking channel to use.

According to the South African Loyalty Landscape Whitepaper (2018), more than three-quarters of active customers in the South African market use or benefit from price promotions and rewards. This has become the norm in industries like retail clothing and banking. The Standard Bank 'UCount' and FNB ‘eBucks' retail banking rewards are two of the most popular loyalty programmes in South Africa. (There are 12 commonly used ones in banking.)

Lymperopoulos et al. (2013) argue that never before has it been this important for banks to offer price-oriented promotions that provide value and promote loyalty in channel usage. According to the authors, customers' perceptions of fees and service charges are key influencers in their decision about whether to stay with their bank/continue using a specific channel or to change their bank or channel in the retail banking industry. Aydinli et al. (2014) and Ricci and Caratelli (2014) support this viewpoint. Lymperopoulos et al. (2013) have, however, argued that several studies have not focused on the impact that price satisfaction (customers' contentment with pricing) has on the customers' performance and thus whether or not customers change their purchasing patterns.

Zoellner and Schaefers (2015) position prospect theory as the theoretical background for the generalisation that price promotions influence customers' behaviour. (This idea was introduced above.) They argue that this positive reaction is based on the prospect theory, which assumes that when customers weigh losses against gains, they see the losses as being higher than the equal gains.

Gamliel and Herstein (2011) tested and disproved the original 'loss aversion' concept of prospect theory, particularly in terms of money. The authors recommend future research to empirically confirm either the original assertion of the prospect theory or the results shown by Gamliel and Herstein (2011), which will help marketers in framing their promotion messages. This is important for bank marketers, as they are increasingly introducing price promotions to encourage customer utilisation of selfservice channels, given the importance of migrating customers over to self-service channels.

The motivation behind this study was to provide empirical evidence of, and insight into, the role of price promotions on the utilisation of channels, during and after the promotion in question, in the retail banking sector. This will provide valuable insights for bank executives and the marketers who design and approve price promotions to persuade them to invest in price promotions and to assist them in designing or enhancing the promotions.

The aim of this study is to prove or disprove the premise that price promotions result in an increase in customer utilisation in the retail banking industry and the prospect theory prediction that says negatively framed promotion messages are more impactful than positive goal-framed promotion messages. The study also intends to help marketers identify the most impactful type of message framing in price promotion.

### 1.3 Research Objectives and Scope

### 1.3.1 Research Objectives

The research study is guided by the following objectives:

Objective 1: The first objective of the study is to determine the role of price promotions on customer utilisation of channels in retail banking. Do price promotions increase customer channel utilisation?

Objective 2: The second objective is to understand the role of message framing in price promotions and to identify which of the four (tested) message framings has the most impact on customer channel utilisation. The second objective also aims to provide empirical evidence that proves or disproves the original prediction from prospect theory's 'loss aversion' principle.

### 1.3.2 Research Scope

The main aim of this research study is to understand the relationship between price promotions and customer utilisation of banking channels. The geographical scope of the study is retail banking in Lesotho, represented by Standard Lesotho Bank. The bank commands over $70 \%$ of the retail banking market share in the country. The study follows an experimental approach.

The scope of the study was limited to the following terms, as used in retail banking:

Price promotion: Blattberg et al. (1995) define price promotion as a reduction in the price for a service or product, temporarily. Similarly, Zoellner and Schaefers (2015) define price promotion as the lowering of prices for a defined tenure.

Customer channel utilisation: ‘Customer channel utilisation' refers to the number of transactions that a customer performs using a certain channel. The number of transactions performed by the customer is measured before and after launching the price promotion for the promoted channel.

Prospect theory: Prospect theory proposes that when customers weigh losses against gains, the losses are perceived to be higher than the equal gains (Jones, 2007; Kahneman \& Tversky, 1979; Zoellner \& Schaefers, 2015).

Message framing: This refers to the different ways in which an objectively similar message can be presented or displayed (Choi et al. 2013; Gamliel \& Herstein, 2011; Jones, 2007).

### 1.4 Report Structure

The research report is structured as follows:

The first chapter provides background to the research problem, discusses the motivation for the research, and highlights the research objectives and scope. The literature review in the second chapter introduces key concepts from the literature, the definition and application of price promotions in retail banking, and the theoretical background to the study.

Chapter 3 presents the research hypotheses that guided the study. Chapter 4 discusses the chosen research design and methodology for the study.

In Chapter 5, the findings of the research are presented per hypothesis discussied in Chapter 3. In Chapter 6, the results from Chapter 5 are discussed, per the research objectives stated in Chapter 1 and in alignment with the theory discussed in Chapter 2.

The final chapter, Chapter 7, highlights the main findings of the study. Findings are correlated with their implications for bank executives and marketing managers. The chapter concludes with a discussion of the limitations of the study and suggestions for future research.

A list of all consulted references is then provided in Chapter 8. All additional material that is relevant to the study can be found in the 'Appendices' section at the end of the paper.

## Chapter 2: Literature Review

### 2.1 Introduction

The aim of this study is to understand the role of price promotion on customer channel utilisation in retail banking, and the impact of framing price promotions differently. More specifically, the study explores how this affects the channel utilisation of retail banking customers. Chapter 2 discusses the findings from the literature consulted during the study, specifically as they relate to key concepts in the study. Additional motivation for the study is also provided in the chapter.

In the first section of the chapter, relevant definitions are given. This is followed by a discussion of the history and application of price promotions in organisations, and their necessity in business strategy.

Insights with regard to the application of price promotions in retail banking are discussed, which furthers the motivation for this study. This section highlights the need for price promotions in retail banking, mainly with regard to increased competition in the financial services industry as a result of new entrants in the industry. (New entrants have less costly service models, which are based on internet services.) Banks are currently limited in their competition by the high cost structures related to physical channels. As a result, many of the legacy banks have embarked on a drive to migrate customers over to cheaper channels.

The topics of 'customer banking channels' and 'the use of price promotions to migrate customers' are discussed in greater detail, below. The influence that pricing has on customer channel utilisation is also discussed.

In the third part of the literature review, the theoretical framework underpinning price promotions is discussed. The section also explores how this influences the effectiveness of price promotions.

In the theoretical discussion, the concept of 'prospect theory' is discussed, in detail, along with the related concept of 'message framing'. This is followed by a discussion of the different types of message framing related to price promotions, namely 'gain', 'attribute' and 'risky action' framing. The extent to which the framings influence the effectiveness of price promotion is examined.

### 2.2 Price Promotions

Price promotion was defined by Blattberg et al. (1995) as the temporary price reduction of a service or product charge. Similarly, Ahmetoglu et al. (2014) defined price promotions as price offers that have a short tenure, implying scarcity or quality. Aydinli et al. (2014) defined price promotions as giveaways that incentivise customers to make purchases or to take offers that they would not have, under normal circumstances. Lastly, Zoellner and Schaefers (2015) defined price promotions as either a reduction of the price of a product or an increase in the quality of the product, without increasing the price.

Arce-Urriza et al. (2017) and Blattberg et al. (1995) demonstrated that most retail businesses assign a significant share of their marketing budget to price promotions. Grocery stores and service providers spend more money on promotions than on traditional marketing. The airline industry, for example, relies on price discounts to increase the number of seats occupied per flight, while financial institutions use price promotions and rewards to promote usage of their different channels (Zoellner \& Schaefers, 2015). Price promotions were singled out in several studies as one of the marketing instruments that is used by most marketers to increase sales and channel utilisation and to attract new customers (Arce-Urriza et al., 2017; Grewal et al., 2011; Zoellner \& Schaefers, 2015).

According to Bayer and Ke (2013), price promotions are part and parcel of any market or industry. The authors argued that price promotions take different formats, such as price discounts, purchase coupons, price rebates or 'everyday lowest prices' offers - the aim behind each being to increase sales or utilisation of channels (and, ultimately, business profits). For customers, price promotions represent an economical savings; they encourage customers to test new products, and they give them access to premium products (Lee \& Tsai, 2014).

For retailers and organisations that issue price promotions, expected benefits are an increase in short-term sales, an increase in channel utilisation, customer retention and attraction of new customers (Lee \& Tsai, 2013). Retailers regard price promotion as the simplest, most straightforward and fastest way of increasing utilisation, as it encourages customers to take a certain action in order to receive certain benefits (Aydinli et al., 2014).

The literature associated price promotion with an increase in sales or activity (utilisation) for retailers in the short run (Arce-Urriza et al., 2017; Blattberg et al., 1995; Grewal et al., 2011; Zoellner \& Schaefers, 2015). Aydinli et al. (2014), Lee and Tsai (2013), and Zoellner and Schaefers (2015) argued that price promotions tend to have long-lasting effects on customers - once a customer benefits from lower prices, they will always expect it to be 'part of the deal'.

Price promotions can therefore be used to influence customers' behaviour or to change it entirely - to the business's advantage. Business marketers can use them to nudge their customers towards certain desired outcomes, such as migrating over to cheaper and more convenient digital channels, in the case of a large retail bank with costly physical channels. In the following section, the application of price promotions in the context of retail banking is discussed.

### 2.2.1 Price Promotions in Retail Banking

According to Lymperopoulos et al. (2013), rivalry between financial services providers has increased due to greater price transparency. The transparency is a result of easier access to the internet, greater access to social media, and the resultant change in customers' behaviour towards banking relationships. Retail banks are mainly concerned with the management of their customers' financials and the provision of products and advisory services to cater to their various needs (Chavan \& Ahmad, 2013).

Banks provide customers with transactional accounts, known as cheque or current accounts, and lending facilities such as mortgages, credit cards and vehicle finance facilities. In addition, they offer services such as financial advisory, wealth management, and relationship banking.

The banking sector offers similar products and services across all continents. For this reason, customers no longer look only to the products and services offered when making a decision about who to bank with.

In addition, the more customers gain access to the internet and social media platforms, the more they are exposed to information about pricing in the financial services industry. The more aware they are, the more capable they are of taking control of their banking relationship by understanding the fees and the terms and conditions of the services that they receive (Aydinli et al., 2014; Haas, 2015; Lymperopoulos et al., 2013).

The financial services industry has also experienced a high number of competitor entrants in the past decade. This refers particularly to digital and ecosystem banks, which require no physical channels. This is a cost-effective business model customers benefit from lower banking fees, which means they now value the services that they receive from existing banks compared to the new digital banks, hence becoming more price sensitive.

This evolution of the financial services industry has negatively impacted the banks' ability to retain customers and to create long-lasting relationships with them. For banks, creating long-lasting relationships with customers is currently the main focus, as this will result in business continuity and sustainable growth. Banks also benefit from the cheap funding that comes from the funds parked in customers' current accounts (Clemens, Gan \& Zhang, 2010).

Clemens, Gan and Zhang (2010) agreed that banks should indeed build long-lasting relationships with their customers, which will help sustain them in the current competitive environment, as their profitability will come more from retaining customers than acquiring new ones. The more they retain customers, the less pricesensitive they become, and the more margins they are able to make from them. Pricing is one of the main factors affecting retention in the financial services industry.

Due to changing customer behaviours, increased competition in the retail banking industry, and the banks' need to retain customers for longer, Lymperopoulos et al. (2013) argued that never before has it been this important for banks to launch and enhance customer-friendly strategies, like price promotions and rewards programmes. The purpose behind these is retaining existing customers and acquiring new ones.

Bocchialini et al. (2015), Clemes, Gan and Zhang (2010), and Meyer-Waarden and Benavent (2006) highlighted pricing, particularly for transactional accounts, as the key factor influencing customer satisfaction and a customer's decision about whether or not to stay with a certain bank. According to Ricci and Caratelli (2014), customers decide who to bank with and which channels to utilise based on factors like pricing or service charges, the friendliness of staff, the reputation of the bank in question, and the availability of credit facilities.

Ricci and Caratelli (2014) also showed that the importance of pricing in choosing a bank or a bank channel has improved compared to other attributes, mentioned above. In their study to determine the factors that influence switching behaviour, Clemes et al. (2010) concluded that pricing and service level have a noteworthy influence on the banking relationship. Chavan and Ahmad (2013) also acknowledged pricing as an important determinant of customer satisfaction in retail banking.

The emergence of new technology-based financial services and new banks that have fewer physical channels has created a challenge for large legacy retail banks, according to Haas (2015). The smaller, newer banks offer everyday lower prices; this is due to their cost structure, which is mainly technology self-service channels (this does not apply to larger retail banks, which have branches) (Haas, 2015). Due to the change in the landscape of the industry, competition has increased even more for financial services providers. This is particularly true for large retail banks, which commonly have high cost structures; pricing (service fees and charges) for these banks has become the key competitive lever to nudge customer behaviour (Aydinli et al., 2014; Campbell \& Frei, 2010; Rizzi \& Taraporevala, 2019).

Large retail banks are characterised by a large physical footprint, comprised of branches, ATMs and numerous employees; this increases their overhead costs, which increases the costs of services and transactions for the customer. The effect of these high transaction costs is that more than $50 \%$ of the population in Southern Africa is not currently able to bank (Calisir \& Gumussoy, 2008; Campbell \& Frei, 2010; Haas, 2015; Rizzi \& Taraporevala, 2019).

Commercial banks have therefore introduced electronic self-service channels, commonly referred to as 'digital channels', with the aim of continually migrating customers from expensive physical channels to cheaper digital ones. This reduces delivery and transaction costs, as customers are served in a more affordable manner. The cost reduction promise of migrating customer transactions over to digital channels means that banks are tasked with increasing utilisation and the number of transactions by customers on digital channels. Bank marketers are now challenged with increasing utilisation of their digital channels - they must influence customers to perform their transactions on digital channels (Haas, 2015; Rizzi \& Taraporevala, 2019).

Several studies (Aydinli et al., 2014; Bocchialini et al., 2015; Lymperopoulos et al., 2013; Ricci \& Caratelli, 2014) have concluded that pricing indeed plays a critical role in retail banking customer satisfaction. The aim behind this study was to understand the role that price promotions have on customers' utilisation of banking channels, on other desired behavioural changes and, thus, on whether customers increase their channel utilisation. Aydinli et al. (2014) confirmed the need for this study in their recommendation for future research to empirically determine the extent to which discounts and promotions influence customer channel utilisation.

A key drawback of price promotions is an increase in customer price sensitivity, which results in an expectation, on the part of the customer, that prices will constantly be reduced; this would ultimately result in lower profit margins for the business (ArceUrriza et al., 2017; Blattberg et al., 1995; Grewal et al., 2011; Zoellner \& Schaefers, 2015). Managers must find new ways of managing the impact of price promotions on the profit margins of the business while also achieving their sales targets using their marketing budget. Framing of price promotions promises to address some of these issues (Alavi, Bornemann \& Wieseke, 2015).

### 2.2.2 Price Promotions and Customer Banking Channels

Haas (2015) pointed out that banks in Southern Africa have only managed to bank the top $40 \%-50 \%$ of the population, while most of the population is unbanked. This is due, mainly, to the cost of servicing such clients in the current banking channels and with current banking products. In the past, financial institutions only offered services through three key channels: the branch (brick and mortar), ATMs and call centres (Calisir \& Gumussoy, 2008).

The accessibility of online/internet and network-based self-service channels, currently offered by retail banks, means that the quality and speed of services has changed drastically over the years. These channels offer customers convenience and the flexibility to access banking services and perform transactions from anywhere.

According to Nitsure (2003), one of the main opportunities associated with an increase in the use of e-banking is a reduction in the delivery channel and transaction costs for banks. This means that customers are served in a faster and more affordable manner, at the location of their choice. Campbell and Frei (2010) presented online self-service channels as a complement to physical self-service channels, like ATMs, which are becoming increasingly more expensive to maintain.

Campbell and Frei (2010) proposed that with extensive adoption, the convenient online-based platforms will substitute the old, costly physical channels. With customers performing more of their banking activities online, their dependency on the more costly physical channels will likely continue to decrease, thus reducing the cost of serving customers (Campbell \& Frei, 2010).

The authors found that even though banks originally introduced online self-service channels (such as internet banking and card payments) to reduce the servicing costs of branches, due to the convenience offered by these channels, customers who adopt these channels tend to be more attached to their banks and are not likely to switch. This results in increased transaction volumes per client, hence promoting the bank's customer retention mandate (Campbell \& Frei, 2010).

According to Rizzi and Taraporevala (2019), as banks introduce more digital channels, and as more customers migrate over to these, running costs decrease for the banks. This is due to the reduced physical footprint and the repurposing of existing branches and other physical channels for other complex services that generate revenue.

Xue, Hitt and Chen (2011) added that, due to the increased pressure for legacy retail banks to cut costs and improve their service models, they are increasingly introducing and pushing for the adoption of self-service channels, as the literature has suggested that online service channels offer costs savings and an improved customer experience. The closer the transaction processing infrastructure is to the customer (and the more it is owned by the customer), the cheaper it is for banks to process such transactions; mobile banking will thus cost less than ATM banking, which costs less than a transaction at a branch (Xue et al., 2011).

Banks (particularly large retail banks) are characterised by high costs of staff and premises. In implementing and driving the adoption of online self-service channels, banks intend to reduce or replace the high variable labour and premises costs with the once-off cost of technology assets (Shaikh \& Karjaluoto, 2016). For these reasons, then, banks are looking to increase the utilisation of self-service channels (that is, the number of transactions or services done through these channels) so that they can ultimately reap the benefits of saving costs on the physical channel footprint and labour (Hoehle et al., 2012). To this end, bank marketers are faced with the challenge of influencing customers to utilise or increase their utilisation of digital selfservice channels in order to achieve their anticipated channel utilisation volumes, which will enable the banks to save costs and increase their revenue.

In the banking literature above, pricing was found to be a key element affecting customer channel utilisation in retail banking (Aydinli et al., 2014; Bocchialini et al., 2015; Lymperopoulos et al., 2013; Ricci \& Caratelli, 2014). Isabella, Pozzani, Chen and Gomes (2012) confirmed this by acknowledging price as one of the key variables that influences a customer's purchasing decision. When a price is discounted, the perceived value of the product or service increases.

Isabella et al. (2012) suggested that this change in the perception of value, on the part of the customers, is influenced by the way in which the information or offer is presented. They refer to this as the 'framing effect'. Similar to message framing, the premise is that customers may perceive the value of a promotion or campaign based on the way it is presented, regardless of the objective context of the campaign or promotion (Alavi et al., 2015; Zoellner \& Schaefers, 2015).

### 2.2.3 Framing of Price Promotions

One way to resolve the question of the negative impact of price promotions is to view how a price promotion can be positioned. Price promotions with the same benefits can be presented in different ways to influence customers' perceptions of the promotions, even though they bear the same magnitude of the benefit or loss (Alavi et al., 2015; Zoellner \& Schaefers, 2015). According Yan, Dillard and Shen (2012), message framing means persuasion, either by presenting the benefits or advantages of taking a certain action (known as 'gain framing') or by presenting the drawbacks and disadvantages of taking a certain action. The latter is referred to as 'loss message framing'. The authors believe that the question of which of the two framings is more impactful is still currently very topical in quantitative research; therefore, more research on the topic is welcome.

This concepts of 'gain framing' and 'loss framing' of messages are rooted in the original 'loss aversion' principle of prospect theory, coined by Kahneman and Tversky (1979). According to Seo, Dillard and Shen (2013), in order for campaigns or promotions to be effective, marketers should consider improving the messaging that emphasises the objective content of the promotion message. This concept builds onto the message framing concept - that the language and presentation of the promotion message can be tweaked to emphasise the benefits or disadvantages of responding to, or failing to respond to, the promotion. The framing of a message affects how it is viewed, which affects how the message is evaluated (while the content of the message remains the same) (Loa et al., 2013).

When a price is discounted, the perceived value of the product or service increases. Isabella et al. (2012) suggested that a customer's perception of value is influenced by the way in which the information or offer is presented. The authors referred to this as the 'framing effect'. This is similar to message framing - it suggests that customers may perceive the value of a promotion or campaign based on the way it is presented, regardless of the objective context of the campaign or promotion.

Choi, Lee and Ji (2012) provided an example, namely nine-ending pricing (where, for example, 'R9,99' is used instead of ' $\mathrm{R} 10,00$ '). People are sensitive to prices; a small reduction in price, from $\mathrm{R} 10,00$ to $\mathrm{R} 9,99$ creates the perception of a lower price, in customers' eyes. The researchers demonstrated that this approach leads to more sales. This supports the message framing notion that a combination of price promotion and appropriate message framing, as shown in Table 1 below, enhances marketing effectiveness (Alavi et al., 2015; Barberis, 2013; Schmidt \& Zank, 2012).

Table 1: Gain- and Loss-Framed Promotion Messages

| Price Promotion | Message Framing |
| :--- | :--- |
| M20 off | Loss framed: Lose M20 if you don't take up the offer. |
| M20 off | Gain framed: Save/gain M20 if you do take up the offer. |

### 2.3 Theoretical Framework for Message Framing: Prospect Theory

Chen, Monroe and Lou (1998), Isabella et al. (2012), and Seo et al. (2013) argued that retail price promotions can be implemented in different ways, as per Kahneman and Tversky's (1979) original findings on prospect theory. These findings formed the theoretical foundation of this study. Zoellner and Schaefers (2015) positioned the prospect theory by Kahneman and Tversky (1979) as the theoretical background for the generalisation made by Arce-Urriza et al. (2017), Blattberg et al. (1995), Grewal et al. (2011), and Zoellner and Schaefers (2015), namely that price promotions are the most adopted and most effective means of increasing sales and utilisation for retailers.

Zoellner and Schaefers (2015) argued that this positive reaction is based on the prospect theory, which proposes that when customers weigh losses against gains, losses are perceived to be higher than equal gains. This is mainly due to the fact that a loss has a negative connotation, and it affects the perception of a person more than an equal gain does. Kahneman and Tversky (1979) introduced this concept as a loss-aversion aspect of the customer's decision making, which implies that customers are more psychologically willing to avoid a loss than to acquire a gain of equivalent value. Customers therefore demonstrate risk-seeking behaviour when they perceive loss and demonstrate risk-averse behaviour when they perceive gains.

Zeisberger, Vrecko and Langer (2010) positioned the prospect theory as the most accepted theory explaining the decision-making process when perceived risk is involved for customers. Barberis (2013) added that, after 30 years, the prospect theory is still the most widely acknowledged explanation for how people make decisions in uncertain environments. It has been referenced and cited over 10000 times. The theory has been applied in several fields of study and practice, such as health, finance, customer behaviour and politics (Barberis, 2013; Schmidt \& Zank, 2012; Ganzach \& Karsahi, 1995).

Four key components help to describe a person's behaviour when he or she makes a high-risk decision. Firstly, it is argued under prospect theory that every decision is based on a reference point. The theory originally argued that people evaluate the gain or loss decision compared to some comparison measure and not absolutely, based on their wealth or from a balance point of view. Thus, the change from one reference point to another is valued not so much on the value or magnitude of the change but according to the perspective of the increase or reduction, from a certain reference point (Barberis, 2013; Kahneman \& Tversky, 1979).

The second key component is the loss aversion of people who make decisions when faced with potential risks. This implies that people are more likely to feel losses than they are to feel gains of a similar magnitude. Thus, the value assigned to a gain of R100,00, for example, is perceived to be lower than the value assigned to a loss of R100,00. (Kahneman \& Tversky, 1979; Ganzach \& Karsahi, 1995) Another example, from a gambling point of view, is that a loss-averse individual will focus on avoiding
a R100,00 loss in their gambling instead of focusing on the potential of winning R110,00.

Prospect theory's third key component is referred to as 'diminishing sensitivity'. 'Diminishing sensitivity' means that a person's sensitivity towards gains or losses decreases as the amount involved decreases, and as the percentage of the increase or decrease gets smaller.

For example, someone who has R500,00 and the opportunity to gain another R500,00 or to lose their existing R500,00 will have a different reaction to someone who has R5 000,00 and the opportunity to gain or lose R500,00 (Barberis, 2013; Kahneman \& Tversky, 1979). The fact that value of utility is perceived to be more when it is a loss than when it is a gain has been substantiated by other studies, as confirmed by Abdellaoui, Bleichrodt and Paraschiv (2007).

The fourth and last key component of prospect theory is probability weighting. This is not discussed in detail, here, due to its technicality.

Even though prospect theory is still widely used to describe decision making under risk, some studies question its applicability in the real world. This is because the stakes are often higher in the real world than in a laboratory/experimental setting (Barberis, 2013).

### 2.3.1 Prospect Theory and Pricing Promotions

The literature review, so far, has acknowledged price promotion as a tool that is widely accepted and used by marketers, across industries, to increase sales (ArceUrriza et al., 2017; Blattberg et al., 1995; Grewal et al., 2011; Zoellner \& Schaefers, 2015). Bayer and Ke (2013) also supported the notion that price promotions have a high potential of increasing the demand for a product or service. However, they concluded that it is not only the price savings that influence the increase in demand but also the way in which the price promotion is presented. This influences the customer's judgment of the gain or loss resulting from the transaction. The presentation of the price promotion therefore influences its take-up.

The prospect theory proposes that when a person makes a decision under uncertainty, his or her evaluation of the problem is influenced by how the problem is described or framed. The evaluation is influenced mainly by comparison to a certain point of reference (Weisstein, Asgari \& Siew, 2014). When the outcome of the decision is compared to the point of reference, it is classified as a loss or gain; a change in the reference point thus changes the evaluation of the loss or gain (Weisstein et al., 2014).

According to Jones (2007), the prospect theory lays the foundation for the concept of 'framing', which means that a reaction to events or stimuli, such as price promotions, can differ based on the way in which the promotion is framed (presented). This means that the customer's desire to take up a price promotion offer can increase or decrease, based on how the objectively equivalent attribute of a price promotion is framed or presented (Barberis, 2013; Schmidt \& Zank, 2012).

The 'loss aversion' aspect of prospect theory suggests that people are more responsive to messages that are framed as a loss than to those framed as a gain. Gain-framed messages are designed to emphasise the positive and advantageous side of taking a particular action, while loss-framed messages highlight the loss that will be accrued if a certain action is not taken (Kahneman \& Tversky, 1979; Ganzach \& Karsahi, 1995).

The foundation of prospect theory's 'loss aversion' concept is that customers are more prone to taking up promotions that decrease their costs for the transaction in question than promotions that increase their gains from performing the transaction. Thus, when a promotion is presented as either a loss or gain, based on the prospect theory, the expectation is that people will avoid risk when faced with a gain-framed promotion and that they are risk prone when dealing with a negatively framed promotion (Alavi et al., 2015; Barberis, 2013; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010). This means that customers are willing to pass on an offer when the offer/promotion is presented as a gain; however, if the same promotion is presented as the avoidance of a loss, they are less willing to pass on it (Barberis, 2013; Schmidt \& Zank, 2012). Based on this theory, a price promotion that is a direct price reduction reduces the perception of loss/the cost of receiving a product or transacting through a channel, while the comparable gain remains
constant, as the customer receives the same value for the service or product, at a cheaper price.

With regard to the 'loss aversion' concept of the prospect theory, customers are usually more willing to take advantage of a direct price reduction promotion offer than one where the product or service value is enhanced but still sold at the same price, as shown in Table 2 below. Therefore, the extent to which the customer is likely to take up a price promotion offer is not only determined by the depth of the offer, and thus the magnitude of the offer, but also by how the promotion message is presented (Alavi et al., 2015; Barberis, 2013; Jones, 2007; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010).

Table 2: Loss-Aversion Framing of Discuounts

| Loss-Aversion Framing | Price Discount |
| :--- | :--- |
| Gain framed (increased benefit) | Enhanced product for same price |
| Loss framed (reduced price) | Same product with reduced price |

### 2.4 Types of Message Framing

Gamliel and Herstein (2011) described framing from a positive and a negative point of view. Positive framing emphasises the benefits of price promotion, while negative framing emphasises the risks (this is in support of the prospect theory's 'loss aversion' principle). In addition to positive and negative framing, they introduce three types of framing: 'goal', 'attribute' and 'risky choice' framing.

### 2.4.1 Goal Framing

According to Gamliel and Herstein (2011), goal framing relates to loss aversion (regarding the prospect theory). It refers to the framing of price promotions either positively, with a focus on the gains and benefits to the customer if they perform a certain action, or negatively, with an emphasis on the negative consequences of not performing a specific action (like a purchase or a transaction through a certain channel). As an example, a bank marketer who is trying to promote card usage for payment can frame the promotion message either to emphasise the benefits that customers will receive when they use the card or to highlight the losses that they will incur for not using their card.

In their study, Gamliel and Herstein (2011) found inconsistent results to the premise made above. This study will provide empirical evidence to support the original premise made by Kahnemanand and Tversky (1979) or to disprove it in alignment with Gamliel and Herstein (2011).

### 2.4.2 Attribute Framing

Attribute framing suggests that an event or object is assessed favourably and is preferred if it is framed in a positive tone instead of a negative one. The technique is used more for food and durable products than for consumer products (Gamliel \& Herstein, 2011). As an example, a fruit juice can be presented either as ' $80 \%$ fruit pulp' or as ' $20 \%$ water and additives'. Attribute framing suggests that consumers will be more responsive to knowledge of the $80 \%$ fruit than of the $20 \%$ water. This type of message framing was not tested in this study, as the literature suggested that it is more appropriate for food products.

### 2.4.3 Risky Action Framing

The third type of framing that Gamliel and Herstein (2011) discussed is risky action framing, which means that people generally prefer an option that gives them static savings to one where there is a probabilistic choice of unknown savings. On the other hand, if the loss is certain and savings are determined by probability, people will prefer the probabilistic option.

Choi et al. (2013) described risky action framing as risky discounts or price promotions that are offered in a similar manner to the lottery, where benefits are determined by chance. The customer believes that he or she will benefit from performing the required action, but it is not clear how long this will take or how many times the action must be taken. Therefore, the customer continues to take the required action in the hopes that the next time they do so, they will receive the benefit. For example, Standard Bank runs a promotion targeted at acquiring new customers. The promotion requires potential customers to open a current account at any point in the year, in order to stand a chance of winning one of R10 million giveaways. These types of price promotions are gaining in popularity with retailers due to the associated cost savings when compared to price reduction per transaction (Choi et al., 2013).

Alavi et al. (2015) added that price promotions where the benefit is determined by chance are indeed becoming more prevalent. Two examples of this are the lottery and 'scratch and save' types of promotions, which are used by retailers. In the case of the latter, the customer wins a benefit based on whether their purchased item has the winning bar code. Coca-Cola provided an excellent example of this. The company introduced a campaign where consumers could win if they found the winning barcode under their cooldrink bottle cap.

A second version of this type of promotion can be found in supermarkets: they sometimes run competitions where customers stand the chance of winning if their spending surpasses a certain amount or when they purchase certain items (Alavi et al., 2015). The increase in these type of discounts is attributed to their perceived cost effectiveness - the same discount can be used to attract more customers while also keeping negative after-promotion effects to a minimum. According to Alavi et al. (2015), more research is needed for a deeper understanding of risky action discounts or promotion framing, and the different variations thereof.

### 2.5 Conclusion

The most widely accepted definition of price promotions was highlighted in this chapter, along with a description of how the various price promotions work in different industries. The literature confirmed that price promotions are one of the most popular marketing instruments used by marketers to increase sales or activity and to attract new customers (Arce-Urriza et al., 2017; Grewal et al., 2011; Zoellner and Schaefers, 2015).

The application and workings of price promotions in retail banking were addressed in the chapter. The need for price promotions in retail banking was also explored. This need exists mainly because, when banks migrate their customers over to digital channels, high-cost pressures are relieved, and competitiveness is increased. The literature highlighted pricing as the main contributor to the choice of banking channels made by customers, and price promotions were presented as the most suitable behavioural change driver for retails banks (Aydinli et al., 2014; Bocchialini et al., 2015; Lymperopoulos et al., 2013; Ricci \& Caratelli, 2014).

The literature also discussed the prospect theory from economic psychology and, in particular, the 'loss aversion' aspect of the theory, as defined by Kahneman and Tversky (1979). The prospect theory is positioned as the foundational theory of price promotions. Additionally, the literature review addressed various message framing concepts and concluded that the framing of promotion messages influences the customer's perception of the value of the promotion and how the promotion is evaluated by the audience, regardless of the objective value of the promotion (Jones, 2007). Gamliel and Herstein (2011) built onto loss-aversion framing by introducing three types of framing for price promotions namely 'goal', 'attribute' and 'risky action' framing.

The aim behind the study is to contribute to the marketing literature, particularly in the areas of financial services marketing and economic psychology, by providing empirical evidence of the causal relationship between price promotions and retail banking customer channel utilisation. The study also aims to provide insight into the type(s) of framing that produce(s) the best results in the retail banking industry. Lastly, the study aims to prove or disprove the 'loss aversion' theory as it relates to decision making by customers.

## Chapter 3: Research Hypothesis

The literature review, above, highlighted price promotion as the most adopted sales and marketing tool for boosting sales and increasing business performance. Economic psychology's 'prospect theory' was identified as the foundational theory for price promotions. Particular attention was given to the 'loss aversion' aspect of the prospect theory, as defined by Kahneman and Tversky (1979).

In addition, the framing of promotion messages was discussed. Framing affects how a promotion is evaluated by the audience, regardless of the objective value or content of the promotion (Jones, 2007). The three different types of message framing or price promotion, as discussed by Gamliel and Herstein (2011), are 'goal', 'attribute' and 'risky choice’ framing.

The aim behind this study is to contribute to the marketing literature, particularly in the areas of financial services marketing and economic psychology, by furnishing verifiable evidence of the impact of price promotions and message framing on retail banking customers' channel utilisation. Additionally, the study seeks to provide insight into the types of framing that produce the best results in retail banking and to prove or disprove the loss-aversion assertions made by prospect theory in terms of the decision making of a customer, when faced with a promotion.

In order to explore the impact that price promotions, and the framing of those promotions, has on retail banking customers' channel utilisation, the following research hypotheses will guide the study. This will be done with reference to the main research objectives of the study and in conjunction with the literature reviewed in the previous section.

### 3.1 Business Impact

The literature review, above, confirmed that price promotions increase sales. The null hypothesis under the business impact suggests that a price promotion (PP) will not lead to increased customer channel utilisation (CCU) and that customer channel utilisation will present similar behaviour before, during and after a price promotion. The alternative hypothesis states that price promotions (PP) lead to increased customer channel utilisation (CCU).

H10: CCU pp - CCU = 0
H11: CCU Pp - CCU > 0

### 3.2 Goal Framing

Retailers engage in price promotions regularly, to boost their sales and business performance. Gamliel and Herstein (2011), Jones (2007), and Kahneman and Tversky (1979) suggested that retailers can increase the reception and take-up of their promotions by framing their promotions differently. It is argued that customers are responsive to price promotions that are framed to emphasise losses instead of savings. (This argument is linked to the original 'loss aversion' principle in prospect theory.) This is to say that people are generally more concerned with avoiding losses than pursuing savings for the same dollar value.

However, with regard to a similar hypothesis (to determine the validity of this argument), Gamliel and Herstein (2011) found that customers are more prone to positively framed promotions. This hypothesis aims to provide additional evidence, which will either support the new findings by Gamliel and Herstein (2011) or the original 'loss aversion’ premise of prospect theory, by Kahneman and Tversky (1979).

The null hypothesis under the goal framing suggests that a negative goal-framed price promotion (NG) will lead to an increase in customer channel utilisation (CCU) and that it has more impact than a positively framed price promotion. The alternative hypothesis states that a positive goal-framed price promotion (PG) leads to increased customer channel utilisation (CCU) and has more impact than a negatively framed price promotion.

```
\(\mathrm{H}_{2}{ }_{0}: \mathrm{CCU}_{\mathrm{NG}}-\mathrm{CCU}_{\mathrm{PG}}>0\)
\(\mathrm{H}_{1}\) : \(\mathrm{CCU} \mathrm{pg}-\mathrm{CCU} \mathrm{NG}>0\)
```


### 3.3 Risky Choice Framing

As per the above, well-known goal framing of price promotions from a loss/risk or gain point of view, risky action promotion framing is gaining in popularity among retailers. The implication of a risky action framed promotion is that customers may or may not gain from performing a certain transaction. The outcome/gain is determined by chance; therefore, the customer does not know when, or after which transaction, he or she will benefit from the promotion.

The main argument behind risky choice framing is that people generally prefer an option that presents more static savings than one where there is a probabilistic choice of unknown savings. On the other hand, if the loss is certain and savings are determined by probability, people tend to prefer the probabilistic option (Gamliel \& Herstein, 2011).

The null hypothesis under the risky action framing suggests that a risky action framed price promotion, where a customer's gain from performing a transaction is determined by chance (RA), leads to increased customer channel utilisation (CCU) and has more impact than a price promotion with benefits that are known upfront by all (BU). The alternative hypothesis suggests that a price promotion where benefits are static and known upfront by all (BU) will lead to increased customer channel utilisation (CCU). It will also have more impact than a risky action framed price promotion (RA), where a customer's gain from performing a transaction is determined by chance, after he or she performs the transaction.
$\mathrm{H}_{3}: \mathrm{CCU}_{R A}-\mathrm{CCU}_{B U}>0$
$\mathrm{H}_{1}: \mathrm{CCU}_{\mathrm{BU}}-\mathrm{CCU}_{R A}>0$

## Chapter 4: Research Methodology

### 4.1 Philosophy

A research philosophy is as a set of assumptions and values that the researcher bears when conducting research (Saunders \& Lewis, 2012). The main purpose of this research study was to understand the impact that price promotions have on customer channel utilisation. This was achieved by collecting and analysing data to determine the relationship between the two. Therefore, the study followed a cause-and-effect cycle, which is a positivism approach (Saunders \& Lewis, 2012).

### 4.2 Approach

The aim of this research was to discern the role of price promotions and the framing of price promotions on customer channel utilisation in retail banking. Barnham (2015) described a quantitative study as one in which data is collected and analysed to explain what is happening with regard to a subject. This study was designed as a quantitative study to test the relationship between price promotions, the message framing of promotions, and customer behaviour (channel utilisation).

A deductive theory development approach was taken. In deductive theory development, the relationship between the variables is described at the start of the research; research questions and a hypothesis are then designed (Saunders \& Lewis, 2012).

### 4.3 Purpose of the Research Design

This research study was explanatory - it was designed to understand the relationship between a cause and an effect. According to Saunders and Lewis (2018), an explanatory study focuses on explaining why events occur. This study was an explanatory study, as it objective was to understand the impact that a change in pricing or a price promotion has on the channel utilisation of retail banking customers.

### 4.4 Strategy

Price promotions are developed and used in retail banking based on the assumed causal relationship between price promotions and customer channel utilisation. The study aimed at investigating the relationship between a price promotion and the framing of that promotion, and the channel utilisation behaviour of customers.

An experimental method was the most suitable approach for the study. An experimental study highlights the impact that a change in the independent variable has on the dependent variable (Saunders \& Lewis, 2012). In this case, the study intended to understand the impact that a price promotion (a change in price) has on customer channel utilisation.

According to Malhotra (2007), a causal research approach means that researchers aim to test the effect of a change in one variable on other dependent variables. Mitchell and Jolley (2012) argued that the main benefit of an experiment is that it can clearly demonstrate a causal relationship and, thus, how an independent variable influences dependent variables.

According to Gamliel and Herstein (2011), Jones (2007), and Kahneman and Tversky (1979), it is not only the change of the price in a price promotion that influences customers to take up the promotion offer - it also that the way in which the promotion message is framed or presented. Gamliel and Herstein (2011) identified three different framing approaches, namely 'goal', 'attribute' and 'risky choice' framing. The aim behind this study was to validate or invalidate the cause-and-effect relationships proposed by these framing approaches.

In terms of the design of the study, the (goal and risky choice) framings of price promotions were the independent or causal variables. The dependent variable was the customer's utilisation of a specific channel. As a result, the study was designed as a factorial design, shown in Table 3, below, with the goal and risky action framing of price promotions used as the independent (factors) or causal variables, and each having two opposite framings. Attribute framing was not tested, as this type of framing is mostly related to durable goods or food products (Gamliel \& Herstein, 2011).

Table 3: Framing Matrix

|  | Types of Framing |  |
| :--- | :--- | :--- |
| Message framing | Goal framing <br> (negative) | Risky discounts framing <br> (Benefit determined by chance) |
|  | Goal framing <br> (positive) | Risky discounts <br> (Benefit known upfront by all) |

This experimental study had a representative sample of 4 groups of 50 customers, from different segments of retail banking. (The grouping of customers was based on their salary and service model level.) Each group received an announcement of a price promotion (time-limited price reduction) relating to a single type of transaction through a specific channel. The announcements were framed in one of four ways (as per Table 3, above). One of the two groups was exposed to a positive goal-framed promotion, while the other was exposed to a risky choice framed promotion.

The experiment took place in the real world - real transactions were performed, and real spending took place. Customers were expected to participate in the study under their normal living conditions. (This differs from a reflective study where customers accept or decline promotions based on a hypothetical situation.)

The experiment ran over a period of four weeks. Customers were not informed about the experiment. They received the same promotional (bank campaign) messaging that all of the bank's customers received.

At the time of the study, the bank (Standard Lesotho Bank) was in partnership with Game stores to promote grocery combos during month-end. Customers who purchased one of these combos using a Standard Lesotho Bank (SLB) debit or credit card had the opportunity to win 1 of 5 payments of R1 000,00, per month.

The campaign messaging was changed to target the customers who were selected for the experiment - to allow for the testing of risky choice framing. In addition, the bank was promoting card usage (swiping for purchases). Swiping was free (and remains so); thus, there was no charge for performing a transaction with a card for purchases. However, there was a minimum charge for performing an ATM withdrawal.

The bank therefore promoted swiping by advertising that it is free and that customers save when they swipe. The bank had not yet explored advertising that customers lose money when using an ATM instead of swiping their card. The messaging for the campaign was altered for the different groups of customers, to allow for the testing of goal framing of price promotions.

Malhotra (2007) defined external validity as the extent to which the relationship found through causal research can be generalised. In this experiment, customers were expected to participate in the study under their normal living conditions. The external validity of the study was therefore enhanced (Malhotra, 2007).

There was also a need to establish internal validity, given the type of research. Internal validity tests the correctness and accuracy of the experiment to ensure that a change in the independent variable has indeed caused a change in the dependent variable (Malhotra, 2007). This validity is affected by several external attributes, such as an occurrence (like mental or financial stress) that affects participants' thinking (Malhotra, 2007). In this study, these external attributes would have affected the sample groups similarly.

Customers in different treatment groups were a random representation (and a microcosm) of the different types of banking customers. Internal validity was thus enhanced.

### 4.5 Time Horizon

A cross-sectional study format was applied to the research. This means that information was observed in a short time horizon (Saunders \& Lewis, 2012). The experimental study ran between October and November 2019. This approach was taken due to the research time allotted to the MBA. A longitudinal study, where data is collected and analysed over a long period of time, could still be undertaken; this would allow adequate time to assess changes in the variables (Saunders \& Lewis, 2012).

### 4.6 Population

Saunders and Lewis (2012) defined a research population or universe as a complete set of research subjects or objects. The research population in this research consisted of retail banking customers across all segments in Lesotho, between the ages of 24 and 60, who were earning a minimum income of R3 000 per month. The study aimed at understanding how the behaviour of banking customers would change when they were offered price promotions. (Customers earning a minimum income of R3 000 per month were considered transactional customers, while those who earning below this threshold were considered savings customers.)

### 4.7 Unit of Analysis

The unit of analysis was retail banking customers between the ages of 24 and 60, who were earning a minimum of R3 000 per month. In order to qualify as 'participants' in the study, customers had to have transacted through SLB on a regular basis, for six months prior to the study.

### 4.8 Sampling Method and Size

Data on the identified retail banking customers was collected. Two hundred customers were chosen from all the banking customers who transacted in the past six months. The customers were assigned to different experimental groups.

Saunders and Lewis (2012) defined a sample as a subset of the main group. The 200 customers selected for the study represented a sample of over 40000 customers who transacted in the past six months. The sample of customers was selected using a non-probability stratified purposive sampling technique - a technique used by researchers when they know the population or when applying certain criteria to choose the sample for the study (Saunders \& Lewis, 2012).

The researcher selected the bank's primary customers (customers who carry out more than three transactions per month), who are frequent users of the promoted channel.

At the time of the study, the bank segmented its customers according to different qualifying criteria, such as their salary. The following is an example of segmentation: a Private banking customer is required to earn over R100 000, while an Achiever customer can earn R3 000 or less per month. Customers representing all bank segments, from low-income to high-income customers, were included in the study.

### 4.9 Measurement Instrument

This experimental study had a representative sample of four groups of customers in different segments in retail banking. Each group received an announcement of a price promotion (time-limited price reduction) relating to a single type of transaction through a specific channel. These were framed differently for each group.

The experiment ran as a small campaign, with messaging targeted directly towards the selected customers. The sittings were made on the participating customer account, in line with existing campaigns that were set up (at the time) to ensure that customers receive the benefits of the promotions from this study, when they take up the offers.

The price promotion messaging in Table 4 (based on the framing approach discussed above, under Section 4.4 ), was used in the study:

Table 4: Promotion Message Framing

| Type of Framing | Promotion Message |
| :--- | :--- |
| Positive goal framing | 'Save M5,00 every time you swipe your SLB debit <br> card or credit card for purchases at any SLB POS, <br> between 18 October 2019 and 30 November <br> 2019. Call 8002 2221 for more information.' |
| Negative goal framing | 'Lose M5,00 every time you withdraw from an <br> ATM instead of swiping your SLB debit card or <br> credit card at any SLB POS, for purchases, <br> between 18 October 2019 and 30 November <br> 2019. Call 8002 2221 for more information.' |
| Risky choice framing benefit: <br> determined by chance | 'Stand a chance of winning 1 of 5 monthly prizes <br> of R1 000 when you swipe for purchases over <br> R400 using your SLB debit card or credit card at <br> Game stores, between 24 October 2019 and 7 <br> November 2019. Call 8002 2221 for more <br> information.' |


| Risky action framing: benefit | 'Save R20 when you swipe for purchases over <br> R400 using your debit card or credit card at all <br> Game SLB points of sale, between 24 October <br> known upfront by all |
| :--- | :--- |
|  | 2019 and 7 November 2019. Call 8002 2221 for <br> more information.' |

### 4.10 Data-Gathering Process

Once the customers were identified, the researcher provided a script and a template for the collection of data from the bank's transactional database to the banks data team for extraction data. The only information collected from the bank's database was the transaction volumes and values, along with the monthly average volume for each customer participating in the price promotion.

This transactional data was collected before the experiment. The same data (for each customer) was collected, again after the experiment. Due to the bank's privacy policy, individual client information was not provided in the study. Only the volumes and values of transaction done by the customer were used and reported on.

According to Saunders and Lewis (2012), researchers can use either a single or a mixed method of collecting data. A single or mono-method means that one datacollection approach is used; a mixed method means that two or more data-collection approaches are used (Saunders \& Lewis, 2012). A mixed-method approach has several advantages over the single or mono-method; however, it requires a reasonable amount of time (Saunders \& Lewis, 2012). Due to the timeframe of the MBA research, a single method approach was used.

### 4.11 Analysis Approach

A set of numeric quantitative data was analysed, along with the transaction values and volumes. The data was analysed using the International Business Machines Corporation (IBM) Statistical Package for the Social Sciences (SPSS) software. The data was collected from the bank's database.

The descriptive statistics, showing the mean, mode, distribution and trend, were defined for the three sets of data. This was followed by a comparison of the 'before' experiment mean volume and the value of customers in different groups with the 'after' experiment mean volume and value. The following tests were carried out (per hypothesis):

For Hypothesis 1 of the study, the mean of one sample was compared and was taken before and after being introduced to a price promotion; the paired sample t-test was selected as the most appropriate test for statistically comparing the mean of a similar sample taken at different times or in different situations, to measure the difference between two dependent variables (Pallant, 2001; Wegner, 2012).

Hypothesis 2 and Hypothesis 3 required a comparison of five different means for different framings of price promotions. A one-way Analysis of Variance (ANOVA) was selected as the most appropriate statistical test for this (Pallant, 2001, 2016; Saunders \& Lewis, 2012; Wegner, 2012).

### 4.12 Limitations

The first limitation of the study was that only one data-collection method was used. The possibility of including an interview or running a reflective study could be explored in a similar study in the future.

The second limitation of the study was that the population was based in one country. This may have limited the generalisation of the results to Southern Africa. Even though steps were taken to ensure external validity, the experiment was still subject to influence by the natural environment. If a participant's situation had changed due to emotional stress, accidents or death in their family, for example, this could have affected their reaction to a price promotion.

The third limitation was the fact that the study was cross-sectional. This means that the lasting effects of price promotions were not demonstrated. The aim behind a price promotion is for customers to increase their transactions, even when the promotion comes to an end. A longitudinal study is necessary to demonstrate whether the effects of price promotions last and, if so, for how long. Chapter 5: Results Analysis

## Chapter 5: Discussion of Results

## 5.1 ntroduction

The aim of this research study was to understand the role or impact that the different framings of price promotions have on the channel utilisation of retail banking customers. The intention behind the study was to establish if there is a causal relationship between price promotions and retail banking customer channel utilisation.

This chapter presents the results of the study, obtained through the methodology discussed in Chapter 4. The results are discussed and presented per hypothesis. Thereafter, additional insights generated from the data analysis, which were not discussed as part of the hypothesis, will be highlighted.

Prior to this, the sample size and data transformation are discussed. This is followed by a demographic description of the data. The chapter concludes with a summary of the results. (The results are discussed in greater detail in the next chapter.)

### 5.1.1 Sample Size and Data Transformation

Two hundred SLB customers were sampled purposively for this study. A requirement for sample selection was that the customers had used their banking services for the past 6 months and that they were defined by the bank as 'primary customers' (customers who have completed more than 3 transactions and received $80 \%$ of their salary into their account per month).

These customers were then randomly divided into 4 groups of 50 customers. Each group included a random representation of customers from all the personal banking customer segments. Each group received a price promotion message based on the categories presented in Table 4 in Chapter 4 above.

### 5.1.2 Description of Demographics

This section presents the demographics of the total sample of participants, as shown in Table 5, below. As the data was extracted directly from the bank's customer database, it should be noted that the demographic data was $100 \%$, complete as it is pulled directly from the bank's database.

A description of the total sample follows:

- Fifty-nine percent of respondents who completed the survey were men; forty-one percent were women.
- Regarding age, $36 \%$ of the sample population were between the ages of 30 and 40 , and another $36 \%$ were between the ages of 40 and 50 , with both age groups amounting to $72 \%$ of participants.
- Most of the study participants (57\%) had a history of banking with SLB for 6 - 12 months; $26 \%$ had banked with them for under 6 months; and $8 \%$ had banked with them for more than 12 months.
- All four key retail banking segments were represented, with the lowest percentage of participants (10\%) being in the Blue segment. The other three segments represented $90 \%$ of participants (divided equally among the segments). This distribution is aligned with the transacting pattern of the whole customer base, with very few Blue customers transacting compared to the upper segments.
- Details of the customers' credit turnover (income into account) is shown in Table. There seems to be a fair split among the turnover bands, with participants with credit turnover above M10 000 taking over 75\% combined.

Table 5: Demographics of Participants

|  |  | Number of Participants | \% of Participants |
| :---: | :---: | :---: | :---: |
| Gender | Male | 107 | 54\% |
|  | Female | 93 | 47\% |
| Age | 20 to 30 | 12 | 6\% |
|  | 30 to 40 | 72 | 36\% |
|  | 40 to 50 | 71 | 36\% |
|  | 50 to 60 | 30 | 15\% |
|  | Above 60 | 15 | 8\% |
| Time with Bank | <=6 months | 52 | 26\% |
|  | 6 to 12 months | 113 | 57\% |
|  | Above 12 months | 35 | 18\% |
| Segment | Blue Banking | 20 | 10\% |
|  | Silver Banking | 60 | 30\% |
|  | Prestige Banking | 60 | 30\% |
|  | Private Banking | 60 | 30\% |
| Credit Turnover | < 10K | 52 | 26\% |
|  | 10 to 20K | 43 | 22\% |
|  | 20K to 35K | 39 | 20\% |
|  | Above 35K | 66 | 33\% |

Table 6: Participants' Demographics Per Category/Group

|  |  | Total Sample |  | Cateory 1 |  | Category 2 |  | Category 3 |  | Category 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number of Participants | \% of Participants | Number of Participants | \% of Participants | Number of Participants | \% of Participants | Number of Participants | \% of Participants | Number of Participants | \% of Participants |
| Gender | Male | 107 | 54\% | 24 | 48\% | 26 | 52\% | 26 | 52\% | 31 | 62\% |
|  | Female | 93 | 47\% | 26 | 52\% | 24 | 48\% | 24 | 48\% | 19 | 38\% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Age | 20 to 30 | 12 | 6\% | 5 | 10\% | 2 | 4\% | 3 | 6\% | 2 | 4\% |
|  | 30 to 40 | 72 | 36\% | 18 | 36\% | 19 | 38\% | 15 | 30\% | 20 | 40\% |
|  | 40 to 50 | 71 | 36\% | 13 | 26\% | 19 | 38\% | 20 | 40\% | 19 | 38\% |
|  | 50 to 60 | 30 | 15\% | 9 | 18\% | 9 | 18\% | 5 | 10\% | 7 | 14\% |
|  | Above 60 | 15 | 8\% | 5 | 10\% | 1 | 2\% | 7 | 14\% | 2 | 4\% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Time with Bank | <=6 months | 52 | 26\% | 16 | 32\% | 12 | 24\% | 9 | 18\% | 15 | 30\% |
|  | 6 to 12 months | 113 | 57\% | 23 | 46\% | 31 | 62\% | 33 | 66\% | 26 | 52\% |
|  | Above 12 months | 35 | 18\% | 11 | 22\% | 7 | 14\% | 8 | 16\% | 9 | 18\% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Segment | Blue Banking | 20 | 10\% | 5 | 10\% | 5 | 10\% | 5 | 10\% | 5 | 10\% |
|  | Silver Banking | 60 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% |
|  | Prestige Banking | 60 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% |
|  | Private Banking | 60 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% | 15 | 30\% |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Credit Turnover | <10K | 52 | 26\% | 11 | 22\% | 12 | 24\% | 14 | 28\% | 15 | 30\% |
|  | 10 to 20K | 43 | 22\% | 8 | 16\% | 11 | 22\% | 11 | 22\% | 13 | 26\% |
|  | 20K to 35K | 39 | 20\% | 13 | 26\% | 8 | 16\% | 9 | 18\% | 9 | 18\% |
|  | Above 35K | 66 | 33\% | 18 | 36\% | 19 | 38\% | 16 | 32\% | 13 | 26\% |

The gender split of each group was distributed similarly to that of the total sample, with the exception of Group 4, where there were more males ( $62 \%$ ). The main age group prevalent in all the groups was 30 -year-olds to 50 -year-olds. This was across all groups, and was the time to bank (between 6 and 12 months). This was consistent with the bank's transacting population. Ninety percent of the customer segment was distributed across the Silver, Prestige and Private banking categories. This was also observed in the credit turnover of R10 000,00 and above, which was consistent with the credit turnover qualification criteria for the above customer segments.

### 5.1.3 Descriptive Statistics for the Total Sample Data

In Table 7, below, a descriptive summary of the credit turnover for participants' accounts is provided. The age of participants and their time with the bank, at the time of the study, is included.

Table 7: Descriptive Statistics Per Category

| Category of <br> Participants | Category 1 | Category 2 | Category 3 | Category 4 |
| :--- | ---: | ---: | ---: | ---: |
| Number of participants | 50 | 50 | 50 | 50 |
| Mean participant <br> turnover | 50134 | 47693 | 43550 | 33900 |
| Median participant <br> turnover | 28461 | 25547 | 18706 | 17491 |
| Mean participant time <br> with bank | 10 | 10 | 10 | 10 |
| Median participant <br> time with bank | 9 | 10 | 9 | 10 |
| Mean participant age | 44 | 43 | 44 | 43 |
| Median participant age | 43 | 43 | 42 | 42 |

## Homogeneity of Variances

The assumption of homogeneity of variance was tested using Levene's test for equality of variances (see Table 8 , below). The homogeneity of variance tests the null hypothesis that error of variance is equal across the data samples. The $p$-value level, based on the mean, is significant - at $p<0.001$. This means that the error variances across means are not equal. The homogeneity of the variance hypothesis is therefore violated.

Table 8: One-Way ANOVA SPSS Output: Levene's Test of Homogeneity of Variance

Test of Homogeneity of Variances

|  | Levene <br> Statistic |  | df1 | df2 | Sig. |
| :--- | :--- | ---: | ---: | ---: | ---: |
| POSVolume | Based on Mean | 13.222 | 4 | 395 | .000 |
|  | Based on Median | 8.276 | 4 | 395 | .000 |
|  | Based on Median and <br> with adjusted df | 8.276 | 4 | 332.857 | .000 |
|  | Based on trimmed mean | 11.712 | 4 | 395 | .000 |

### 5.2 Results Per Hypotheses

### 5.2.1 Business Impact: Hypothesis 1

The null hypothesis relating to the business impact objective suggested that a price promotion (PP) does not lead to an increase in customer channel utilisation (CCU) and that customers will present similar channel utilisation behaviour before and after a price promotion. The alternative hypothesis states that price promotions (PPs) lead to an increase in customer channel utilisation (CCU).
$\mathrm{H} 1_{0}: \mathrm{CCU}_{\mathrm{Pp}}-\mathrm{CCU}=0$
$\mathrm{H}_{1}: \mathrm{CCU} \mathrm{pp}-\mathrm{CCU}>0$

The data set used to test this hypothesis was the 'before' and 'after' campaign average transaction value and volume for the total sample for card point of sale (POS) purchases. The tables below present the full descriptive statistics for both the 'before' and 'after' promotion transaction value and volume, for the total data sample.

### 5.2.2 Descriptive Statistics

The mean of the POS volume before the price promotion campaign was 4.21 , with a standard deviation of 5.29 , while the mean of the POS volume after the price promotion campaign was 7.58 , with a standard deviation of 8.64 . Table 9, below, presents the complete descriptive statistics for the 'before' and 'after' campaign POS volume.

Table 9: Descriptive Statistics - POS Volume Before and After Campaign

| POS_Volume_Before Campaign |  | POS_Volume_After Campaign |  |
| :--- | ---: | :--- | ---: |
|  |  |  |  |
| Mean | 4,21 | Mean | 7,58 |
| Standard Error | 0,37 | Standard Error | 0,61 |
| Median | 2,00 | Median | 5,00 |
| Mode | - | Mode | - |
| Standard Deviation | 5,29 | Standard Deviation | 8,64 |
| Sample Variance | 27,95 | Sample Variance | 74,71 |
| Kurtosis | 4,86 | Kurtosis | 2,35 |
| Skewness | 2,09 | Skewness | 1,52 |
| Range | 27,00 | Range | 45,50 |
| Minimum | - | Minimum | - |
| Maximum | 27,00 | Maximum | 45,50 |
| Sum | 842,00 | Sum | 1515,00 |
| Count | 20,00 | Count | 200,00 |
| Confidence Level(95,0\%) | 0,74 | Confidence Level(95,0\%) | 1,21 |

Table 10, below, presents the complete descriptive statistics for the 'before' and 'after' campaign POS value. The mean of the POS value before the price promotion campaign was M3 251,88, with a standard deviation of M5 033,74, while the mean of the POS value after the price promotion campaign was M5 620,49, with a standard deviation of M8 924,38.

Table 10: Descriptive Statistics - POS Value Before and After Campaign

| POS_Value_Before Campaign |  | POS_Value_Aafter Campaign |  |
| :--- | ---: | :--- | ---: |
|  | 3251,88 | Mean |  |
| Mean | 355,94 | Standard Error | 5620,49 |
| Standard Error | 1353,26 | Median | 631,05 |
| Median | - | Mode | 2021,34 |
| Mode | 5033,74 | Standard Deviation | - |
| Standard Deviation | 25338538,10 | Sample Variance | 89924,38 |
| Sample Variance | 10,32 | Kurtosis | 79644636,22 |
| Kurtosis | 2,82 | Skewness | 12,33 |
| Skewness | 33353,83 | Range | 3,04 |
| Range | 182,99 | Minimum | 60267,76 |
| Minimum | 33170,84 | Maximum | - |
| Maximum | 650375,39 | Sum | 60267,76 |
| Sum | 200,00 | Count | 1124097,76 |
| Count | 701,90 | Confidence Level(95,0\%) | 200,00 |
| Confidence Level(95,0\%) |  |  | 1244,40 |

For the purpose of Hypothesis 1 of the study, the mean of one sample was compared before and after the introduction of a price promotion. A paired sample (repeated measures) t-test was selected as the most appropriate test for statistically comparing the means of a similar sample being taken at different times or in different situations and thus to detect differences between two dependent variables (Pallant, 2016; Wegner, 2012).

Table 11 presents the results of the paired sample t-test for POS volumes before and after the price promotion campaign.

Table 11: Paired Sample T-test Results for POS Volume

| t-Test: Paired Two Sample for Means |  |  |
| :--- | ---: | ---: |
|  |  | 4,21 |
| Mean | POS_Volume_Before Campaign | POS_Volume_After Campaign |
| Variance | 27,95 | 7,58 |
| Observations | 200,00 | 74,71 |
| Pearson Correlation | 0,83 |  |
| Hypothesized Mean Difference | - |  |
| df | 199,00 |  |
| $t$ Stat | 9,13 |  |
| P(T<=t) one-tail | 0,00 |  |
| t Critical one-tail | 1,65 |  |
| P(T<=t) two-tail | 0,00 |  |
| $t$ Critical two-tail | 1,97 |  |
|  |  |  |

Customer channel utilisation was hypothesised to increase after a price promotion, therefore having a positive impact on the business. Based on the t-test results above, the POS volume increased from $M=4.21$ ( $\mathrm{SD}=5.29$ ) to $\mathrm{M}=7.58$ ( $\mathrm{SD}=8.64$ ). There is a significant difference in the means of the samples, as demonstrated by $\mathrm{t}(199)=$ 9.13 , $p$-value $=0.000<0.05$. The null hypothesis $\left(\mathrm{H} 1_{0}\right)$, which suggested that price promotions do not lead to increased channel utilisation, should therefore be rejected in support of the alternative hypothesis $\left(\mathrm{H} 1_{1}\right)$, which is indicated as $\mathrm{H} 1_{1}$ : CCU pp $\mathrm{CCU}>0$.

Table 12, below, presents the results of the paired sample t-test for the POS value before and after the price promotion campaign.

Table 12: Paired Sample T-test Results for POS Value

| t-Test: Paired Two Sample for Means |  |  |
| :--- | ---: | ---: |
|  |  |  |
|  | POS_Value_Before Campaign | POS_Value_Aafter Campaign |
| Mean | 3251,88 | 5620,49 |
| Variance | 2533853,10 | 79644636,22 |
| Observations | 200,00 | 200,00 |
| Pearson Correlation | 0,59 |  |
| Hypothesized Mean Difference | - |  |
| df | 199,00 |  |
| t Stat | 4,66 |  |
| P(T<=t) one-tail | 0,00 |  |
| t Critical one-tail | 1,65 |  |
| P(T<=t) two-tail | 0,00 |  |
| t Critical two-tail | 1,97 |  |

Customer channel utilisation was hypothesised to increase after a price promotion, therefore having a positive impact on the business. Based on the $t$-test results above, the mean POS value increased from $\mathrm{M}=\mathrm{M} 3251.88$ ( $\mathrm{SD}=5033.74$ ) to $M=$ M5 620.49 ( $S D=8924.38$ ). There is a significant difference in the means of the samples, as demonstrated by $\mathrm{t}(199)=4.66, \mathrm{p}$-value $=0.000$, The null hypothesis $\left(\mathrm{H} 1_{0}\right)$, which suggested that price promotions do not lead to increased channel utilisation, should therefore be rejected in support of the alternative hypothesis $\left(\mathrm{H} 1_{1}\right)$, namely $\mathrm{H1}_{1}$ : $\mathrm{CCU} \mathrm{pp}-\mathrm{CCU}>0$.

With regard to both paired sample t-tests for POS volumes and values, the null hypothesis is rejected.

### 5.2.3 Hypothesis 2 and Hypothesis 3 Test Results

For the purpose of Hypothesis 2 and Hypothesis 3 of the study, the means of the sample groups were compared. The comparison was made with the 'before an intervention' and 'after an intervention' data, which, in this case, was the introduction of a framed price promotion. A one-way analysis of variance (between-subjects) ANOVA was picked as the most appropriate statistical test (Pallant, 2001, 2016; Wegner, 2012).

Tables 13 to 18 below show the results of the one-way ANOVA, including a Bonferroni post-hoc test for the control and experiment groups, which will be used for both hypothesis 1 and 2. The Bonferroni post-hoc test was selected as the most appropriate post-hoc analysis. This is because it reduced the likelihood of achieving a significant result by chance, therefore reducing the probability of committing a Type I error.

The data used for this test comprises the 'before' and 'after' framed price promotion mean POS volumes for each group. The 'before price promotion' data for all groups was merged together to create one control group. There are four different framings, grouped into two framing categories: 'goal framing' and 'risky action framing'. Each has two sides: a 'positive' and 'negative' for goal framing and 'benefits known upfront by all' and 'benefits determined by chance' for risky action.

Table 13: Descriptive Statistics Mean POS Volume Before and After

## Framed Price Promotion

| Descriptives |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POSVolume |  |  |  |  |  |  |  |  |
|  | N | Mean | Std. Deviation | Std. Error | 95\% Confidence Interval for Mean |  | Minimum | Maximum |
|  |  |  |  |  | Lower Bound | Upper Bound |  |  |
| Control | 200 | 4.210 | 5.2864 | . 3738 | 3.473 | 4.947 | . 0 | 27.0 |
| Promotion Benefit Determined by Chance | 50 | 5.900 | 7.1092 | 1.0054 | 3.880 | 7.920 | . 0 | 34.5 |
| Promotion Benefit Know Upfront by All | 50 | 7.370 | 7.9416 | 1.1231 | 5.113 | 9.627 | . 0 | 29.0 |
| Negative Goal Framing promotion | 50 | 5.770 | 6.9475 | . 9825 | 3.796 | 7.744 | . 0 | 24.5 |
| Positive Goal framing promotion | 50 | 11.260 | 11.0205 | 1.5585 | 8.128 | 14.392 | . 0 | 45.5 |
| Total | 400 | 5.893 | 7.3510 | . 3676 | 5.170 | 6.615 | . 0 | 45.5 |

Table 14: One-Way ANOVA SPSS Output: ANOVA Test

| ANOVA |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| POSVolume |  |  |  |  |  |  |
|  | Sum of <br> Squares | df | Mean Square | F | Sig. |  |
| Between Groups | 2116.568 | 4 | 529.142 | 10.749 | .000 |  |
| Within Groups | 19444.310 | 395 | 49.226 |  |  |  |
| Total | 21560.878 | 399 |  |  |  |  |

Table 15: One-Way ANOVA SPSS Output: Brown-Forsythe Equality of Means

Robust Tests of Equality of Means
POSVolume

|  | Statistic $^{\text {a }}$ | df1 | df2 | Sig. |
| :--- | ---: | ---: | :---: | :---: |
| Brown-Forsythe | 8.082 | 4 | 185.401 | .000 |

a. Asymptotically F distributed.

Table 16: One-Way ANOVA SPSS Output: Contrast Coefficients

## Contrast Coefficients

|  | Group |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Contrast | Control | Promotion <br> Benefit <br> Determined <br> by Chance | Promotion <br> Benefit Know <br> Upfront by All | Negative Goal <br> Framing <br> promotion | Positive Goal <br> framing <br> promotion |
| 1 | -1 | 1 | 0 | 0 | 0 |
| 2 | -1 | 0 | 1 | 0 | 0 |
| 3 | -1 | 0 | 0 | 1 | 0 |
| 4 | -1 | 0 | 0 | 0 | 1 |

Table 17: One-Way ANOVA SPSS Output: Contrast Test

| Contrast Tests |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Contrast | Value of Contrast | Std. Error | t | df | Sig. (2-tailed) |
| POSVolume | Assume equal variances | 1 | 1.690 | 1.1093 | 1.523 | 395 | . 128 |
|  |  | 2 | 3.160 | 1.1093 | 2.849 | 395 | . 005 |
|  |  | 3 | 1.560 | 1.1093 | 1.406 | 395 | . 160 |
|  |  | 4 | 7.050 | 1.1093 | 6.355 | 395 | . 000 |
|  | Does not assume equal variances | 1 | 1.690 | 1.0726 | 1.576 | 63.186 | . 120 |
|  |  | 2 | 3.160 | 1.1837 | 2.670 | 60.275 | . 010 |
|  |  | 3 | 1.560 | 1.0512 | 1.484 | 63.882 | . 143 |
|  |  | 4 | 7.050 | 1.6027 | 4.399 | 54.755 | . 000 |

## Table 18: One-Way ANOVA SPSS Output: Bonferroni Post-Hoc Tests

Multiple Comparisons
Dependent Variable: POSVolume
Bonferroni

| (I) Group | (J) Group | $\begin{gathered} \text { Mean } \\ \text { Difference (l- } \\ \mathrm{J}) \end{gathered}$ | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower Bound | Upper Bound |
| Control | Promotion Benefit Determined by Chance | -1.6900 | 1.1093 | 1.000 | -4.822 | 1.442 |
|  | Promotion Benefit Know Upfront by All | $-3.1600{ }^{*}$ | 1.1093 | . 046 | -6.292 | -. 028 |
|  | Negative Goal Framing promotion | -1.5600 | 1.1093 | 1.000 | -4.692 | 1.572 |
|  | Positive Goal framing promotion | $-7.0500{ }^{*}$ | 1.1093 | . 000 | -10.182 | -3.918 |
| Promotion Benefit <br> Determined by Chance | Control | 1.6900 | 1.1093 | 1.000 | -1.442 | 4.822 |
|  | Promotion Benefit Know Upfront by All | -1.4700 | 1.4032 | 1.000 | -5.431 | 2.491 |
|  | Negative Goal Framing promotion | . 1300 | 1.4032 | 1.000 | -3.831 | 4.091 |
|  | Positive Goal framing promotion | $-5.3600^{*}$ | 1.4032 | . 002 | -9.321 | -1.399 |
| Promotion Benefit Know Upfront by All | Control | $3.1600^{*}$ | 1.1093 | . 046 | . 028 | 6.292 |
|  | Promotion Benefit Determined by Chance | 1.4700 | 1.4032 | 1.000 | -2.491 | 5.431 |
|  | Negative Goal Framing promotion | 1.6000 | 1.4032 | 1.000 | -2.361 | 5.561 |
|  | Positive Goal framing promotion | -3.8900 | 1.4032 | . 058 | $-7.851$ | . 071 |
| Negative Goal Framing promotion | Control | 1.5600 | 1.1093 | 1.000 | -1.572 | 4.692 |
|  | Promotion Benefit Determined by Chance | -. 1300 | 1.4032 | 1.000 | -4.091 | 3.831 |
|  | Promotion Benefit Know Upfront by All | -1.6000 | 1.4032 | 1.000 | -5.561 | 2.361 |
|  | Positive Goal framing promotion | $-5.4900{ }^{*}$ | 1.4032 | . 001 | -9.451 | -1.529 |
| Positive Goal framing promotion | Control | $7.0500^{*}$ | 1.1093 | . 000 | 3.918 | 10.182 |
|  | Promotion Benefit Determined by Chance | $5.3600^{*}$ | 1.4032 | . 002 | 1.399 | 9.321 |
|  | Promotion Benefit Know Upfront by All | 3.8900 | 1.4032 | . 058 | -. 071 | 7.851 |
|  | Negative Goal Framing promotion | $5.4900^{*}$ | 1.4032 | . 001 | 1.529 | 9.451 |

*. The mean difference is significant at the 0.05 level.

### 5.3 Hypothesis 2: Goal Framing

The null hypothesis under the goal framing section suggested that a positive goalframed price promotion (PG) leads to an increase in customer channel utilisation (CCU) and that it has more impact than the negative goal-framed price promotion.

The alternative hypothesis stated that a negative goal-framed price promotion (NG) leads to an increase in customer channel utilisation (CCU) and has more impact than a positive goal-framed price promotion.
$\mathrm{H}_{10}: \mathrm{CCU}_{\mathrm{PG}}-\mathrm{CCU} \mathrm{NG}^{>} \mathrm{O}$
$\mathrm{H}_{1}: \mathrm{CCU}_{\mathrm{NG}}-\mathrm{CCU} \mathrm{Pg}>0$

The data set used to test this hypothesis was the 'before' and 'after' campaign average POS transaction volume for the sample group. The group members were subjected to negative and positive goal-framed price promotions.

### 5.3.1 Descriptive Statistics

The mean POS volume of the 'before price promotion' campaign was 4.210 , with a standard deviation of 5.286 . The mean POS volume after the negative goal-framed price promotion campaign was 5.77 , with a standard deviation of 6.95 , as seen in Table 13, above. The table presents the complete descriptive statistics for the 'before price promotion' mean POS volume and 'after price promotion' (where benefits were known upfront by all) mean POS volume.

As per Table 13, above, which presents the complete descriptive statistics for the 'before price promotion' mean POS volume and 'after price promotion' (where benefits were known upfront by all) mean POS volume, the mean POS volume before the price promotion was $M=4.20$, with a standard deviation of $S D=5.286$, while the mean POS volume after the positive goal-framed price promotion campaign was M $=11.26$, with a standard deviation of $S D=11.02$.

### 5.3.2 Hypothesis 2 Results

A one-way repeated measures ANOVA was run to determine whether there was a significant difference in the mean POS volume before and after the negative and positive goal-framed pricing promotions and to determine which of the two produced a more significant increase in the mean POS volume. The results of the ANOVA indicated a significant difference among the mean POS volumes, with $F(4,395)=$ $10.749, p=.000<.001$ (See Table 14).

The results were calculated using the Brown-Forsythe robust test for equality of means (See Table 15), as the assumption of homogeneity of variance was not met (Pallant, 2001, 2016).

The Bonferroni post-hoc results in Table 18 showed that the mean POS volume of the 'after' positive goal-framed price promotion ( $M=11.26$, $S D=11.02$ ) was significantly larger than the 'before' price promotion mean POS volume ( $M=4.210$, SD $=5.286$ ), with $F(4,395)=19.351, p<.001$ (See Table 17, $F$ test calculated as $t$ squared). The calculated eta squared was 0.1 , which shows that the effects of size were medium to large.

The comparison results also showed that the mean POS volume of the 'after' negative goal-framed price promotion ( $M=5.77, S D=6.94$ ) was not significantly larger than the 'before' price promotion mean POS volume ( $M=4.210$, $S D=5.286$ ), with $F(4,395)=2.202, p=1.00$ (See Table 17, $F$ test calculated as $t$ squared). When comparing the mean POS volume of the 'after' positive goal-framed price promotion against the 'after' negative goal-framed price promotion, the results show a significant difference, with the 'after' positive price promotion mean POS volume at a $95 \%$ confidence level (being between 1.529 and 9.451 ), significantly larger than the 'after' negative price promotion mean POS volume.

Therefore, the null hypothesis is rejected. The null hypothesis states that the negative goal-framed price promotion leads to increased channel utilisation, POS volume in this case, and that is has more impact than the positive goal-framed price promotion.

### 5.4 Hypothesis 3: Risky Action Framing

The null hypothesis under the risky choice framing section suggests that a risky choice framed price promotion, where a customer's gain from performing a transaction is determined by chance (RA), leads to increased customer channel utilisation (CCU) and that it has more impact than a price promotion with benefits of the promotion known upfront by all (BU).

The alternative hypothesis suggests that a price promotion with benefits of the promotion known upfront by all (BU) will lead to an increase in customer channel utilisation (CCU) and that it has more impact than a risky action framed price promotion (RA), where a customer's gain from performing a transaction is determined by chance, after performing such a transaction.
$\mathrm{H}_{1}: \mathrm{CCU}_{\mathrm{BU}}-\mathrm{CCU}_{R A}>0$
$\mathrm{H}_{1}$ : $\mathrm{CCU}_{\mathrm{RA}}-\mathrm{CCU}_{\mathrm{BU}}>0$

The data set used to test this hypothesis was the 'before' and 'after' campaign average POS transaction volume for the sample group that was subjected for risky action framed price promotions. One group was subjected to a campaign where benefits were known upfront by all. For another group, the benefits were determined by chance of winning, after performing the transaction.

### 5.4.1 Descriptive Statistics

The mean POS volume for before a price promotion was 4.210, with a standard deviation of 5.286 , while the mean POS volume of after a price promotion campaign, where benefits we known upfront by all, was 7.370, with a standard deviation of 7.941. Table 13, above, presents the complete descriptive statistics for the 'before' price promotion mean POS volume and 'after' price promotion campaign (where benefits we known upfront by all) mean POS volume.

As shown in Table 13, above, of the descriptive statistics for the before price promotion mean POS volume and after a price promotion where a customer's gain from performing a transaction is determined by chance mean POS volume. The mean POS volume for before the price promotion was 4.210, with a standard deviation of 5.286 , while the mean for POS volume for after the price promotion (where a customer's gain was determined by chance) was $M=5.900$, with a standard deviation of $\mathrm{SD}=7.110$.

### 5.4.2 Hypothesis 3 Results

A one-way ANOVA was run to determine whether there was a significant difference in the 'before price promotion' mean POS volume and the 'after price promotion', where a customer's gain was determined by chance and where benefits were known upfront by all, and to determine which of the two famings of price promotions produced a more significant increase in the mean POS volume. The results of the ANOVA indicated a significant difference among the mean POS volume after a framed price promotion with $F(4,395)=10.749, p=.000<.001$ (See Table 14). The results were calculated using the Brown-Forsythe robust test for equality of means (See Table 15), as the assumption of homogeneity of variance was not met (Pallant, 2001, 2016).

The Bonferroni post-hoc results showed the means POS volume of the 'after' a price promotion where a customer's gain is determined by chance ( $M=5.900$, SD = 7.110) is not significantly larger than the 'before' price promotion mean POS volume ( $\mathrm{M}=$ 4.210, $S D=5.286$ ) with $F(4,395)=2.483, p=1.000$ (See Table 17, $F$ test calculated as t squared). The comparison results also showed that the after promotion mean POS volume of the price promotion campaign where benefits were known upfront by all $(M=7.370, S D=7.941)$ is significantly larger than the before price promotion mean POS volume ( $\mathrm{M}=4.210$, $S \mathrm{C}=5.286$ ) with $\mathrm{F}(4,395)=7.129, \mathrm{p}=0.046$ (See Table 17, F test calculated as t squared). The calculated eta squared was 0.1 , which shows that effects of size was medium to large.

The null hypothesis which stated that the price promotion where benefits determined by chance leads to increase channel utilisation, POS volume in this case, and that is has more impact than the price promotion campaign whereby the customer's gain is known upfront by all is therefore rejected based on the above.

### 5.5 Mean Comparison by Age

Table 19, below, presents the complete descriptive statistics for the mean POS volume of the population sample after a price promotion, grouped by age.

Table 19: Descriptive Statistics: Mean POS Volume Grouped by Age

| Descriptives |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 95\% Confide | Interval for <br> n |  |  |
|  | N | Mean | Std. Deviation | Std. Error | Lower Bound | Upper Bound | Minimum | Maximum |
| Less Than 30 years | 10 | 9.050 | 11.0616 | 3.4980 | 1.137 | 16.963 | . 0 | 32.0 |
| 30 to 40 years | 65 | 7.969 | 7.9593 | . 9872 | 5.997 | 9.941 | . 0 | 35.0 |
| 40 to 50 years | 66 | 6.356 | 7.1596 | . 8813 | 4.596 | 8.116 | . 0 | 30.5 |
| Above 50 Years | 59 | 8.254 | 10.3580 | 1.3485 | 5.555 | 10.954 | . 0 | 45.5 |
| Total | 200 | 7.575 | 8.6435 | . 6112 | 6.370 | 8.780 | . 0 | 45.5 |

To determine which means were significantly different between the age groups, a one-way ANOVA was run to compare all age groups. A one-way ANOVA is the most appropriate statistical test to compare two or more means (Pallant, 2016; Wegner, 2012). The results of the ANOVA test are shown below, in Table 20.

Table 20: One-Way ANOVA - Age Groups Mean POS Volume

## ANOVA

POS Volume After

|  | Sum of <br> Squares | df | Mean Square | F | Sig. |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Between Groups | 157.143 | 3 | 52.381 | .698 | .554 |
| Within Groups | 14710.232 | 196 | 75.052 |  |  |
| Total | 14867.375 | 199 |  |  |  |

The null hypothesis of a one-way ANOVA is that all the means of the population samples are equal, while the alternate hypothesis is that one of the sample means is significantly different, as presented below:
$\mathrm{H}_{0}=\mathrm{u} 1=\mathrm{u} 2=\mathrm{u} 3=\mathrm{u} 4$
$\mathrm{H}_{1}=$ One of the means is significantly different

The above ANOVA results, with $\mathrm{F}(3,196)=0.698, \mathrm{p}=.554,>0.05$ (See Table 20), are evidence that the null hypothesis should be accepted. This is because there were no significant differences among the sample means.

### 5.6 Mean Comparison by Gender

Table 21, below, presents the complete descriptive statistics for the mean POS volume of the population sample after a price promotion, grouped by gender.

Table 21: Descriptive Statistics: Mean POS Volume Grouped by Gender Descriptives

|  | N | Mean | Std. Deviation | Std. Error | 95\% Confidence Interval for Mean |  | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower Bound | Upper Bound |  |  |
| Male | 107 | 7.893 | 9.2471 | . 8940 | 6.120 | 9.665 | . 0 | 45.5 |
| Female | 93 | 7.210 | 7.9264 | . 8219 | 5.577 | 8.842 | . 0 | 34.5 |
| Total | 200 | 7.575 | 8.6435 | . 6112 | 6.370 | 8.780 | . 0 | 45.5 |

To determine which means were significantly different between the gender groups, a one-way ANOVA was run to compare groups. As mentioned previously, a one-way ANOVA is the most appropriate statistical test to compare two or more means (Pallant, 2016; Wegner, 2012). The results of the ANOVA test are shown below, in Table 22.

Table 22: One-Way ANOVA - Gender Group Mean POS Volume
ANOVA
POS Volume After

|  | Sum of <br> Squares | df | Mean Square | F | Sig. |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Between Groups | 23.200 | 1 | 23.200 | .309 | .579 |
| Within Groups | 14844.175 | 198 | 74.971 |  |  |
| Total | 14867.375 | 199 |  |  |  |

The null hypothesis of a one-way ANOVA is that all the means of the population samples are equal, while the alternate hypothesis is that one of the sample means is significantly different, as presented below:
$\mathrm{H}_{0}=\mathrm{u} 1=\mathrm{u} 2$
$\mathrm{H}_{1}=\mathrm{u} \neq \mathrm{u} 2$

The above ANOVA results, with $F(1,198)=0.309, p=.579>.05$ (which is greater than the significance level of 0.05 ) (See Table 22) are evidence that the null hypothesis should be accepted. This is because there were no significant differences among the sample means.

### 5.7 Mean Comparison by Segment

Table 23 presents the complete descriptive statistics for the mean POS volume of the population sample after a price promotion, grouped by banking segments. The segments are Private, Gold, Silver and Blue banking, based on the customer's income level (defined by the bank).

Table 23: Descriptive Statistics: Mean POS Volume Grouped by Segment

## Descriptives

|  | N | Mean | Std. Deviation | Std. Error | 95\% Confidence Interval for Mean |  | Minimum | Maximum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower Bound | Upper Bound |  |  |
| PVT | 60 | 11.142 | 8.5018 | 1.0976 | 8.945 | 13.338 | . 0 | 35.0 |
| GLD | 60 | 8.667 | 10.0851 | 1.3020 | 6.061 | 11.272 | . 0 | 45.5 |
| SIL | 60 | 3.400 | 5.7444 | . 7416 | 1.916 | 4.884 | . 0 | 32.5 |
| BLU | 20 | 6.125 | 6.2088 | 1.3883 | 3.219 | 9.031 | . 0 | 23.0 |
| Total | 200 | 7.575 | 8.6435 | . 6112 | 6.370 | 8.780 | . 0 | 45.5 |

To determine which means were significantly different between the segment groups, a one-way ANOVA was run to compare all segment groups. A one-way ANOVA is the most appropriate statistical test to compare two or more means (Pallant, 2016; Wegner, 2012). The results of the ANOVA test are shown below, in Table 24:

Table 24: One-Way ANOVA - Segment Groups Mean POS Volume

## ANOVA

POS Volume After

|  | Sum of <br> Squares | df | Mean Square | F | Sig. |
| :--- | ---: | ---: | ---: | :--- | :--- |
| Between Groups | 1922.658 | 3 | 640.886 | 9.704 | .000 |
| Within Groups | 12944.717 | 196 | 66.044 |  |  |
| Total | 14867.375 | 199 |  |  |  |

The null hypothesis of a one-way ANOVA is that all the means of the population samples are equal, while the alternate hypothesis is that one of the sample means is significantly different, as presented below:
$\mathrm{H}_{0}=\mathrm{u} 1=\mathrm{u} 2=\mathrm{u} 3=\mathrm{u} 4$
$\mathrm{H}_{1}=$ One of the means is significantly different

The above ANOVA results, with $F(3,196)=9.704, p=.000<.001$ (See Table 24), are evidence that the null hypothesis should be rejected. This is because there were significant differences among the sample means.

### 5.8 Post-Hoc Tests

## Table 25: Segment Groups Tukey HSD Post-Hoc Test

## Multiple Comparisons

Dependent Variable: POS Volume After
Tukey HSD

| (I) Seg Code | (J) Seg Code |  | Std. Error | Sig. | 95\% Confidence Interval |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Lower Bound | Upper Bound |
| PVT | GLD | 2.4750 | 1.4837 | . 343 | -1.370 | 6.320 |
|  | SIL | $7.7417^{*}$ | 1.4837 | . 000 | 3.897 | 11.586 |
|  | BLU | 5.0167 | 2.0983 | . 082 | -. 421 | 10.454 |
| GLD | PVT | -2.4750 | 1.4837 | . 343 | -6.320 | 1.370 |
|  | SIL | $5.2667^{*}$ | 1.4837 | . 003 | 1.422 | 9.111 |
|  | BLU | 2.5417 | 2.0983 | . 620 | -2.896 | 7.979 |
| SIL | PVT | -7.7417* | 1.4837 | . 000 | -11.586 | -3.897 |
|  | GLD | $-5.2667^{*}$ | 1.4837 | . 003 | -9.111 | -1.422 |
|  | BLU | -2.7250 | 2.0983 | . 565 | -8.162 | 2.712 |
| BLU | PVT | -5.0167 | 2.0983 | . 082 | -10.454 | . 421 |
|  | GLD | -2.5417 | 2.0983 | . 620 | -7.979 | 2.896 |
|  | SIL | 2.7250 | 2.0983 | . 565 | -2.712 | 8.162 |

*. The mean difference is significant at the 0.05 level.

The post-hoc test results in Table 25 showed a 95\% confidence level that the Private banking mean POS volume was significantly higher than the Silver banking mean POS volume. This was shown by the p-value, which was 0.000 - less than a significance level of 0.05 . The comparison of the mean POS volume of the Gold and Silver banking showed, at a 95\% confidence level, that the Gold banking mean POS
volume was between 1.442 and 9.111 above the Silver banking mean POS volume, with $p$-value $=0.003<0.05$.

The results showed no significant difference between the Private banking mean POS volume and the Gold and Blue banking mean POS volume, as well as no significant difference between the Gold banking and Blue banking mean POS volume and, lastly, between the mean POS volume of the Silver banking and the Blue banking. This is demonstrated by all the p -values being greater than the significance level of 0.05 .

### 5.8 Conclusion

This chapter presented the results of all the tests that were run to test the hypotheses of the study. The summary of results is shown in Table 26, below. The results will be discussed in the following chapter.

Table 26: Hypothesis Testing: Summary of Results

| Hypothesis | Results |
| :--- | :--- |
| $\mathrm{H} 1_{0}$ | Rejected |
| $\mathrm{H} 2_{0}$ | Rejected |
| $\mathrm{H} 3_{0}$ | Rejected |

Further to this, multiple ANOVAs were run to test if there was a significant increase between the mean of the subjects as grouped according to gender, age and banking segment. It is noteworthy that no significant differences were observed in the 'after promotion' mean POS volume between the gender groups and age groups,. However, there was a significant difference among the means of the segment groups, with the largest significance being between the Private and Silver banking groups.

In the following chapter, the above results are discussed in relation to the theoretical framework of the study. Results are categorised under the relevant hypothesis. The chapter concludes by confirming whether the objectives of the study have been satisfied or not.

## Chapter 6: Discussion of Results

The research aimed to understand the impact of price promotions (and the framing of price promotions) on the channel utilisation of customers in retail banking. The goal was to provide empirical evidence of this impact. The 'Discussion of Results' chapter is organised according to the research objectives below and according to relevant research hypotheses.

Objective 1: The first objective of this study was to determine the impact of price promotions on the retail bank's customer channel utilisation. Do price promotions increase customer channel utilisation?

Objective 2: The second objective was to understand the role played by message framing in price promotions, in other words: to determine if the desirability of a promotion was affected by the way in which the promotion message was framed. This provided empirical evidence to prove or disprove the prediction made by prospect theory's 'loss aversion’ concept.

According to Saunders and Lewis (2018), an explanatory study focuses on explaining why events occur, known as 'causal design'. This was the most suitable approach for this research, for the purpose of understanding the effect of a change in one variable on another and thus understanding the effect that a price promotion has on the channel utilisation of retail banking customers. The results analysis shows that there is a causal relationship between a price promotion and customer banking channel utilisation.

The results also provided empirical evidence that message framing coupled with price promotion has a positive impact on customer channel utilisation, which, for the purposes of this study, is defined as the mean POS volume per customer. The results showed that the positive goal-framed price promotion produces the most significant increase in customer channel utilisation (measured by mean POS volume), followed by the risky choice framed price promotion, with static benefits known upfront by all customers. The findings allow marketers to have confidence in the use of price promotions in retail banking - to improve the utilisation of new banking channels.

The findings also point marketers to the most appropriate types of message framing, to ensure high take-up of their price promotions.

### 6.1 Business Impact: Objective 1

The first objective of the research was to determine whether price promotions significantly increase customer channel utilisation, which, in this case, was defined as the mean POS volume and value. In other words, the objective was to determine whether a customer will increase their channel utilisation (mean POS volume) as a result of being exposed to a price promotion.

Price promotions are the simplest and fastest way to increase customer channel utilisation and have been identified, in several studies, as one of the main marketing initiatives used to increase sales and channel utilisation, and to attract new customers. For this reason, price promotions are commonly used in retail industries (Arce-Urriza et al., 2017; Grewal et al., 2011; Zoellner and Schaefers, 2015). One of the aims behind this study was to confirm if price promotions are equally effective in the retail banking industry.

The first null hypothesis looked specifically at the role of a price promotion on the business; in this case, the business impact was assessed using mean POS volume and value $\mathrm{H} 1_{0}$ : CCU pp $-\mathrm{CCU}=0$. A paired sample t-test was run to test this hypothesis. This confirmed that the 'after promotion' mean POS volume was significantly larger than the 'before promotion' mean POS volume. The null hypothesis, which stated that the price promotions had no impact on the mean POS volume and value, was therefore rejected.

This result supported the assertion by Zoellner and Schaefers (2015) that price promotion is one of the most efficient ways for marketers to increase sales and business performance. The results also provide concrete evidence for bank marketers that promotions are effective in retail banking. For the purposes of this study, business performance or impact was defined as an increase in banking channel utilisation. The business performance indicator was the POS volumes and values, per customer per month.

The mean POS volume increased from $\mathrm{M}=4.21$ ( $\mathrm{SD}=5.29$ ) to $\mathrm{M}=7.58$ ( $\mathrm{SD}=8.64$ ). This was an observable difference in the means of the samples, as demonstrated by $t(199)=9.13, p$-value $=0.000<0.05$. The mean POS value also increased, from $M=M 3251.88$ ( $S D=5033.74$ ) to $M=M 5620.49$ ( $S D=8924.38$ ). This is also an observable difference in the means of the samples, as demonstrated by $\mathrm{t}(199)=$ 4.66, p-value $=0.000$. The results confirm Lee and Tsai's (2013) assertion that price promotions are expected to lead to increased sales or customer channel utilisation.

The results showed a clear improvement in business performance, as seen by the increase in POS volumes and values per customer, after the price promotion. This implies that bank marketers can use price promotions to increase their channel utilisation per customer, by north of $50 \%$, as demonstrated by the $80 \%$ increase in the mean POS volume and value.

This is good news for bank marketers - Haas (2015) and Nitsure (2003) suggested that banks are in dire need of reducing their per-customer cost to serve, which currently involves the costs of maintaining physical branches and branch personnel. The demonstrated success of price promotions encourages marketers to use these promotions to increase banking channel utilisation. As the utilisation of customer channels (like POS purchases) increases, the main opportunity for banks will be to reduce the cost to serve per customer; banks will therefore be able to serve customers cheaper and faster (Campbell \& Frei, 2010; Nitsure, 2003).

### 6.2 Framing of Price Promotions: Objective 2, Hypothesis 2

The second objective of this research was to determine and understand the impact that message framing coupled with a price promotion will have on customer channel utilisation, which, in this case, is shown by the mean POS volume and value. This supports the notion of message framing that a combination of price promotion and appropriate message framing increases the effectiveness of a marketing strategy. It is argued that it is not only price savings that influence the increase in demand but also the way in which the price promotion is presented. This influences the customer's judgment of gains or losses resulting from the transaction. This means that the presentation of a price promotion influences its take-up (Alavi et al., 2015; Barberis, 2013; Schmidt \& Zank, 2012).

According to Gamliel and Herstein (2011), goal framing is related to the 'loss aversion' concept of prospect theory. In goal framing, the price promotion is either framed as a positive, which focuses on the gains and benefits to the customer if they perform a certain action, or as a negative, which emphasises the negative consequences of not performing a specific action (like a purchase or transaction through a channel). Goal framing suggests that customers wish to avoid losses (negative framing) more than they wish to receive gains of a similar magnitude.

The second null hypothesis, $\mathrm{H}_{0}$ : $\mathrm{CCU} \mathrm{NG}-\mathrm{CCU}$ PG $>0$, aimed to assess the impact that a goal-framed price promotion has on the business. The hypothesis also aimed to establish which of the two types of goal framing (positive goal framing and negative goal framing) would produce the most impact.

A one-way ANOVA was run to test this hypothesis. The ANOVA results, as seen in Table 14 above, confirmed that there was a significant difference among the 'before' and 'after' promotion means and that the null hypothesis was therefore rejected. The Bonferroni post-hoc test was run to identify where the significance lies (See Table 18).

The results affirmed the position of Alavi et al. (2015), Barberis (2013), Jones (2007), Kahneman and Tversky (1979), Schmidt and Zank (2012), and Zeisberger et al. (2010), who proposed that the extent to which a customer is willing to take up a promotion offer is based not only on the extent to which the promotion offer is pitched but also the way in which the promotion message is positioned. Customers therefore perceive the value of a promotion or campaign based on the way that it is presented, regardless of the objective content of the campaign or promotion (Alavi et al., 2015; Soellner \& Schaefers, 2015).

Both types of goal framing led to an increase in the mean POS volume of the 'after' promotion, when compared to the 'before' promotion mean POS volume. However, only positive goal-framed price promotions resulted in a significant or large magnitude in the mean POS volume of the 'after' promotion, which therefore led to an increase in business impact.

For the purposes of this study, business performance or impact was defined as an increase in banking channel utilisation. This referred to the POS volumes and values that a customer produces per month.

The mean POS volume for positive goal-framed price promotions increased from $\mathrm{M}=$ 4.210 ( $\mathrm{SD}=5.286$ ) to $\mathrm{M}=11.260(\mathrm{SD}=11.020)$. When comparing the positive goalframed price promotion mean to the 'before' promotion, the Bonferroni post-hoc test results show an observable difference in the means of the samples, as demonstrated by $p<0.001$. The results show that the mean POS volume of the 'after' negative goal-framed price promotion did not increase significantly, that is: it increased from to $M=4.210(S D=5.286)$ to $M=5.770$ ( $S D=6.941$ ), with $p=1.000$, as demonstrated by the Bonferroni post-hoc test comparing the negative goal-framed promotion mean with the 'before' promotion mean.

As suggested by Lee and Tsai (2013), price promotions are expected to increase sales or customer channel utilisation. Alavi et al. (2015) and Zoellner and Schaefers (2015) added that the way in which the promotion is presented increases the likelihood of its take-up, which is seen by the significant increase in mean in this test.

These results are, however, not aligned with the initial premise made by Kahneman and Tversky (1979). According to the original 'loss aversion' theory, customers will be less willing to take up an offer from a promotion that is presented as a gain or savings, while their propensity to take up the same promotion when it is presented as an avoidance of a loss will be very high. This is observed in the results of the study, where a positive goal-framed promotion produced a more significant 'after' promotion mean POS volume than the negative goal-framed promotion, with the following significance levels: $p<0.001$ and $p=1.000$. These results were consistent with, and confirmed, the results found by Gamliel and Herstein (2011), in their study which contradicted the original 'loss aversion' principle.

It can be surmised that this unexpected result was due to the 'diminishing sensitivity' key component of prospect theory, which states that an individual or subject's sensitivity towards either a gain/savings or a loss lowers as the amount of change (or the percentage of change involved) lowers.

For example, a customer's sensitivity about saving R7,00 would be very low, which means that he or she would have less sensitivity about whether it is presented as a gain or loss. Alternatively, it could mean that the original loss-aversion predictions of prospect theory are invalid when it comes to price promotions. This would imply that marketers should present their price promotions as savings/gains, as framing them as a loss would not have the desired impact (as promised by the prospect theory). As the study was conducted in a short period of time, this may also have impacted the results.

As much as both types of goal framing of price promotions produced increases in the mean POS volume, the results clearly showed that retail banking marketers have a good chance of increasing their channel utilisation per customer by exploring the use of positive goal-framed price promotions. At the same time, they should be cautious about the amount or percentage of gain or loss being promoted. This will help them to avoid the 'diminishing sensitivity' aspect of prospect theory.

### 6.3 Framing of Price Promotions: Objective 2, Hypothesis 3

The second objective of this research was to determine and understand the impact that message framing, coupled with a price promotion, has on customer channel utilisation, which, in this case, is shown by the mean POS volume and value. This supports the notion of message framing, which suggests that the combination of price promotion and appropriate message framing increases the effectiveness of a marketing strategy. It is argued that it is not only price savings that influence the increase in demand but also the way in which the price promotion is presented. This influences the customer's judgment of gains or losses resulting from the transaction. This means that the presentation of a price promotion influences its take-up (Alavi et al., 2015; Barberis, 2013; Schmidt \& Zank, 2012).

In addition to goal framing, Gamliel and Herstein (2011) introduced risky choice framing. According to the authors, the idea behind risky choice framing is that people will usually prefer an option where static savings are presented to one where there is a probabilistic choice of unknown savings. On the other hand, if the loss is certain and savings are determined by probability, people tend to prefer the probabilistic option.

Risky choice framing is also defined by Choi et al. (2013) as discounts or price promotions that are offered in a manner similar to the lottery - where benefits are determined by chance. The customer believes that he or she will benefit by performing the required action, but it is not clear when the benefit will be received (that is, it is not clear how many times the promoted action should be performed). The customer keeps repeating the action in the hopes that he or she will receive the benefit.

The third null hypothesis, $\mathrm{H}_{0}$ : CCU RA $-\mathrm{CCU}_{\mathrm{BU}}>0$, aimed to assess the effect that a risky choice framed price promotion has on business impact, which, in this case, was defined as the mean POS volume and value. The hypothesis also aimed to establish which of the two types of risky choice framing (a promotion where the benefit or gain was determined by chance and a promotion where benefits were known upfront by all) produced the largest business impact.

A one-way ANOVA was run to test this hypothesis. The ANOVA results, as seen in Table 14 above, confirmed that there was a significant difference among the 'before' and 'after' promotion means and that the null hypothesis was therefore rejected. The Bonferroni post-hoc test was run to identify where the significance lies. (See Table 18).

The results affirmed the position of Lee and Tsai (2013) that price promotions are expected to increase sales or customer channel utilisation. The results also supported the theory that the extent to which the customer is willing to take up a promotion offer is based not only on the depth of the promotion offer but also on the way in which the promotion message is presented (Alavi et al., 2015; Barberis, 2013; Jones, 2007; Kahneman and Tversky, 1979; Schmidt and Zank, 2012; Zeisberger et al., 2010).

The POS volume after a price promotion where a customer's gain was determined by chance ( $M=5.900$, $S D=7.110$ ) was not significantly larger than the mean POS volume before the price promotion $(M=4.210$, $S D=5.286)$, with $p=1.000$.

The comparison results showed that the 'after promotion' mean POS volume of the price promotion campaign where benefits were known upfront by all ( $M=7.370$, SD $=7.941$ ) was significantly larger than the 'before promotion' mean POS volume ( $\mathrm{M}=$ $4.210, S D=5.286$ ), with $p<0.046$. The eta squared of 0.10 showed a magnitude of medium-to-large size effects.

The risky action price promotion, where the promotion benefit is known upfront by all, produced a significant increase in the mean POS volume of the 'after promotion' compared to the 'before promotion' mean POS volume. This resulted in an increase in the business impact, evidenced by the increase in customer banking channel utilisation, as indicated by the POS volumes generated by a customer in a month. However, the mean POS volume of the 'after price promotion', where benefits were determined by chance, did not result in a significant increase in mean POS volume when compared to the 'before promotion' mean.

These results were aligned with the initial hypothesis of Gamliel and Herstein (2011), namely that customers prefer options that present more static savings compared to probabilistic choices with unknown savings. On the other hand, if the loss is certain and savings are determined by probability, people tend to prefer the probabilistic option (Choi et al., 2013). Therefore, the means POS volume of the 'after price promotion', where benefits were known upfront by all and where savings were thus static, increased significantly. The mean POS volume of a price promotion where benefits were determined by chance, and where savings were thus probabilistic, did not increase significantly.

The results of this hypothesis provide retail bank marketers with clear advice in their drive to increase channel utilisation, namely that exploring the message framing of price promotions significantly increases channel utilisation (which, in this case, was the mean POS volume). The results clearly indicated that retail banking marketers have a good chance of increasing their channel utilisation per customer by exploring the use of risky choice price promotions when savings for customers are more static and not determined by probability.

The results do, however, pose a challenge to marketers. They prefer to pursue price promotions with customer benefits that are determined by chance, as these are becoming increasingly popular with other retailers. This is due to their cost savings when compared to other types of price promotion framings (Choi et al., 2013). This type of price promotion framing is said to bear some cost efficiencies, as the same discount can be used to persuade a large number of customers. This differs from static benefits, which are offered per customer and which therefore become costly for retailers.

### 6.4 Concerns

The significant increase in customer channel utilisation, shown by the results above, could also be related to seasonality, due to the time of year when the research was carried out (namely, approaching the festive period). The improvement in mean was not compared to data from previous years, as this was not available.

The research study was carried out in $6-7$ weeks. It was not possible to assess the longitudinal impact of introducing a price promotion during this period. It is possible that the study results would be different if a longer timeframe was allocated to each type of framing.

The explored impact of different types of message framing on customer channel utilisation was not comprehensive, as the interactions among the different framings were not tested. This was because each message framing was only exposed to its own group. The impact of different types of message framings could have been demonstrated better if a time-series experiment was run on the same group, with each framing being introduced in its own time and to the same group (and with adequate time being afforded to this). Alternatively, each of the four groups could have been exposed to two different framings to test their impact and interaction.

### 6.5 Summary of Discussions

Chapter 6 discussed the effectiveness of price promotions as a tool for improving customer channel utilisation and the impact of coupling those price promotions with message framing. Th effectiveness of each type of message framing was also discussed. The following key points were highlighted in the discussion:

The use of price promotions to increase customer channel utilisation in retail banking was proven to be effective. The 'after POS' mean volume and value increased significantly, as expected, after the introduction of a price promotion.

It was demonstrated that the use of message framing coupled with a price promotion results in increased customer channel utilisation. Four different types of framing were tested. These fell into two categories: goal framing and risky action framing. The results showed that most of the framings produced a significant increase in customer channel utilisation (which, in this case, was measured as the mean POS volume per customer). The exception was the price promotion where the benefits were determined by chance.

With regard to the effectives of the types of framing, the discussion showed that the positive goal-framed price promotions resulted in more significant increases in the mean POS volume than the negative goal-framed price promotions. Initially, the reverse was anticipated. In terms of the risky action framing of price promotions, the price promotion with static benefits that were known upfront by all resulted in a more significant increase in mean POS volume than a risky action framing where benefits were probabilistic and determined by chance (as the customer carried out the activity). This effects of a price promotion with static benefits compared to the one where benefits were determined by chance was as expected.

The risky action price promotion, where benefits were determined by probability as the customer carried out the promoted activity, resulted in a significant increase in the mean POS volume. This was expected.

Retail banking marketers have a good chance of increasing their customers' channel utilisation by using either positive goal-framed price promotions or price promotions where customer benefits are static and are known upfront by the customers. However, when comparing the two types of price promotion framings, the positive goal-framed price promotion (which produced the most significant results) proved to be the best option for retail bank marketers.

The following section confirms whether the research objectives of this study, as introduced in Chapter 1, have been met or not. There were two research objectives, discussed below:

The aim behind Research Objective 1 was to determine the impact of price promotions on the retail bank's customer channel utilisation or, more specifically, whether the introduction of a price promotion increases customer channel utilisation. As seen in the above results discussion for Hypothesis 1, the introduction of a price promotion increased channel utilisation (which, in the case of this research, was the mean POS volume).

The aim behind Research Objective 2 was to understand the impact that the message framing of a price promotion has on the uptake of the promotion (that is, whether customer channel utilisation increases). This objective was mainly to provide empirical evidence of the original 'loss aversion' concept of prospect theory and to determine which of the message framings had the most significant impact. The discussion of results, above, showed that message framing results increased channel utilisation and that the two most effective types of message framing are the goal-framed message and the message framing of price promotions where benefits to the customer are static and not determined by chance.

The impact of the 'loss aversion' theory was tested using negative and positive goal framing. Results showed that the positive goal-framed price promotion led to a more significant increase in mean POS volume when compared to the negative goalframed price promotion. This is empirical evidence against the 'loss aversion' aspect of prospect theory, which suggests that people are generally more willing to take up a promotion when it is framed as a loss than when it is framed as a gain.

## Chapter 7: Conclusion

### 7.1 Introduction

The intention behind the research study was to determine the impact that price promotions have on customer channel utilisation in retail banks and, more specifically, whether the introduction of price promotions increase customer channel utilisation. The aim was also to understand the impact that the message framing of price promotions has on the uptake of those promotions. The objective was mainly to provide empirical evidence of the original 'loss aversion' concept of prospect theory and to determine which types of message framing are the most impactful. The results of the study were consistent with the research hypotheses.

Lymperopoulos et al. (2013) have acknowledged the increasingly stiff competition in the financial services sector. The authors attributed this to changes in customer behaviour (customers want to know what they are paying for) and to tighter regulations around transparency and consumer protection.

Rizzi and Taraporevala (2019) added that as competition increases, it is critical for banks to reduce their cost to serve in order to compete with new non-traditional banks. As a result, banks are looking to increase utilisation of the self-service channels, including card purchases and internet banking. Marketers in retail banking are therefore faced with the challenge of developing innovative ways to increase customer utilisation of the channels (Hoehle et al., 2012).

According to Arce-Urriza et al. (2017); Grewal et al., (2011) and Zoellner and Schaefers (2015), price promotions are one of the simplest and most effective means of increasing sales and utilisation. The main aim of this study was to provide empirical evidence that they are indeed effective and that they can be used in retail banking to promote customer channel utilisation. A number of the authors proposed that the extent to which a customer is willing to take up a promotion offer is based not only on the extent to which the promotion offer is pitched but also the way in which the promotion message is positioned (Alavi et al., 2015; Barberis, 2013; Jones, 2007; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010).

An additional goal behind the study was to provide empirical evidence of message framing in price promotions. It also sought to determine the type of message framing that is most impactful in retail banking price promotions.

This chapter outlines the key findings from the discussion in Chapter 6 (as per the results in Chapter 5). The chapter concludes with a discussion of the implications and recommendations for retail bank executives and marketing managers. The final section in the chapter addresses the limitations of the research study as well as recommendations for future research.

### 7.2 Key Findings

The first key finding from the discussion of results in Chapter 6 is that price promotions are indeed effective in increasing customer channel utilisation (as identified Arce-Urriza et al., 2017) and are the marketing tool of choice for marketers who wish to do so. Arce-Urriza et al. (2017), Grewal et al. (2011) and Zoellner and Schaefers (2015) were in agreement about this.

Competition is becoming increasingly stiff in the banking industry. The need to reduce costs means that marketers are faced with the enormous challenge of persuading customers to increase utilisation of self-service channels (like card purchases).

Price promotion provides a mechanism for marketers to nudge their customers and to change their behaviour. Aydinli et al. (2014), Lee and Tsai (2013), and Zoellner and Schaefers (2015) predicted this when they argued that price promotions have long-lasting effects on customers. Marketers can therefore use price promotions to influence or induce behavioural changes in customers, to the business's advantage. Retail banking marketers can therefore use price promotions to direct their customers towards increased utilisation of the desired channels.

The second key finding from the results is that message framing, when coupled with price promotion, results in a significant increase in customer channel utilisation. This is supported by the message framing notion that a combination of price promotion and appropriate message framing, as shown by different effects of different framing of price promotion, enhances marketing effectiveness (Alavi et al., 2015; Barberis, 2013; Schmidt \& Zank, 2012). Therefore, the extent to which the customer is likely to take up a price promotion offer is determined not only by the magnitude of the offer but also by how the promotion message is presented (Alavi et al., 2015; Barberis, 2013; Jones, 2007; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010).

The third key finding is that, regarding price promotion, the original 'loss aversion' premise from prospect theory is violated. According to the prospect theory's 'loss aversion' principle, people tend to be risk-avoiding when faced with a gain-framed promotion and risk-seeking when faced with a negatively framed promotion (Alavi et al., 2015; Barberis, 2013; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010).

The findings of this study, as discussed in Chapter 6 above, confirmed the findings of Gamliel and Herstein (2011), namely that customers are more responsive and more prone to risk-seeking when a price promotion is presented as a gain or savings than when the promotion is presented as a loss. This finding violates the original 'loss aversion' principle.

The fourth and final key finding from the results discussion, above, is that the positive goal-framed price promotion and the risky choice price promotion, where benefits were static and known upfront by all, produced the largest significant increase in mean, respectively. The original hypothesis, as per the prospect theory and goal framing, was that the negative goal-framed price promotion would increase the mean more than the positive goal-framed price promotion would. This was, however, inconsistent with the results (as discussed above).

The positive goal-framed price promotion was observed as producing the most significant increase in mean, with the risky choice price promotion, where benefits were known upfront by all following. The risky choice goal framing, where customer benefits were determined by chance, was observed as producing the least increase in mean, despite its growing popularity because of cost efficiencies.

### 7.3 Recommendations

The following section highlights recommendations for bank executives and marketing managers. Price promotions have already been identified as one of the most straightforward and effective tools for increasing sales and customer channel utilisation. This study provided empirical evidence that price promotions are indeed effective at increasing channel utilisation. Bank executives and marketing managers are advised to give considerable thought to the use of price promotions in their strategies.

Message framing is recommended to increase the effectiveness of price promotions. The most effective framing of price promotions are positive goal-framed and risky choice promotions (where the benefits are known upfront by all customers). Marketing managers are encouraged to frame or continue framing their promotions using the words 'gain' and 'save'. When a marketer chooses risky choice framing, the most effective framing would be one where all campaign benefits are static and are known by all customers upfront, before the price promotion.

A negative goal-framed price promotion, which highlights the negative consequences of inaction, is not necessarily the most impactful type, when compared with positive goal-framed price promotions. The risky choice price promotion, where the promotion benefits for the customer are determined by chance, is not the most effective type of price promotion for increasing customer channel utilisation, despite its growing popularity due to its cost effectiveness.

### 7.4 Limitations

The following section discusses the limitations that were identified in the study.
Retail banks run price promotions to improve customer channel utilisation. The significant increase in customer channel utilisation (defined as the mean POS volume, this case, and shown in the results above) could potentially only occur during the promotion, or might continue afterwards. This means that an increase in utilisation may or may not be long term. The study was carried out as a crosssectional study. This means that the lasting effects of the price promotions could not be determined.

The research study was carried out in 6-7 weeks. For this reason, the longitudinal impact of the introduction of a price promotion could not be assessed. It is possible that the results would have been different if the differently framed price promotions took place over a longer period of time.

The significant increase in customer channel utilisation, evident in the results above, could potentially also be related to seasonality. The study took place just before the festive season. The improvement in mean was not compared to the previous year's performance, as the data was not available.

The four experiments (message-framed price promotions) ran concurrently, with different groups 'participating' in the study. Each framing was exposed to a designated group, and to that group only. As a result, the interactions among the different framings were not tested. The impact of different message framings could have been more clearly understood if a time-series experiment had been run on the same group, with each framing being introduced in its own time, to the same group (and given adequate time). Alternatively, each of the four groups could have been exposed to two different framings, to test the impact and observe some interaction effects.

Another identified limitation of the study is that only one data-collection method was used to collect data. An interview could potentially have been included, and a reflective study could have been explored.

The population was based in one country, in one company and in one industry. This may have limited the generalisation of the results to Southern Africa, in the same industry and possibly also other industries.

In addition, even though steps were taken to ensure external validity, study 'participants' were still exposed to manipulation by the natural environment. As an example, if the situation of participants was to change, this could affect how he or she reacts to a price promotion. This change could be caused by emotional stress, accidents, the death of a loved one, or a change in the person's needs as a customer.

With this study it cannot be proved that other competitors were still running competing promotions or not, as such the success of the price promotion cannot be assumed to be over and above other promotions.

### 7.5 Recommendations for Future Research

Price promotion is a marketing tool that is accepted and used widely - across various industries; it is used to increase sales (Arce-Urriza et al., 2017; Bayer \& Ke, 2013; Blattberg et al., 1995; Grewal et al., 2011; Zoellner \& Schaefers, 2015). The use of message framing in price promotion has gained in popularity. Some studies have confirmed, while others have invalidated, the original 'loss aversion' principle of prospect theory (Alavi et al., 2015; Barberis, 2013; Gamliel \& Herstein, 2011; Kahneman \& Tversky, 1979; Schmidt \& Zank, 2012; Zeisberger et al., 2010).

The research in this field is still growing. This study, and others before it, have demonstrated that there is still a need for future research in this area (Alavi et al., 2015; Barberis, 2013; Gamliel \& Herstein, 2011; Schmidt \& Zank, 2012).

Future research studies are suggested as follows:

A longitudinal study should be run to determine the effectiveness of price promotions in the long run, that is: to determine if the promotions lead to long-lasting increases in customer channel utilisation.

A time-series or repeated measures study may be beneficial to counteract any seasonal influences on the observed increase in customer channel utilisation. Interaction among framing effects should be tested by introducing different experiments to the same group, for example: a positive goal-framed promotion should be introduced to a group; a negative goal-framed promotion should then be introduced to the same group.

An experimental study that is supplemented by a reflective questionnaire can also be carried out to reduce the limitations of one data-collection method.

An experimental study should be run, where another price promotion is competing with the one that is being tested. This is the ultimate test to determine the resilience of a price promotion in the presence of a counter-promotion.

## References

Abdellaoui, M., Bleichrodt, H., \& Paraschiv, C. (2007). Loss aversion under prospect theory: A parameter-free measurement. Management Science, 53(10), 1659-1674. doi: $10.1287 / m n s c .1070 .0711$

Ahmetoglu, G., Furnham, A., \& Fagan, P. (2014). Pricing practices: A critical review of their effects on consumer perceptions and behaviour. Journal of Retailing and Consumer Services, 21(5), 696-707. doi: 10.1016/j.jretconser.2014.04.013

Alavi, S., Bornemann, T., \& Wieseke, J. (2015). Gambled price discounts: A remedy to the negative side effects of regular price discounts. Journal of Marketing, 79(2), 62-78. doi: 10.1509/jm.12.0408

Arce-Urriza, M., Cebollada, J., \& Tarira, M. F. (2017). The effect of price promotions on consumer shopping behavior across online and offline channels: Differences between frequent and non-frequent shoppers. Information Systems and e-Business Management, 15(1), 69-87. doi: 10.1007/s10257-016-0310-2

Aydinli, A., Bertini, M., \& Lambrecht, A. (2014). Price promotion for emotional impact. Journal of Marketing, 78(4), 80-96. doi: 10.1509/jm.12.0338

Barberis, N. C. (2013). Thirty years of prospect theory in economics: A review and assessment. Journal of Economic Perspectives, 27(1), 173-196. doi: 10.1257/jep.27.1.173

Barnham, C. (2015). Quantitative and qualitative research: Perceptual foundations. International Journal of Market Research, 57(6), 837-854. doi: 10.2501/jmr-2015-070

Bayer, R., \& Ke, C. (2013). Discounts and consumer search behavior: The role of framing. Journal of Economic Psychology, 39, 215-224. doi: 10.1016/j.joep.2013.08.003

Blattberg, R., Briesch, R., \& Fox, E. (1995). How promotions work. Marketing Science, 14(3), G122-G132. Retrieved from http://www.jstor.org/stable/184154

Bocchialini, E., lelasi, F., \& Rossolini, M. (2015). How does pricing affect customer attrition? Evidence from packaged account holders. Economic Notes, 44(1), 75100. doi: 10.1111/ecno. 12028

Calisir, F., \& Gumussoy, C. A. (2008). Internet banking versus other banking channels: Young consumers' view. International Journal of Information Management, 28(3), 215-221. doi: 10.1016/j.jijinfomgt.2008.02.009

Campbell, D., \& Frei, F. (2010). Cost structure, customer profitability, and retention implications of self-service distribution channels: Evidence from customer behavior in an online banking channel. Management Science, 56(1), 4-24. doi: 10.1287/mnsc.1090.1066

Chavan, J., \& Ahmad, F. (2013). Factors affecting customer satisfaction in retail banking: An empirical study. International Journal of Business and Management Invention, 2(1), 55-62.

Chen, S. S., Monroe, K. B., \& Lou, Y. (1998). The effects of framing price promotion messages on consumers' perceptions and purchase intentions. Journal of Retailing, 74(3), 353-372. doi: 10.1016/s0022-4359(99)80100-6

Choi, J., Lee, K., \& Ji, Y. (2012). What type of framing message is more appropriate with nine-ending pricing? Marketing Letters, 23(3), 603-614. doi: 10.1007/s11002-012-9164-7

Choi, S., Park, S., Qiu, C., \& Stanyer, M. (2013). The discount is unfair: Egocentric fairness in risky discounts. Journal of Economic Psychology, 39, 32-43. doi: 10.1016/j.joep.2013.06.007

Clemes, M. D., Gan, C., \& Zhang, D. (2010). Customer switching behaviour in the Chinese retail banking industry. International Journal of Bank Marketing, 28(7), 519-546. doi: 10.1108/02652321011085185

Gamliel, E., \& Herstein, R. (2011). To save or to lose: Does framing price promotion affect consumers' purchase intentions? Journal of Consumer Marketing, 28(2), 152-158. doi: 10.1108/073637611111115999

Ganzach, Y., \& Karsahi, N. (1995). Message framing and buying behavior: A field experiment. Journal of Business Research, 32(1), 11-17. doi: 10.1016/0148-2963(93)00038-3

Grewal, D., Ailawadi, K. L., Gauri, D., Hall, K., Kopalle, P., \& Robertson, J. R. (2011). Innovations in Retail Pricing and Promotions. Journal of Retailing, 87, S43-S52. doi: 10.1016/j.jretai.2011.04.008

Haas, E. (2015). How do innovative banking channels reduce costs in downscaling? SSRN Electronic Journal, 1-41. doi:10.2139/ssrn. 2568415

Hoehle, H., Scornavacca, E., \& Huff, S. (2012). Three decades of research on consumer adoption and utilization of electronic banking channels: A literature analysis. Decision Support Systems, 54(1), 122-132. doi:10.1016/j.dss.2012.04.010

Isabella, G., Pozzani, A. I., Chen, V. A., \& Gomes, M. B. (2012). Influence of discount price announcements on consumer's behavior. Revista de Administração de Empresas, 52(6), 657-671. doi: 10.1590/s003475902012000600007

Jones, S. C. (2007). Implications of behavioral decision theory for health marketing. Marketing Theory, 7(1) 75-91.

Kahneman, D., \& Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica, 47(2), 263. doi: 10.2307/1914185

Lee, L., \& Tsai, C. I. (2014). How price promotions influence postpurchase consumption experience over time. Journal of Consumer Research, 40(5), 943959. doi: 10.1086/673441

Lymperopoulos, C., Chaniotakis, I. E., \& Soureli, M. (2013). The role of price satisfaction in managing customer relationships: The case of financial services. Marketing Intelligence \& Planning, 31(3), 216-228.
doi: 10.1108/02634501311324582

Magatef, S. G., \& Tomalieh, E. F. (2015). The impact of customer loyalty programs on customer retention. International Journal of Business and Social Science, 6(8), 78-93.

Malhotra, N. K. (2007). Marketing research: An applied orientation (5 ${ }^{\text {th }}$ ed.). New Jersey: Pearson Education Inc.

Meyer-Waarden, L., \& Benavent, C. (2006). The impact of loyalty programmes on repeat purchase behaviour. Journal of Marketing Management, 22(1-2), 61-88. doi: 10.1362/026725706776022308

Mitchell, M., \& Jolley, J. (2012). Research design explained. Boston, MA: Cengage Learning.

Nitsure, R. R. (2003). E-banking: Challenges and opportunities. Economic and Political Weekly, 5377-5381.

Ricci, O., \& Caratelli, M. (2013). Consumer choice in retail banking: Are prices really relevant? SSRN Electronic Journal. doi: 10.2139/ssrn. 2290208

Rizzi, W., \& Taraporevala, Z. (2019, January). The balancing act: Omnichannel excellence in retail banking. McKinsey \& Company. Retrieved from https://www.mckinsey.com/industries/financial-services/our-insights/the-balancing-act-omnichannel-excellence-in-retail-banking

Saunders, M., \& Lewis, P. (2012). Doing research in business and management: An essential guide to planning your project. London: Pearson Education.

Schmidt, U., \& Zank, H. (2012). A genuine foundation for prospect theory. Journal of Risk and Uncertainty, 45(2), 97-113. doi: 10.1007/s11166-012-9150-8

Seo, K., Dillard, J. P., \& Shen, F. (2013). The effects of message framing and visual image on persuasion. Communication Quarterly, 61(5), 564-583. doi: 10.1080/01463373.2013.82240

Shaikh, A. A., \& Karjaluoto, H. (2016). On some misconceptions concerning digital banking and alternative delivery channels. International Journal of E-Business Research, 12(3), 1-16. doi: 10.4018/jebr. 2016070101

The South African Loyalty Landscape Whitepaper. (2018, October). South African Loyalty Landscape 2018/19. Retrieved from https://truth.co.za/2019/wp-content/uploads/Truth-BrandMapp-Loyalty-Whitepaper-201819.pdf

Wegner, T. (2012). Applied business statistics: Methods and Excel-based applications. Cape Town: Juta.

Weisstein, F. L, Asgari, M., \& Siew, S. (2014). Price presentation effects on green purchase intentions. Journal of Product \& Brand Management, 23(3), 230-239. doi: 10.1108/jpbm-06-2013-0324

Xue, M., Hitt, L. M., \& Chen, P. (2011). Determinants and outcomes of internet banking adoption. Management Science, 57(2), 291-307. doi: 10.1287/mnsc. 1100.118

Yan, C., Dillard, J. P., \& Shen, F. (2012). Emotion, motivation, and the persuasive effects of message framing. Journal of Communication, 62(4), 682-700. doi: 10.1111/j.1460-2466.2012.01655.x

Zakaria, I., Rahman, B. A., Othman, A. K., Yunus, N. A., Dzulkipli, M. R., \& Osman., M. A. (2014). The relationship between loyalty program, customer satisfaction and customer loyalty in retail industry: A case study. Procedia Social and Behavioral Sciences, 129, 23-30. doi: 10.1016/j.sbspro.2014.03.643

Zeisberger, S., Vrecko, D., \& Langer, T. (2010). Measuring the time stability of prospect theory preferences. Theory and Decision, 72(3), 359-386. doi: 10.1007/s11238-010-9234-3

Zoellner, F., \& Schaefers, T. (2015). Do price promotions help or hurt premiumproduct brands? Journal of Advertising Research, 55(3), 270-283.
doi: 10.2501/jar-2015-008

