

PREDICTIVE EFFECT OF THE RELATIONSHIP BETWEEN DEBT-INSTRUMENTS
AND TH USAGE OF SAVINGS TOOLS BY CONSUMERS

by

ARTHUR RISENGA

submitted in accordance with the requirements for

the degree of

MASTER OF COMMERCE

in the subject

BUSINESS MANAGEMENT

at the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: PROF H NIENABER

CO-SUPERVISOR: PROF C VAN AARDT

NOVEMBER 2012

Summary

This study seeks to show that a higher usage of debt instruments by consumers with limited available funds leads to the usage of savings tools to finance debt costs, which subsequently results in lower levels of savings. This was espoused by the literature on PFM and also proven by the test results from the research hypotheses that were computed by means of a logistic regression. The test results showed that there is a statistically significant relationship between the usage of debt instruments and the usage of savings tools. An emphasis is placed on the importance of savings as an integral component of the PFM concept: it is namely seen to be indispensable to good financial planning to ensure current and future consumer financial security. Therefore, this study concludes by highlighting the importance of consumers' financial-management skills in minimising debt costs to increase levels of savings by controlling higher consumption expenditure through debt.

Key terms

Debts instruments; savings tools; personal financial management; financial planning; financial security; financial wellness; research hypothesis; significant relationship; logistic regression; consumers.

Student number: **791-657-4**

I declare that this dissertation entitled *The relationship between debt-instrument take-up and the usage of savings tools by consumers: a personal-financial-management perspective* is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

SIGNATURE

(Mr)

DATE

ACKNOWLEDGEMENT

First and foremost I wish to thank Professor Hester Nienaber (supervisor) and Professor Carel Van Aardt (co-supervisor), who were my mentors since the day I registered for my master's degree, for their valuable time, selfless efforts, patience, commitment and expert advice throughout the challenging process of completing this dissertation.

I also wish to thank Mr Andries Masenge a senior statistician from the Office of Graduate Studies and Research (OGS&R) for his crucial inputs. He made it possible for this study to meet the required national and international standards by assisting me in the development of the statistical analytical model for this study.

I also wish to express my gratitude to Ms Alida Kühnast (language practitioner) for ensuring that this dissertation complies with the standards required by the University.

Lastly, I wish to thank everyone, including my colleagues, the BMR management and my family, who also contributed in one way or another to facilitating this process and who gave me the opportunity to complete this dissertation.

TABLE OF CONTENTS

	Page
LIST OF FIGURES	VII
LIST OF TABLES	X
CHAPTER 1: INTRODUCTION	
1.1 BACKGROUND	1
1.2 PROBLEM STATEMENT	2
1.2.1 RESEARCH HYPOTHESIS AND THE DECISION RULE	3
1.3 MOTIVATION FOR THE STUDY	5
1.4 SCOPE OF THIS STUDY	6
1.5 RESEARCH OBJECTIVES	7
1.6 ASSUMPTIONS AND LIMITATIONS OF THE STUDY	7
1.7 CONTRIBUTION	8
1.8 DEFINITIONS OF CONCEPTS	8
1.8.1 Personal financial management (PFM)	8
1.8.2 Debt	8
1.8.3 Consumer savings	9
1.8.5 Financial literacy	9
1.8.6 Financial vulnerability	9
1.9 STRUCTURE OF THE DISSERTATION	10

CHAPTER 2: REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

2.1	INTRODUCTION	11
2.2	PERSONAL FINANCIAL MANAGEMENT (PFM)	11
2.2.1	Impact of financial planning on savings	13
2.2.2	Impact of financial planning on savings by consumers with high debt levels	14
2.2.3	Funds available to consumers	20
2.2.4	Consumers' deposits into savings tools from 2006 to 2010	21
2.2.5	Consumer expenditure	22
2.2.6	Total funds available, expenditure and deposits by consumers	23
2.3	SAVINGS	24
2.3.1	IMPORTANCE OF SAVINGS	24
2.3.2	UNDERLYING FACTORS CAUSING CONSUMERS NOT TO SAVE	26
2.3.2.1	Other factors that contribute to lower savings	27
2.3.3	DEMOGRAPHIC INFLUENCE ON SAVINGS	29
2.3.4	TYPES OF SAVING	31
2.3.4.1	Short-term savings	32
2.3.4.2	Medium-term savings	34
2.3.4.3	Long-term savings	39
2.3.5	OTHER SAVING PRACTICES	41
2.4	CONSUMER DEBT	42
2.4.1	DEVELOPMENT OF CONSUMER DEBT	45
2.4.1.1	Civil judgments recorded for consumer debt	45
2.4.2	IMPORTANCE OF DEBT	46
2.4.2.1	Good and bad debt	47
2.4.2.2	Other factors that contribute to debt	48
2.4.3	DEMOGRAPHIC ATTRIBUTES OF DEBT	49

2.4.4	THEORY OF HOUSEHOLD INDEBTEDNESS AND FINANCIAL VULNERABILITY	49
2.4.5	Socioeconomic impact of indebtedness	52
2.4.6	Indicators of excessive debt	52
2.4.7	Benefits of reducing debt	53
2.5	TRENDS IN AND USAGE OF SAVINGS TOOLS AND DEBT INSTRUMENTS	53
2.5.1	Trends in and usage of some major savings tools by consumers	54
2.5.2	Trends in consumer debt-instrument usage	55
2.5.3	Debt instruments that impact on lower savings by consumers	57
2.5.4	Effect of debt on savings according to the type of debt	58
2.6	NEED FOR AND IMPORTANCE OF FINANCIAL LITERACY	59
2.7	CONCLUSION	62

CHAPTER 3: RESEARCH DESIGN

3.1	INTRODUCTION	64
3.2	RESEARCH DESIGN	65
3.2.1	Explanatory research	65
3.3	RESEARCH TECHNIQUES OF THE RESEARCH DESIGN	65
3.3.1	Research population	66
3.3.2	Sampling plan	66
3.3.2.1	Sample frame	67
3.3.2.2	Sample size	67
3.3.3	Research instrument	68
3.3.3.1	Questionnaire validation	69
3.3.4	Data-collection techniques and analysis procedure	70
3.4	RESEARCH ETHICS	71
3.5	DATA ANALYSIS	72

3.5.1	Choice of data-analysis techniques	72
3.5.2	Application of the logistic-regression model in relation to this study	75
3.5.2.1	The logistic-regression equation	76
3.6	CONCLUSION	79

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION OF RESULTS

4.1	INTRODUCTION	80
4.2	RESPONDENTS' DEMOGRAPHIC PROFILE	81
4.2.1	GENDER OF THE RESPONDENTS	81
4.2.2	EMPLOYMENT STATUS OF THE RESPONDENTS	82
4.2.3	RESPONDENTS' LEVEL OF EDUCATION	82
4.2.4	AGE DISTRIBUTION OF THE RESPONDENTS	83
4.2.5	RESPONDENTS EARNING AN INCOME	84
4.3	CONSUMER <u>SAVINGS-TOOL</u> AND <u>DEBT-INSTRUMENT-USAGE</u> ACCORDING TO DEMOGRAPHIC ATTRIBUTES	85
4.4	CONSUMER <u>DEBT-INSTRUMENT</u> USAGE ACCORDING TO DEMOGRAPHIC ATTRIBUTES	85
4.4.1	CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO GENDER	86
4.4.2	CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO EMPLOYMENT STATUS	88
4.4.3	CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO LEVEL OF EDUCATION	91
4.4.4	CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO AGE GROUP	95
4.5	CONSUMER <u>SAVINGS-TOOL</u> USAGE ACCORDING TO DEMOGRAPHIC ATTRIBUTES	98
4.5.1	CONSUMER SAVINGS-TOOL USAGE ACCORDING TO GENDER	99

4.5.2	CONSUMER SAVINGS-TOOL USAGE ACCORDING TO EMPLOYMENT STATUS	100
4.5.3	CONSUMER SAVINGS-TOOL USAGE ACCORDING TO THE LEVEL OF EDUCATION	104
4.5.4	CONSUMER SAVINGS-TOOL USAGE ACCORDING TO AGE	108
4.6	DISCUSSION OF THE FINDINGS OF THE ANALYSIS OF THE LOGISTIC-REGRESSION MODEL AND THE TESTING OF THE SUBHYPOTHESES	112
4.6.1	GOODNESS-OF-FIT TEST OF THE MODEL AND THE MAIN HYPOTHESIS	112
4.6.2	REGRESSION BETA (β)	114
4.6.3	EXPONENTS OF THE BETA (β) ODDS RATIOS	115
4.6.4	SIGNIFICANCE OF REGRESSION COEFFICIENTS	116
4.7	ANALYSIS OF THE REGRESSION β -COEFFICIENTS AND THE EXPONENTS OF THE BETA-ODDS RATIOS, AND THE SIGNIFICANCE OF THE COEFFICIENTS AND THE SUBHYPOTHESES TESTS	116
4.7.1	CREDIT-CARD USAGE	117
4.7.2	OVERDRAFT ON A BANK ACCOUNT	119
4.7.3	USAGE OF A FORMAL PERSONAL LOAN FROM A FINANCIAL INSTITUTION SUCH AS A BANK	121
4.7.4	USAGE OF A HOME LOAN/MORTGAGE	123
4.7.5	BORROWING AGAINST A POLICY	125
4.7.6	CAR FINANCE	127
4.7.7	STUDY/EDUCATION LOAN	129
4.7.8	BORROWING AGAINST A PENSION FUND	131
4.7.9	STORE/RETAIL CARDS	133
4.7.10	CREDIT FROM A FURNITURE STORE	135
4.7.11	INFORMAL PERSONAL LOANS (FROM MASHONISA/ MICROLENDERS)	137
4.7.12	LOAN FROM A STOKVEL/BURIAL SOCIETY	139

4.7.13	BORROWING FROM FAMILY OR FRIENDS	141
4.8	CONCLUSION	143

**CHAPTER 5: SYNTHESIS OF THE FINDINGS, CONCLUSIONS
AND RECOMMENDATIONS**

5.1	INTRODUCTION	152
5.2	SYNOPSIS OF THE LITERATURE ON PERSONAL FINANCIAL MANAGEMENT (PFM)	152
5.3	SYNTHESIS OF CONSUMER USAGE OF SAVINGS TOOLS AND CREDIT INSTRUMENTS ACCORDING TO DEMOGRAPHIC ATTRIBUTES SYNTHESIS OF CONSUMER USAGE OF SAVINGS TOOLS AND	154
5.3.1	Consumer usage of debt instruments	156
5.3.2	Consumer usage of savings tools	157
5.4	SYNTHESIS OF THE FINDINGS OF THE ANALYSIS OF THE LOGISTIC-REGRESSION MODEL AND THE RESEARCH HYPOTHESIS	159
5.5	CONCLUSIONS	163
5.6	RECOMMENDATIONS	164
5.7	LIMITATIONS OF THE STUDY	156
5.8	FURTHER RESEARCH	166
5.9	CONCLUDING REMARKS	167
	BIBLIOGRAPHY	168
	APPENDIX	185

LIST OF FIGURES

CHAPTER 2: REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

Figure 2.1:	Impact of financial planning on savings	13
Figure 2.2:	Impact of financial planning on indebted consumers with short to medium-term savings	15
Figure 2.3:	Cause effect chain regarding take up of debt instruments and the usage of savings tools	20
Figure 2.4:	Available funds to consumers from 2006 to 2010	21
Figure 2.5:	Amounts deposited by consumers from December 2006 to December 2011	22
Figure 2.6:	Consumer expenditure from 2006 to 2010	23
Figure 2.7:	Total funds available, expenditure and deposits by Consumers from 2006 to 2010	24
Figure 2.8:	Types of savings according to time span	32
Figure 2.9:	Components of consumer debt	43
Figure 2.10:	Trends and usage of some major savings tools by consumers between 2007 and 2011	54
Figure 2.11:	Trends in the usage of some major debt instruments by consumers between 2007 and 2011	56
Figure 2.12:	Credit granted per credit type (Rand value)	57
Figure 2.13:	Type of debt instruments contributing to lower savings by consumers	58
Figure 2.14:	The impact of the type of debt on consumer savings	59

CHAPTER 3: RESEARCH DESIGN

Figure 3.1: LOGISTIC REGRESSION MODEL	74
---------------------------------------	----

LIST OF TABLES

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION OF RESULTS

TABLE 4.1: GENDER OF RESPONDENTS	81
TABLE 4.2: EMPLOYMENT STATUS OF RESPONDENTS	82
TABLE 4.3: RESPONDENTS LEVEL OF EDUCATION	82
TABLE 4.4: AGE DISTRIBUTION OF THE RESPONDENTS	83
TABLE 4.5: RESPONDENTS WHO EARN INCOME	85
TABLE 4.6: CONSUMERS USAGE OF DEBT INSTRUMENTS BY GENDER	86
TABLE 4.7: CONSUMERS USAGE OF DEBT INSTRUMENTS BY EMPLOYMENT STATUS	88
TABLE 4.8: CONSUMERS USAGE OF DEBT INSTRUMENTS BY LEVEL OF EDUCATION	92
TABLE 4.9: CONSUMERS USAGE OF DEBT INSTRUMENTS BY AGE	95
TABLE 4.10: CONSUMERS USAGE OF SAVINGS TOOLS BY GENDER	99
TABLE 4.11: CONSUMERS USAGE OF SAVINGS TOOLS BY EMPLOYMENT STATUS	101
TABLE 4.12: CONSUMERS USAGE OF SAVINGS TOOLS BY LEVEL OF EDUCATION	104
TABLE 4.13: CONSUMERS USAGE OF SAVINGS TOOLS BY AGE	108
TABLE 4.14: HOSMER-LEMESHOW GOODNESS-OF-FIT TEST	113
TABLE 4.15: CREDIT CARDS	118
TABLE 4.16: OVERDRAFT ON THE BANK ACCOUNTS	120
	VIII

TABLE 4.17: PERSONAL LOAN FROM FINANCIAL INSTITUTION LIKE A BANK	122
TABLE 4.18: HOME LOAN/MORTGAGE	124
TABLE 4.19: BORROWING AGAINST A POLICY	126
TABLE 4.20: USAGE OF CAR FINANCE	128
TABLE 4.21: STUDY/EDUCATIONAL LOAN	130
TABLE 4.22: BORROWING AGAINST PENSION FUND	132
TABLE 4.23: STORE/RETAIL CARD	134
TABLE 4.24: CREDIT FROM A FURNITURE STORE	136
TABLE 4.25: INFORMAL PERSONAL LOAN – FROM MASHONISA/ MICRO-LOANS	138
TABLE 4.26: LOAN FROM STOKVEL/BURIAL SOCIETY	140
TABLE 4.27: BORROWING FROM FAMILY OR FRIENDS	142
TABLE 4.28: THE MOST COMMONLY AND FREQUENTLY USED DEBT INSTRUMENTS ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES	144
TABLE 4.29: THE MOST COMMONLY AND FREQUENTLY USED SAVINGS TOOLS ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES	146
TABLE 3.30 SYNOPSIS OF SAVINGS TOOLS WHICH HAVE A STATISTICALLY SIGNIFICANT EFFECT IN RELATION TO THE DEBT INSTRUMENTS HOSMER-LEMESHOW GOODNESS-OF-FIT TEST	149

CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

A high level of consumer financial vulnerability among South Africans often goes in tandem with a higher rate of indebtedness and lower savings. Monden (2009) postulates that economic and financial statistics show that people with heavier debt burdens are less financially secure than less indebted people.

The above is evident from the findings published by FinMark Trust (2010) based on the quarterly Consumer Financial Vulnerability Index (CFVI) of the Bureau of Market Research (BMR) which show that consumer financial vulnerability, especially with regard to income and savings vulnerability, increased since the fourth quarter of 2009.

To ensure a high level of consumer financial well-being, good personal financial planning and management is necessary and should be encouraged. This becomes crucial in view of the fact that diminishing savings levels and escalating debt levels have the potential to create a disastrous situation for individuals, households, communities, or the nation as a whole (Losby, 2008). This is especially evident from the long-term deposits of more than six months made by consumers which were reported to be lower than 10% in the period from 2006 to 2010. as shown by the SARB BA 900 forms.

Studies show that a prerequisite for good financial planning and management is a good knowledge of personal financial management (PFM) (Swart, 2002). This essentially brings to the fore the significance of PFM knowledge and education for consumers. Struwig and Plaatjes (2007) further attest to the fact that a lack of education in personal finances gives rise to personal financial problems, which may detrimentally affect an individual's well-being.

There is a growing body of evidence that shows that consumer' high debt levels and diminishing savings potentially manifest in the erosion of corporate profits, stock prices and employment (Wells, 2000). This alludes to the fact that a high consumer financial vulnerability affects the manner in which consumers conduct their transactions (e.g. they may have difficulties in servicing their high debt with business which, in turn, could adversely affect business operations and, due to a lower revenue, could subsequently pose a threat to business survival in the long run).

Findings from the 2011 South African Reserve Bank (SARB)'s *Financial Stability Review* further attest to this point by showing that in the fourth quarter of 2010 the confidence-index scores with respect to retail banks fell sharply due to deterioration in profitability and a downbeat short-term economic outlook (SARB, 2011a). Also, of the total credit-active consumers (18.60 million) in the first quarter of 2011, 46.4% had impaired credit records (National Credit Regulator, 2001 cited in SARB, 2011b).

It is because of the importance of and the role played by consumer financial wellness as far as the financial stability of households and the economy as a whole is concerned that this study is so relevant from the PFM perspective. It is on this premise that the role of PFM is central in this study, where savings and debt are seen to constitute the main components of consumer financial vulnerability which reflect on consumer financial wellness. Therefore, it is on this basis that this study aims to determine if there is a statistically significant relationship between savings-tool usage and debt-instrument take-up to provide a plausible explanation for a change in the consumer savings rates and level of indebtedness as an indicator of a consumer level of good PFM.

1.2 PROBLEM STATEMENT

The problem statement of this study is based on the premise that low savings rates accompanied by high levels of indebtedness are detrimental to the socioeconomic welfare of consumers and the national economy. Studies show that inadequate savings

affect not only consumers' financial management, but also their mental well-being and ability to retire and to cover financial emergencies (Hyun Cho, 2009).

The Financial Intermediaries Association of South Africa recently reported that over the past few years an increasing number of people in South Africa deviated from their long-term savings goals, thus putting themselves and their future at risk (*Business Report*, 2010). This view is shared by the South African Savings Institute (SASI, 2010a), according to which the trend of South Africans not saving appears to be worsening each year, influencing the propensity to borrow and a consequent increase in consumer debt levels, which in the long run may adversely affect consumer financial well-being.

1.2.1 RESEARCH HYPOTHESIS AND THE DECISION RULE

To guide the research conducted for the purpose of this study the following research hypothesis was formulated:

H_0 : There is no statistically significant relationship between debt - instrument and savings-tool usage.

H_1 : There is a statistically significant relationship between debt - instrument and savings-tool usage.

Decision rule

The decision to accept or reject the null hypothesis H_0 is based on the number of types of savings tool that are statistically significant in relation to the debt instruments and is stated as follows:

Decision rule

- If $n_{hs} \geq 4$, then the savings tools have an overall significant relationship with the debt instruments.

- If $n_{hs} < 4$, then the savings tools do not have an overall statistically significant relationship with the debt instruments.

Where: n_{hs} = the number of the significant hypothesis and 4 is the number of types of savings tool among the 6 types of saving, namely short-term savings: savings accounts such as Mzanzi, savings accounts other than Mzanzi, and savings accounts/investment accounts (fixed-term)

- **Short-term savings:** savings account – Mzanzi, savings account other than Mzanzi, savings account/investment account (fixed-term)
- **medium-term savings:** unit trusts, shares (JSE-listed companies), stokvels
- **long-term savings:** endowment/retirement annuities, pension funds
- **short-term insurances:** funeral insurances, household/car insurances
- **medium-term insurances:** educational plans/policies, medical insurances/funds
- **long-term insurances:** life-cover policies

These types of savings tool will play a key role in determining the decision rule to either reject or accept the null hypothesis. This implies that the decision to reject the H_0 will be based on the following criteria: the savings tools should have a statistically significant relationship with the debt instruments, and there must be no fewer than 4 (67% or higher) types of savings tool among the 6 types of savings tool that are statistically significant in relation to each of the 13 credit instruments. Therefore, there will be 13 subhypotheses tested regarding the statistical significance of the relationship between the 14 credit instruments and the 15 savings tools.

The main H_0 is tested prior to the testing of the sub - hypotheses by using the Hosmer-Lemeshow Goodness-of-Fit test (see chapter 3 for details, which summarises the

statistical significance of the relationship between all the debt instruments and the savings tools, and the results of which are indicative of the model fit.

1.3 MOTIVATION FOR THE STUDY

The rationale for the study is to highlight some of the underlying dynamics of low savings and indebtedness among South African consumers within the context of PFM. Studies show that this situation is exacerbated by the current unfavourable economic conditions and lack of financial planning by consumers due to a limited knowledge of PFM.

Research in the area of financial management is imperative to broaden the understanding necessary to help individuals manage their debt and personal finances in an effective manner (Kotzé, 2006:09).

The SARB BA 900 forms from 2006 to 2010 show a relatively higher proportion of nondurables (27.46%) and debt servicing (29.63%) in the household-consumption basket as a result of a higher consumer credit take-up and also a total consumer spending almost equivalent to the total funds available to consumers, with the total consumer spending ranging from 16.04% in 2006 to 22.85% in 2010 and the total funds available ranging from 15.75% in 2006 to 23.15% in 2010.

It was also evident that credit take-up and wages/salaries constituted a relatively higher proportion (67.15%) of the total funds available to consumers, indicating that consumers rely heavily on these two items as their main sources of available funds. The almost equivalent proportions of total consumer spending and total funds available suggest that consumers utilise almost all their available funds to finance their spending. As a result, consumers are left with little funds to save in savings tools, as evidenced by the relatively lower proportions of total deposits in savings tools by consumers, ranging from 11.91% in 2006 to 18.57% in 2010.

The relevance and link of this study, more especially from a PFM perspective, to the field of business management is made possible by elaborating the importance of understanding the role played by consumers as an integral component of the business enterprise. Increasing consumer debt coupled with higher spending levels results in lower savings and consequently financially unwell consumers, which may manifest in higher levels of consumer financial vulnerability. Consumers' inability to service higher debt costs may translate into a lower revenue and turnover in business, which could adversely affect prospects of success and may seriously threaten the long-term survival of the business.

The above is further affirmed by Tharpe (1997, cited in Wells, 2000), who attests that if, for example, interest rates were to rise with such high levels of debt, it could result in reduced consumer spending followed by a slower growing economy with adverse consequences for corporate profits, stock prices and employment.

Worthington and Britton (2003) further postulate that businesses' ability to identify and meet customers' needs is fundamental to organisational survival and prosperity. Jack (2009) further affirms that product innovation and general business growth may result from a clearer understanding of savings.

It is on this premise that the importance of the findings of this study would be well suited not only to consumers but also to business organisations, and more specifically to financial institutions, by providing insight into the factors pertinent to the underlying dynamics of the relationship between consumer savings and debt-instrument take-up.

1.4 SCOPE OF THIS STUDY

The data used in this study were gathered from a naturally representative sample of consumers coming from selected municipal districts in the nine provinces of South Africa. These municipalities were disaggregated according to the type of area, namely urban, peri-urban and rural areas. This also allowed for the respondents to be disaggregated proportionately according to income categories such as high-, middle-

and low-income households across all four the main population groups to allow for a fair representation of the all the citizens.

1.5 RESEARCH OBJECTIVES

The primary objective of the study is to extend the analysis of the variables used in the 2009 BMR and FinMark Trust CFVI study for measuring consumer savings-tool usage and the variables used for measuring indicators of consumer debt obligations by measuring the statistically significant relationship between consumer debt-instrument take-up and consumer savings-tool usage.

The study aims to extend the analysis by using a logistic-regression model for measuring the extent to which debt-instrument take-up is statistically significantly related to savings-instrument usage.

The secondary objective of the study is to explore the role of savings and debt within the context of PFM and to determine the drivers of savings and debt and their impact on consumer financial well-being.

1.6 ASSUMPTIONS AND LIMITATIONS OF THE STUDY

The first assumption is that the sample of respondents who participated in the study for generating data used in the analytical model was representative of all consumers in South Africa.

In terms of the regression model it is assumed that by determining the strength of the relationship between consumers' engagement in savings practices through the usage of certain savings instruments and consumers' usage of credit instruments as an indication of indebtedness, the strength of the relationship between the usage of credit instruments and the usage of savings can be determined and predicted.

1.7 CONTRIBUTION

This study contributes to the body of knowledge and literature on PFM research and also aims to contribute by providing an insight into the importance of PFM as far as minimising higher consumer debt-instrument-usage levels and increasing consumer savings levels are concerned.

The study also seeks to provide insight into financial institutions as well as government agencies regarding consumer saving behaviour. This will form a basis for developing measures to address issues of public awareness and financial education regarding the socioeconomic benefits of saving, as well as for developing strategies to encourage a culture of saving to address financial vulnerability among South Africans.

1.8 DEFINITIONS OF CONCEPTS

1.8.1 Personal financial management (PFM)

Struwig and Plaatjes (2007:22) refer to PFM as a set of activities that include planning and decision-making, organising, implementing and controlling the allocation of income and the accumulation of wealth by an individual or a family with the aim of achieving implicit or explicit financial goals in an efficient and effective manner.

1.8.2 Debt

The concept “debt” is defined within the context of the amount owed by consumers in two major components differentiated by Van der Walt and Prinsloo (1995) as mortgage advances (i.e. the amount owed in long-term instruments) and consumer debt (i.e. the amount owed by consumers in short - to medium-term instruments). These long- and short-term consumer debts are also categorised as liquid or illiquid, secured or unsecured, debt (Driver, 2010).

1.8.3 Consumer savings

In the literature there are numerous definitions pertinent to the concept “consumer savings”, depending on the context within which the concept is defined. For the purposes of this study the term “consumer savings is defined as the total amount of money locked into short-, medium- and long-term savings instruments.

1.8.4 Financial knowledge

Financial knowledge includes knowledge regarding general personal finances, retirement plans, employee benefits, credit and money management and consumer rights (Kim, 2000).

1.8.5 Financial literacy

Financial literacy is the ability to read about, analyse, manage and communicate about personal financial conditions that affect material well-being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy (Anthes, 2004). Garman and Fogue (2008) define financial literacy as the knowledge of facts, concepts, principles, and technological tools that are fundamental to being smart about money.

1.8.6 Financial vulnerability

Financial vulnerability is defined as a personal feeling of being in a financially unstable situation. This is perceived as an early indicator of financial stress in households or individuals. Consumers’ state of financial vulnerability is caused mainly by factors emanating from the macroenvironment such as unfavourable economic conditions and an unstable political situation, resulting in loss of income, inability to service debt, and a decline in savings and household expenditure (Genworth Financial, 2010)

1.9 STRUCTURE OF THE DISSERTATION

The dissertation is divided into five chapters focusing mainly on the following: an introduction, a literature review, an exposition of the methodology and empirical analysis, and conclusions and recommendations.

Chapter 1 contains an introduction and a general background to the research problem, the problem statement, the motivation for the study, the scope of the study, the research objectives, the conceptual framework (the research analytical model), limitations of the study, and the structure of the dissertation.

Chapter 2 contains a review of the theoretical and empirical literature relevant to the concepts “savings” and “consumer financial vulnerability” relevant to this study, including a detailed exposition of consumer savings practices and tools, and financial vulnerability.

Chapter 3 contains a detailed exposition of the research methodology and data analysis.

Chapter 4 contains a detailed discussion of the research findings.

Chapter 5 contains the conclusions and recommendations.

CHAPTER 2

REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

2.1 INTRODUCTION

This chapter contains an exposition of the literature on the theory of PFM upon which this study is based and serves as a framework for guiding the study and subsequently supporting the conclusions of this dissertation.

Pertinent aspects within the context of the PFM theory will be explored, and here especially concepts that underscore the objectives and main research questions of this study. In view of the much broader scope of the processes and components embedded in the concept “PFM” and also for the purposes of this study the review of the literature will be focused mainly on aspects related to personal financial planning, financial literacy, and major types of savings tool and debt instrument used by consumers. The interaction of and influences among these aspects will be explored within the context of PFM and consumer demographic attributes affecting the trends in the aspects of savings and debt practices will be highlighted.

A conceptual framework linking various aspects of the related literature will be explored by determining the relationship between consumer debt-instrument take-up and savings-tool usage by means of a logistic-regression analysis.

2.2 PERSONAL FINANCIAL MANAGEMENT (PFM)

For the financial resources of individuals or households to be applied in an effective manner efficient personal financial management and planning is required (Swart, 2002).

The concept “financial management” is broadly defined as a set of activities including planning and decision-making, organising, implementing and controlling the allocation of income and the accumulation of wealth by an individual or family, with the aim of achieving implicit or explicit goals in an effective manner (Struwig & Plaatjes, 2007:22).

This concept is further espoused by Rabenowitz, Botha, Goodall, Geach, Du Preez & Rossini (2010), who affirm the essence of financial management as a process which entails determining an individual’s short-, medium-, and long-term financial goals, purpose in life and life priorities after considering his or her resources, risk profile and current lifestyle in order to detail a balanced and realistic plan achieve those goals.

The process of financial management highlights the issue of financial goals in terms of time span and other factors to be considered for achieving those goals. This means that if a consumer’s financial goals are to increase savings and lower debt, these goals should be defined in terms of a time span, such as the short-, medium- and long-term types of saving that the consumer could choose from.

Other considerations in terms of resources could include consumers’ level of income, consumers’ life priorities could for example imply saving for retirement or a child’s education, and consumers’ current lifestyle could entail reducing spending on debt.

Inevitably, central to the theme of PFM is the process involving planning around financial resources to achieve life goals (O’Neill, 2002 and Financial Planning Institute, 2011). This process involves mainly planning one’s spending, financing, and investing in order to optimise one’s financial situation (Redhead, 2008).

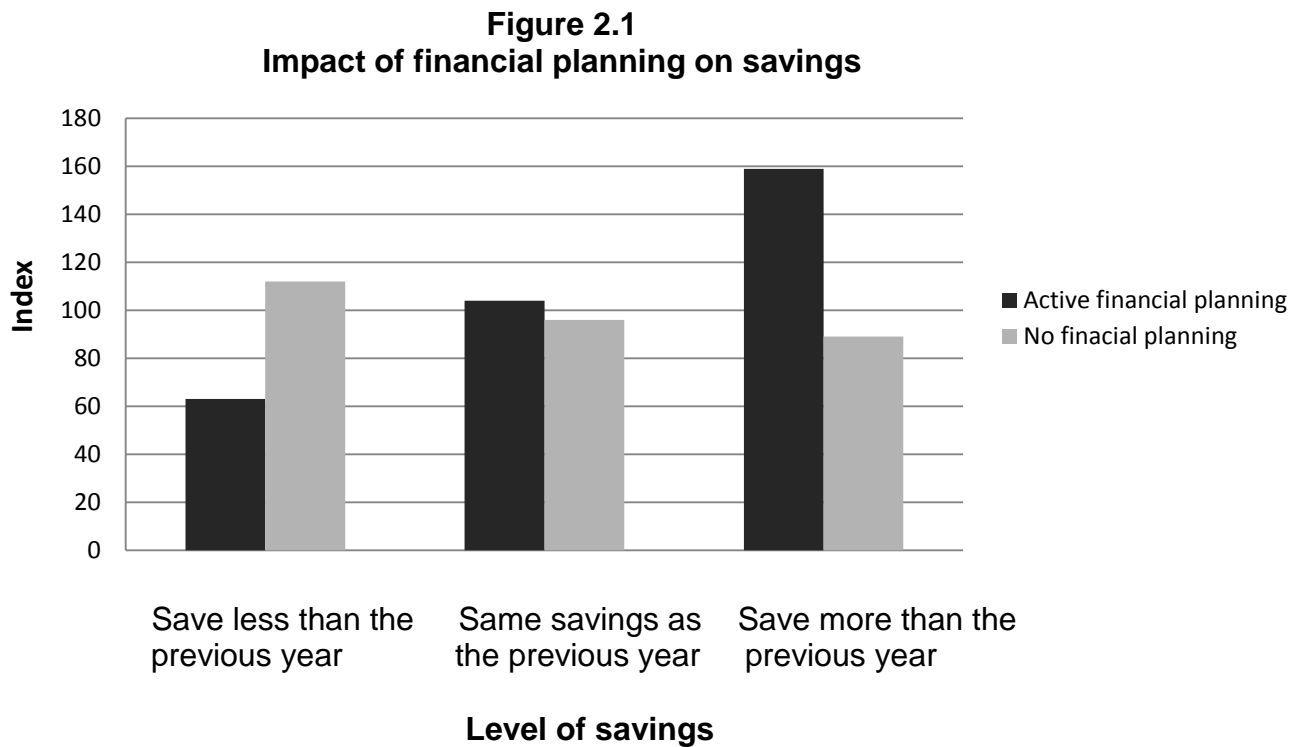
Altfest (2004) further maintains that the planning process embedded in financial management is future-oriented - which means preparing for future household financial needs in a most effective and efficient manner. Joehnk, Billingsley & Gitman (2011), concurring with the above, add that financial objectives can best be achieved through

personal financial planning, which also helps to define one's financial goals and to develop appropriate strategies for achieving these goals.

The *Old Mutual Savings Monitor* also shows that poor financial-planning habits are at the root of poor money management (*Old Mutual Savings Monitor*, 2010b).

2.2.1 Impact of financial planning on savings

The role of financial planning in ensuring savings and effective debt management is clearly illustrated by the findings of the *Old Mutual Savings Monitor* study (2010g) which showed that consumers who are actively involved in financial planning save more than consumers who do not plan their finances.



Source: *Old Mutual Savings Monitor*, 2010g

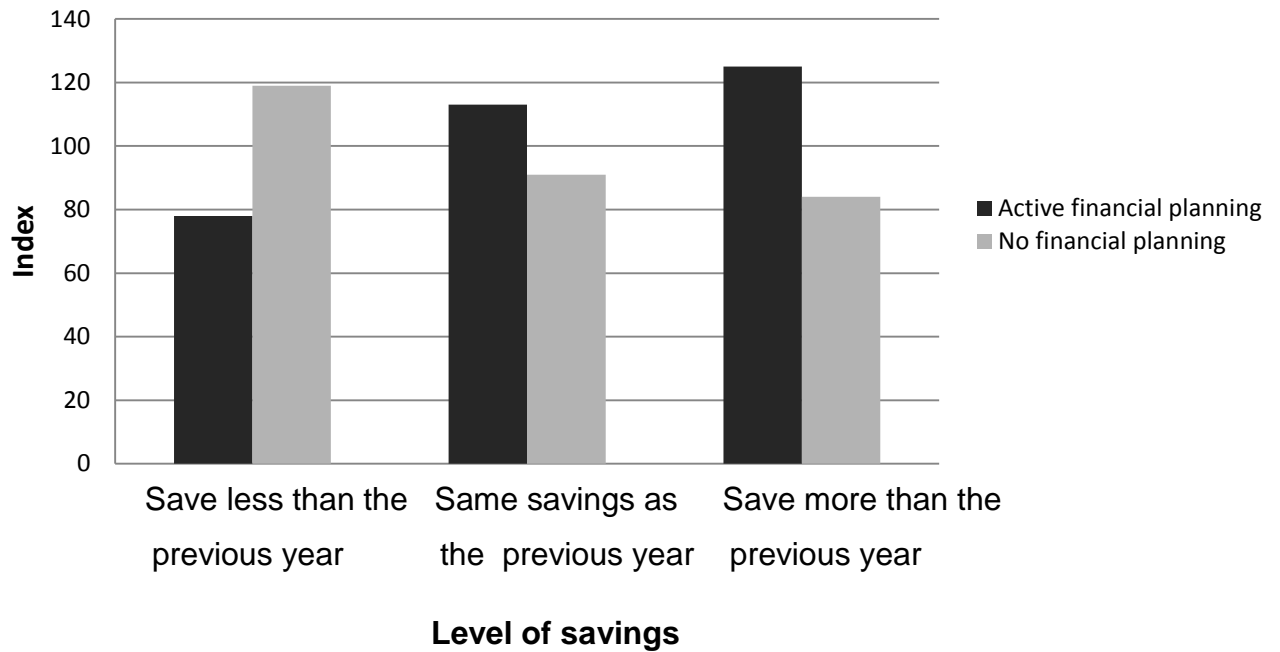
Figure 2.1 shows that the majority of consumers who saved less than the previous year indicated that they never engaged in any financial-planning activity. The influence of financial planning on consumers' level of savings is further demonstrated by the fact that nearly half of the consumers who were actively involved in financial planning saved more than the previous year, compared with consumers who did not engage in financial planning.

2.2.2 Impact of financial planning on savings by consumers with high debt levels

The literature shows that in general indebted consumers are inclined to save less. This idea is reflected in the study by Raijas, Lehtinen and Leskinen (2010), who maintains that in recent times consumers have become more positively inclined towards credit, and less positively inclined towards saving.

According to the *Old Mutual Savings Monitor* (2010g) indebted consumers with short- to medium-term financial planning ranging from 5 to 10 years save more than other indebted consumers who do not engage in financial planning (see fig. 2.2).

Figure 2.2
Impact of financial planning on indebted consumers with short to medium-term savings



Source: *Old Mutual Savings Monitor*, 2010g

Figure 2.2 shows that more indebted consumers who are not involved in financial planning gradually save less than the previous year, compared with consumers with a financial-planning period ranging from 5 to 10 years.

In essence, the significance of financial planning as an important component within the framework of PFM as constructed by Struwig and Plaatjes (2007) provides the premise for the theory underlying this study. It is for this reason that the importance of financial planning should be given due attention.

Rabenowitz et al. (2010) and Altfest (2004) indicate some of the most common benefits of financial planning, namely:

- maintaining the balance of capital and income

- risk management - incorporating insurance policies and other practices to establish and mitigate household exposure to uncertainty via long- or short-term insurance
- tax planning - legitimately minimising taxation
- investments - achieving an acceptable level of investment return by deploying resources in an efficient manner through a balanced investment portfolio for the future
- achieving an appropriate structure of liabilities and debt reduction
- estate planning - organising finances with due consideration of other household members and people and causes: most typically for the period beyond the demise of the asset holder
- cash-flow planning - balancing the timing of cash outflows and inflows, and adopting savings practices and prudent spending mechanisms
- retirement planning - balancing the current lifestyle with a future lifestyle, entailing life-cycle planning for the period in which work-related income ceases
- establishing regular and clearly defined reviews of financial plans

Joehnk et al. (2011:08) also maintains that successful planning brings rewards such as greater flexibility, an improved standard of living, wise spending habits, and increased wealth.

Rabenowitz et al. (2010) assert the notion that financial planning is a complex matter because life goals differ from individual to individual. Therefore, in order to customise a financial plan it is imperative to take all the personal and financial circumstances of a particular individual or household such as the following into account:

- existing financial and other responsibilities, age, availability of funds, existing portfolio, attitude to risk, existing debt management
- lifestyle goals and objectives
- financial goals and objectives
- time frames (including short-, medium- and long-term plans)
- Making the most suitable choices with regard to investment decisions

The circumstances of the individual or household apart, the financial-planning process in general comprises numerous generic phases and incorporates all the items and components of the financial goals of an individual or household (Altfest, 2004; Struwig & Plaatjes, 2007; Swart, 2002).

The following are considered to be the main steps in the financial-planning process advocated by Joehnk et al. (2011:08)

- Step 1: Define financial goals, such as financial security and independence at retirement.
- Step 2: Develop financial plans and strategies to achieve these goals.
- Step 3: Implement the financial plans and strategies.
- Step 4: Periodically develop and implement budgets to monitor and control progress toward the goals.
- Step 5: Use financial statements to evaluate the results of the plans and budgets, taking corrective action as required.
- Step 6: Redefine the goals and revise the plans and strategies as personal circumstances change.

In view of the diversified financial circumstances of individuals and households and their ability to carry out the financial-planning process to achieve their financial objectives and lifestyle goals, it is often essential and advisable to seek advice and guidance from financial planners (Rabenowitz et al., 2010).

The emergence of a multitude of financial products offered by financial institutions requires informed decisions and the necessary financial knowledge to avoid selecting financial products such as credit cards, cheque-account overdrafts and personal loans that may lead to unnecessary overspending, giving rise to increased debt levels. Intensive marketing campaigns by financial-sector institutes contributed significantly to the accessibility of the said financial products which may not be suitable for consumers who are prone to uncontrollable and excessive spending. Such consumers may then be

confronted with overwhelming personal financial obligations and intensified financial-management problems (Struwig & Plaatjes, 2007).

Garman, Kim, Kratze, Brunson and Joo (1999, as cited in O'Neill, 2002) point out that proper financial management is equivalent to financial wellness and that commonly used indicators of good financial management are, *inter alia*, effective credit management, low debt-to-income ratios, adequate insurance coverage, positive cash flow, increasing net worth, and having a financial plan. This is further espoused by Powe (2000) and Wilcox (2001) (cited in O'Neill, 2002), who postulate that financial wellness should be devoid of the following major financial woes: bankruptcy, lack of emergency reserves, uninsured losses, or comparisons of one's personal financial situation with that of other people.

Kotzé (2006) affirms that it is impractical to expect individuals to manage their personal finances effectively without the necessary knowledge of basic financial-management practices. It is on this premise that Kotzé (2006) deduced that the influence of other socioeconomic matters apart, South Africans struggle with problems regarding the management of personal financial debt and further points out that this is worsened by the easy availability of debt products from financial institutions, making individuals and households susceptible to the debt trap.

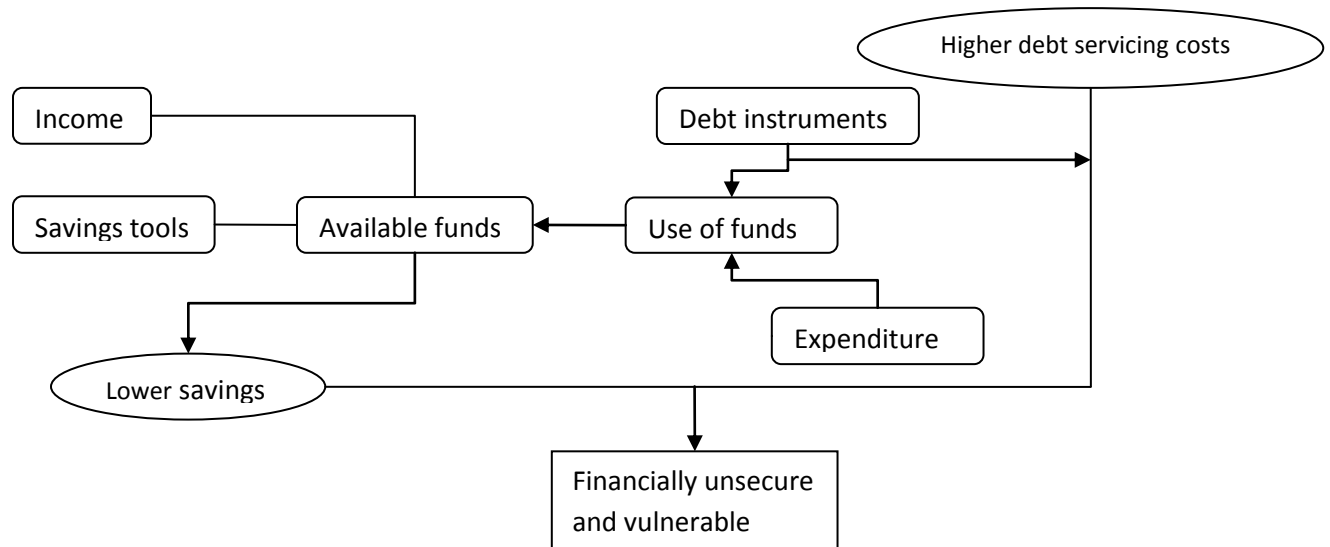
Good personal-debt management is deemed to be indicative of good financial behaviours resulting from effective financial management. This is confirmed by the results from the *Old Mutual Savings Monitor* (2010g) and clearly coincides with Swart (2002), who attests that efficient financial management is a prerequisite for effective usage of the financial resources of individuals or households.

In the context of good financial behaviours, Kotzé (2006:47) highlights the correlation between personal savings and personal debt which is considered to be an inverse relationship, with an increase in debt inevitably leading to a decrease in savings.

Savings and debt planning are part of the integral components of numerous PFM frameworks, as illustrated by Struwig and & Plaatjes (2007), and also constitute important variables within the management of personal finances used to investigate individuals' knowledge of PFM. The aspect of financial planning in the PFM process places an emphasis on the importance of cash-flow planning, entailing balancing the timing of cash outflows and inflows, adopting savings practices and prudent spending mechanisms, and maintaining the balance of capital and income.

It is on this premise that funds available, expenditure and deposits into various savings tools by consumers provide the basis for this study to determine the relationship between consumer debt-instrument take-up and savings-tool usage. It is expected that the outcome of the relationship will be indicative of consumers' financial condition in terms of savings and debt levels. That will be illustrated, for instance, where a higher debt- instrument take-up may lead to lower savings levels. It is anticipated that due to higher debts, consumers may use their available funds and part of their savings to service their debt and also to spend on their expenditure. Higher debt-servicing costs and lower savings could then cause consumers to be financially unsecure and vulnerable. This scenario is depicted in figure 2.3.

Figure 2.3
Cause-effect chain regarding the take-up of debt instruments
and the usage of savings tools



Source: Van Aardt, 2010

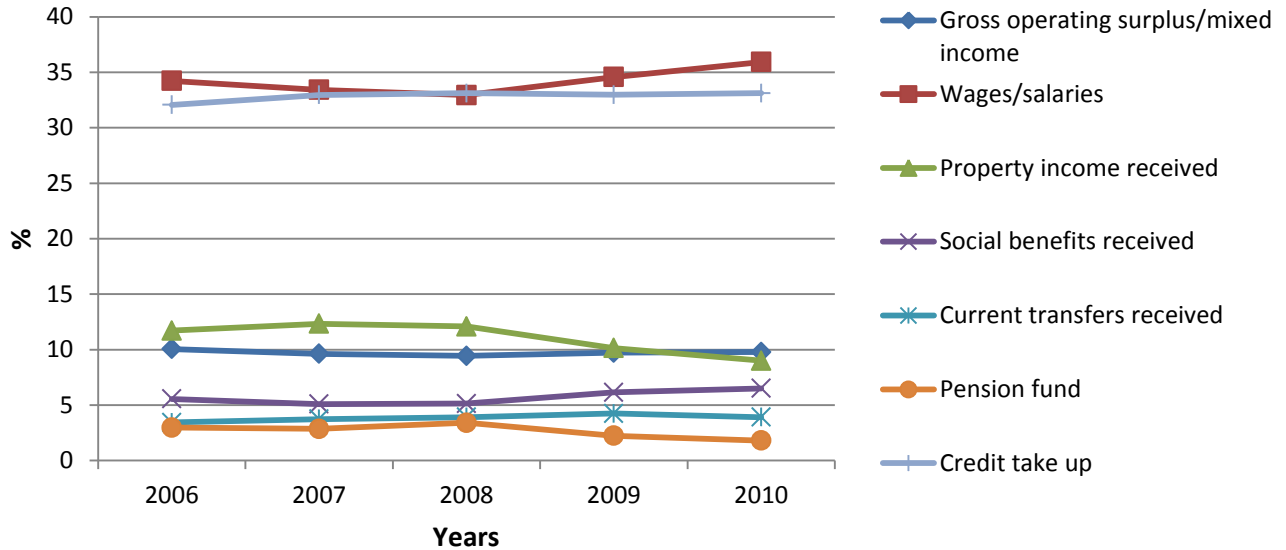
2.2.3 Funds available to consumers

Available funds comprise various sources of income and credit take-up, including gross operating surplus/mixed income accruing to households, wages and salaries, property income received, social benefits received, current transfers received, pension fund and loans. Credit take-up comprises different types of loan such as personal loans, bank overdrafts, and loans against policies that consumers use to supplement their income as part of the available funds.

The contribution of pension funds, current transfers and social benefits received to the total funds available to consumers was relatively low, and also showed a declining trend from 2008 to 2010. This was contrary to wages/salaries and cash credit take-up, which constituted a significant proportion of the funds available to consumers. Higher reliance of consumers on wages/salaries is shown by an inclining trend, especially from 2008 onwards. Despite the constant trend of the credit take-up from 2007 to 2010 it is

alarming that this take-up constituted almost a third of the funds available to consumers in 2010.

Figure 2.4
Funds available to consumers from 2006 to 2010

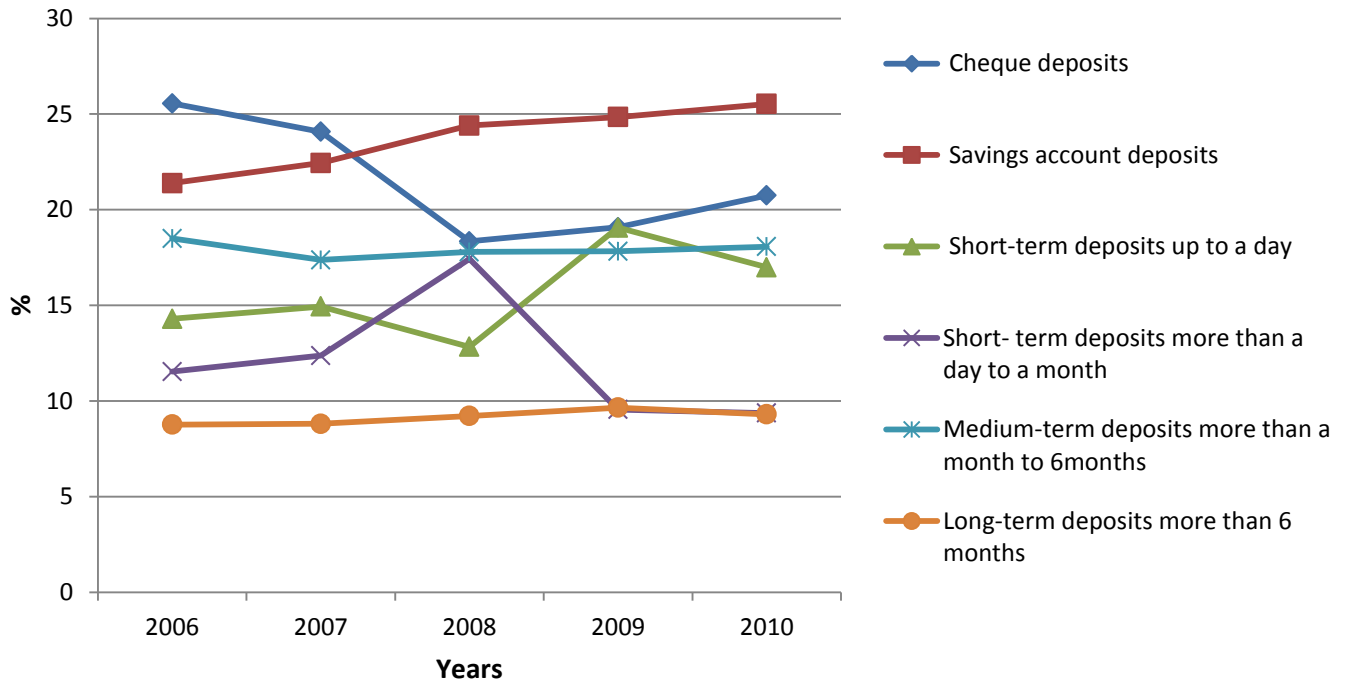


Source: SARB, 2011c

2.2.4 Consumers' deposits into savings tools from 2006 to 2010

Figure 2.6 shows that long-term deposits contributed less than 10% to the savings deposits, compared with other deposits such as cheque deposits and particularly savings-account deposits, which contributed more than a quarter from the end of 2008. There was a decline in short- and medium-term deposits - especially in monthly short-term deposits, which plummeted from 17.43% in 2008 to 9.37% in 2010, indicating that a relatively higher proportion of consumers make use of savings-account deposits, compared with other savings tools.

Figure 2.5
Amounts deposited by consumers from
December 2006 to December 2011



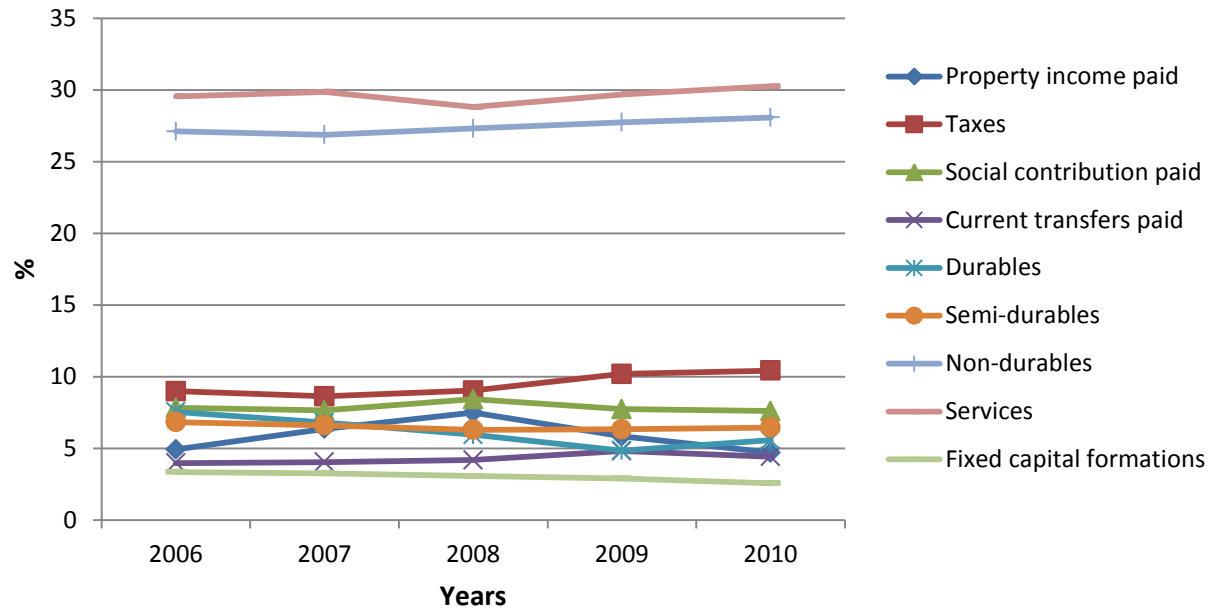
Source: SARB BA 900 forms 2006-2011

2.2.5 Consumer expenditure

The highest proportion of consumer spending on expenditure appeared to be mainly on nondurable goods and services, because in the period of five years nondurables constantly contributed more than a quarter and nondurables just below a third to consumer expenditure.

Despite a relatively lower consumer expenditure on other items such as fixed-capital formation, current transfers paid and durables, taxes paid showed a gradual increase, especially from 2008 onwards, until in 2010, and they accounted for just over 10% of consumer expenditure.

Figure 2.6
Consumer expenditure from 2006 to 2010

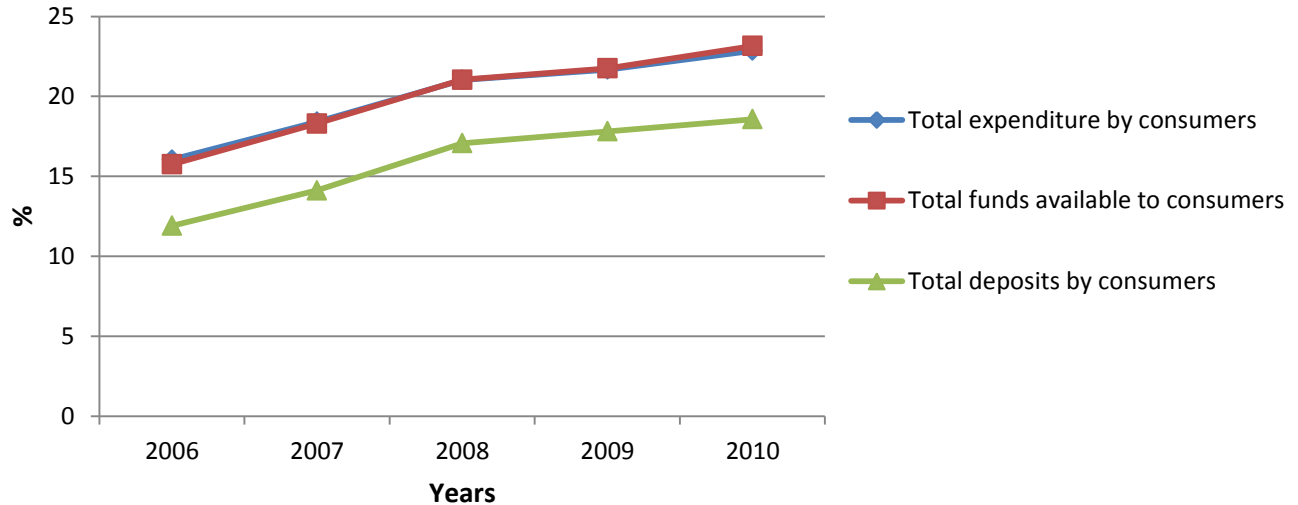


Source: SARB, 2011d

2.2.6 Total funds available, expenditure and deposits by consumers

Figure 2.7 shows that a constant upward trend in expenditure led to consumers using all their available funds, causing lower deposits into the savings tools. This scenario is portrayed by the cause- effect chain model in figure 2.3. Higher expenditure on services could also include debt-servicing costs resulting from a higher debt-instrument usage to finance spending on expenditure, as is evident from the higher credit take-up which forms part of the funds available to consumers. The lower debt-tool usage is evident from the dwindling short-, medium- and long-term deposits as depicted in figure 2.6. The cause-effect relationship suggests that there is a relationship between consumer debt-instrument take-up and consumer savings-tool usage. For the purposes of this study it is important to determine if such a relationship is statistically significant, and if it is, to what extent, and also which savings tools used by consumers have a statistically significant relationship with debt instruments used by them.

Figure 2.7
Total funds available, expenditure and deposits by consumers from 2006 to 2010



Source: SARB BA 900 forms 2006-2010

2.3 SAVINGS

For the purposes of this study the concept “savings” refers to the total amount of money locked into short-, medium- and long-term savings tools.

2.3.1 THE IMPORTANCE OF SAVINGS

In a country with high unemployment and slow economic growth such as South Africa, it is imperative to implement policies aimed at encouraging higher savings. This view emerges from the macroeconomic perspective in terms of the benefits that can be derived from higher investments and savings. Studies have shown that there is strong evidence of a positive relationship between savings and economic-growth rates (Schmidt-Hebbel & Servén, 2002). This evidence further suggests that countries, and here especially emerging economies such as China, that save more have a faster-growing economy than countries with relatively low savings.

It is therefore against this background that the significance and benefits of saving from a national-economic and a household and personal perspective can be viewed as follows:

- Saving provides a means for capital formation which in turn is essential for economic development to ensure faster growth, which in turn may raise wages and consumption, ultimately lowering interest rates and inflation (Kim 2010:35; Stokes, 2010a:45; Keeton, 2010:09; Cameron & Moodley-Isaacs, 2010:01).
- Local saving averts a country's dependence on foreign investment (SASI, 2010a).
- Saving habits dispel tendencies of living beyond one's means and inclinations of borrowing to fund household needs (*Saturday Star*, 2010b:06)
- Saving is a fundamental attribute of good financial behaviour which emanates from a proper financial-planning process to achieve personal financial success (Garman & Fogue, 2008:05).
- Saving allows for provision for the future and the achievement of financial goals (*Old Mutual Savings Monitor*, 2010e).
- Savings in the form of saved cash reserves serve as a nest-egg-like plan B when things go wrong (e.g. any kind of catastrophe) (*Old Mutual Savings Monitor*, 2010f). In other words, savings create a buffer against unforeseen expenses and cover future liabilities instead of having to resort to credit (Stokes, 2010b:47).
- Saved money can be readily accessible if urgently needed, and increases the owners' liquidity (Swart, 2002:131).

Faerber (2006:03) further outlines the following important aspects pertinent to saving:

- Apart from for funding emergencies, saving is essential for sustaining one's standard of living during retirement and increasing future wealth.
- The more one saves now, the greater is one's future purchasing power, owing to compound interest
- Studies show that people live longer and need more money to live on - therefore savings can be an important source of funding.

- Saving is also essential in view of rising medical and education and insurance costs.

The importance of savings from an individual consumer and household perspectives further shown in the results from modelling the economic implications of an increase in national savings by the Investment and Financial Services Association (2008) which indicates that an increase in the current level of national savings allows for a higher living standard during retirement where households can afford higher levels of consumption in the future.

2.3.2 UNDERLYING FACTORS CAUSING CONSUMERS NOT TO SAVE

Theories about consumer savings focus mainly on microeconomic, behavioural and psychological factors that influence individuals' ability to construct and execute saving plans or to achieve their savings goals.

Studies show that the following behavioural and psychological factors are the main drivers of the savings behaviour of most South African households and individuals:

- The tendency of households and individuals to allow their immediate wants or needs to take priority over provision for the future - including resigning from their jobs simply to get their hands on their retirement savings so that they can use them for other purposes. This was also confirmed by a study conducted by Alexander Forbes according to which between 10 and 30% of people do not preserve their retirement savings every time they switch jobs (*Business Report*, 2010; *Saturday Star*, 2010a:05). The *Old Mutual Saving Monitor* survey (2010f) further found that a number of consumers in their mid-30s place a high value on material things, leaving them no other alternative than to get into debt (Comins, 2009).
- A lack of understanding the financial advice and information given to households and individuals to avert bad saving trends contributes to poor savings behaviour (*Old Mutual Savings Monitor*, 2010d).

- Low-income earners are under pressure to balance their budgets as well as to save money (Kamhunga, 2010). This situation is made even more difficult by life becoming increasingly expensive, coupled with the scourge of high unemployment (Modimoeng, 2009).
- A high level of indebtedness among households, which leaves them with little or no discretionary income to save in pension or retirement schemes or to invest in the money market or equities (Kamhunga, 2010).
- A lack of awareness regarding the importance of adequate savings, unrealistic expectations and little education in financial planning.

The fact that lower savings are propelled mainly by behavioural factors shows how significant it is to encourage a behavioural and attitudinal change among consumers - for instance to address the tendencies of financing excessive spending through credit. This can be achieved by increasing awareness of the need for financial-management skills such as budgeting and other financial-planning mechanisms.

2.3.2.1 Other factors that contribute to lower savings

Tustin (2010:01) points out other leading factors that contribute to the household savings problem in South Africa, namely:

- global inflation (resulting in rising interest rates and consumer prices from mid-2006 to mid-2008)
- the local and global recession
- the low income of a large portion of households
- job losses
- high levels of debt
- more easily available credit
- a growing culture among the younger generation (even the middle class) to spend more and save less

Therefore, it should be acknowledged that some factors leading to lower or no saving are beyond consumers' span of control.

From the literature it is clear that debt is among the main underlying factors that adversely affect disposable income, thus making it difficult to save. Kotzé (2006:22) further ascribes the scourge of low savings to the deregulation of the financial sector in South Africa, which played a major part in diminishing household savings, stemming from instant higher levels of consumer debt. This was due to the easy accessibility of numerous credit instruments (such as credit cards, personal loans, overdraft facilities, and store credit cards) offered by financial institutions and other business organisations which had less stringent measures in place to screen consumers' eligibility to afford such credit. This situation was more prevalent prior to the implementation of the National Credit Act 34 of 2005, which requires financial institutions and other business organisations to apply stringent credit checks before granting financial and credit instruments to consumers.

Findings of the *Old Mutual Savings Monitor* survey (*Old Mutual Savings Monitor*, 2010a) also show that the major impediment to saving among South Africans is excessive mid- to long-term debts, including mortgage and car payments. This implies that consumers should avoid committing themselves to these types of debt if they do not have sufficient funds to finance them.

Behavioural and psychological factors that are perceived to be more prevalent among South Africans are evident in the way people often allow their immediate wants or needs to take priority over provision for the future (*Business Report*, 2010). This is also exhibited by people cashing in their retirement policies to fund lavish lifestyles, including luxuries such as home improvements, a new car and holidays. This behaviour is further articulated by SASI (2010a, which states that saving is all about discipline and people spending less than they earn, emphasising the need to educate people to adjust their lifestyles and the manner in which they live to enable them to redirect their income into savings schemes.

2.3.3 DEMOGRAPHIC INFLUENCE ON SAVINGS

A number of empirical studies reported that there is a relationship between demographic factors and savings (Hyun Cho, 2009). Consumers' demographic attributes may contribute to their savings behaviour and differential financial strategies. Among other factors, consumers' level of income, age, marital status, level of education and employment status were found to be indicative of their saving trends.

Kotzé (2006:28) alludes to similar demographic factors that can also be related to the consumption, debt and particularly savings tendencies of individuals. The propensity to save comes from certain personal values that the individual considers more important than spending. Some major demographic factors that were found to influence consumer savings are as follows:

- **Age** - Studies show that in general people of different ages may have different attitudes toward risk and borrowing which subsequently affect their saving rate. Kotzé (2006) maintains that saving becomes more prevalent with age, in view of the fact that people start to realise that they are close to retirement.
- **Values** – According to Kotzé (2006:31), moral norms are key issues as far as saving and overspending are concerned. The author mentions the following three aspects related to moral norms,: the extent to which the individual believes it to be immoral to be in debt, the importance of saving as the right thing to do and not to depend on the government or one's children, and to help one's children have a "good start in life".
- **Personality** – Findings of Nyhus and Webley (2001, cited in Kotzé, 2006:32) show that individuals who are considered to be conscientious with self-discipline, who plan and have the ability to delay gratification, have a higher propensity for discretionary savings because they keep track of their personal finances. This view is also shared by Gorniak (1999, cited in Kotzé, 2006), who maintains that

people who have the inclination to save have a positive attitude towards savings and thus tend to save more than people without the same internalisation of norms with regard to savings.

- **Income** – Income is regarded as the main driving force behind saving. A study carried out by Nguabanchong (2004:78) shows that household savings are positively affected by an increase in income of both or either one of the spouses.
- **Education** – According to Hyun Cho (2009:14) a number of studies point towards a positive relationship between education and savings, which was further confirmed by a comparison of the savings rate of different educational groups where it was found that the propensity to save, both on an average and on a marginal scale, rises with the number of years of education. The effect of education is further illustrated by Nguabanchong (2004:80), who affirms that the level of saving is likely to be influenced by individuals' level of education, whereby schooling is positively related to saving because of the increased knowledge a higher level of education brings.
- **Gender** - In a study by Hassan Al-Tamimi and Bin Kalli (2009:500) the issue of gender was found to be significant in the different levels of financial literacy as far as gender was concerned, where women were recorded as having a lower level of financial literacy than men. This view was also espoused by Lusardi and Mitchell (2007, cited in Fisher, 2010), who affirmed that women are generally less financially knowledgeable than men, as may be seen in the choice of both savings and portfolio. It is, however, important to remember in this regard that the fact that males are in general more highly educated than females because of cultural factors, may explain this phenomenon.

A Survey on Consumer Finances (2007, cited in Fisher, 2010:13) among single-person households found the following factors in relation to gender that were also deemed pivotal in influencing saving behaviour:

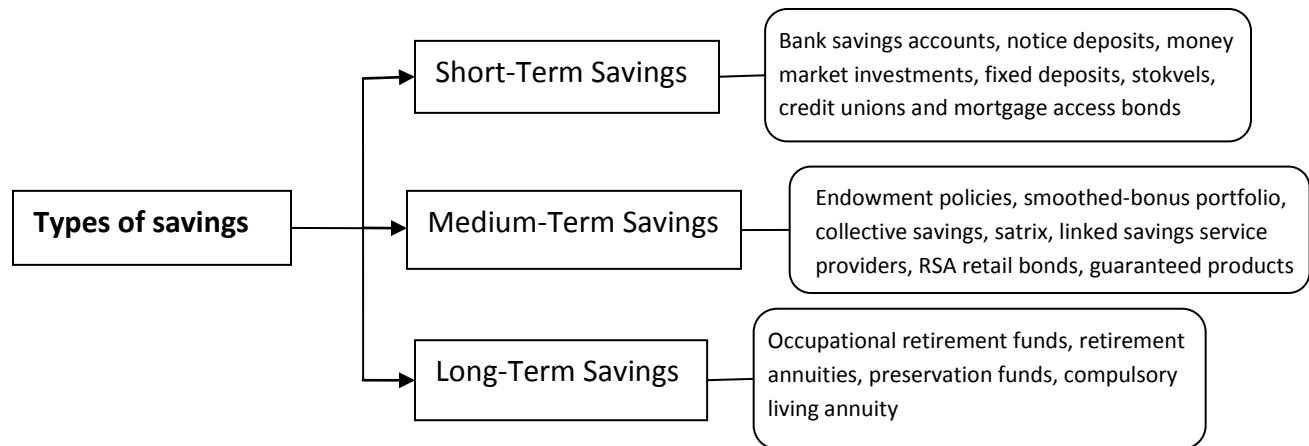
- Women appeared to be less likely to save than men, and had a lower risk tolerance coupled with shorter savings horizons.
- Poor health also made women less likely to engage in short-term saving than men.
- Education was found to more likely influence men to engage in short-term saving and to save regularly than women.
- Ironically, income was found to be not significant in explaining the likelihood of short-term saving or the likelihood of saving regularly.

It was also found in other studies carried out by Sung (1997), Pearce (1989), and Embrey and Fox (1997) (all cited in Fisher, 2010:14) that women have a lower rate of participation in retirement plans than men and are more likely to be living in poverty during retirement. Thus, the combination of lower earnings, lower savings, a longer life span, and a higher risk aversion when investing, presents women, financial educators, and policymakers with a significant challenge to encourage higher savings.

2.3.4 TYPES OF SAVING

As mentioned in the previous sections, for the purposes of this study the concept “savings” refers to the total amount of money locked into short-, medium- and long-term savings instruments. The key to savings is the time span, which is determined mainly by the goals intended to be attained through the savings. The types of saving can therefore be differentiated according to their time span, as depicted in figure 2.8

Figure 2.8
Types of saving according to their time span



Source: SASI, 2010a

2.3.4.1 Short-term savings

Short-term savings may for instance be intended for the payment of school fees and for emergencies. These are types of saving tantamount to discretionary savings where cash is easily accessible and not tied up for a longer period – that is normally for no longer than a month. Savings instruments appropriate for such savings include the following:

- **Bank or post-office savings accounts**, which are relatively easy to open and where cash can be easily and instantly accessed at any time. However, these accounts have a relatively lower interest rate bearing, thus seldom outpace inflation (*Old Mutual Savings Monitor*, 2010a).
- **Notice deposit accounts**, often referred to as 32-day-notice deposits, offer a relatively higher interest than savings accounts. The money is normally saved for an indefinite period, and becomes available after a pre-specified notice period of

32 days has been served (SASI, 2010b; Rabenowitz et al., 2010:565; *Saturday Star*, 2010b:06).

- **Money-market deposits**, where certain stipulations are made in terms of the minimum cash amount required for initial investment. A relatively higher interest rate can be earned, especially for short-term savings in a money-market unit trust, which requires a much higher minimum investment. The money can be accessed within a period of 24 hours and there are no initial charges particularly for the money-market unit trusts.
- **Mortgage access bonds** constitute a short-term savings transaction requiring one to have an access facility on a mortgage bond where savings can be paid into the bond until the time when money is needed. This savings facility has the benefit of reducing the interest payment on the bond and also the advantage of receiving the best deal on a cash investment which may be equivalent to the prevailing prime lending interest rate (*Saturday Star*, 2010b:06).
- **Fixed deposits** constitute a type of savings account where the money is tied up for a specific pre-specified term ranging from one month to five years. The interest rates offered on these accounts are also higher, depending on the duration of the savings. However, the interest rates are usually fixed at a predetermined rate for the full term.
- **Stokvels** are savings schemes formed by a group of people who each deposit a regular amount into the scheme every month. Each member then has a chance to get the month's collected cash. Stokvels are popular among black households across all income groups (Comins, 2009:03), as was evident from the *Old Mutual Savings Monitor* (2010b), which reported a relatively higher savings index of individuals and households who prefer cash savings in stokvels to other savings vehicles available. According to SASI (2010a), although stokvels constitute such a popular saving scheme, minimum investments into them are very low, being at the discretion of the people forming the stokvel.

- **Credit unions**, are governed by the Savings and Credit Cooperative League of South Africa (SACCOL), which is affiliated to the African Confederation (ACCOSCA) and the world body, namely the World Council of Credit Unions (WOCCU). Credit unions emanate from a certain common bond of members who get together to start a savings and loan scheme.

2.3.4.2 Medium-term savings

Medium-term savings are also geared to consumers with certain types of savings goals and usually entail investments in properties such as a house and durable goods such as motor vehicles. Savings instruments that yield higher returns with anticipated capital growth are normally considered for medium-term savings and work on a contractual basis, coupled with a higher risk factor. The savings are also tied up and inaccessible for a longer period. Savings vehicles deemed best and appropriate for medium-term savings are often referred to as pooled investments and include the following:

- **Endowment policies**, which are governed by the Long-term Insurance Act 52 of 1998 and are taken out from life-assurance companies only. They are available for recurring-premium- as well as lump-sum-premium investments, usually with a minimum term of five years. Endowment policies are invested in a range of underlying investments with varying levels of risk and investment. These underlying investments range from balanced portfolios (where the life-insurance company decides on the investment to be made in all the assets classes) to policies where the investor can select a specific unit trust. It is also important to note that endowments are relatively inflexible, costly and not subject to interest and capital-gain-tax exemptions. According to SASI (2010b), the types of underlying portfolio for endowment investments are as follows:
 - **Smoothed-bonus portfolios**, which guarantee the investor the absolute minimum of the original capital plus an annual growth of 4.25% in nominal

- terms and also make provision for growth in the form of bonuses declared annually by the assurance company.
- **Market portfolios**, which offer no guarantees and include all kinds of options ranging from pure-equity portfolios to conservative portfolios.
 - **Specialist portfolios**, which include property and small-company portfolios.
 - **Offshore portfolios**, which involve investing money in foreign markets (assets); these portfolios are converted to rand value at maturity.
 - **Guaranteed endowments**, where a quote is obtainable at the time of investing and a maturity amount is guaranteed at the end of the period.
 - **Matured endowments**, also referred to as second-hand policies, are portfolios that have already run for five years. The holder is entitled to withdraw capital from the policy as and when needed to cover living expenses.
- **Collective-investment schemes**, which are more flexible than endowment policies in that the savings can be accessed at any time. These schemes offer lower-risk investments which include asset-allocation and absolute-return funds, where the different asset classes of cash, bonds and shares are combined. Collective-investment schemes invest in shares listed on the stock market that are subject to short-term vitality risk and comprise the following:
 - **Unit-trust funds**, which are governed by the Collective Investment Schemes Control Act 45 of 2002 and are also referred to as mutual funds. They are open investment funds, meaning that more units are created every time people invest money in a unit trust. Therefore, the value of the unit trust is determined by the underlying value of all the assets of the particular fund, divided by the number of unit-trust holders. Unit trusts do not offer any level of guarantee and are subject to various levels of vitality risk - for example, money-market unit trusts show very little vitality, whereas specialised equity funds have a high degree of vitality. However, unit trusts investing in stock-exchange-listed securities, either locally or abroad, are registered as

collective-investment schemes that provide greater security and tax benefits. There is a wide variety of unit trusts, which are broadly categorised according to their investment mandate. The high level of flexibility of unit trusts allows the investor a choice from a large number of funds in order to put in place a portfolio that is most suitable to his or her needs, which can range from pure equity, bonds, cash and property funds to various combinations of the asset classes. Unit trusts are managed by a fund or assets manager and are purchased from the management company. There are alternative routes available to acquiring unit trusts than purchasing directly from management companies, and that can include linked-product industry, funds of funds, multimanager funds, and wrap funds (Swart, 2002:387-389; SASI, 2010b).

- **Exchange-traded funds** are similar to unit trusts, with the only difference that exchange-traded funds are listed securities (shares) on a stock exchange which can also invest in commodities such as gold.
- **Satrix** is an investment vehicle that offers a range of exchange-traded funds, which is an efficient way of gaining equity-market exposure at a low cost. It has the benefit of a guaranteed return equal to the average performance of the market less costs. However, this is a pure-equity investment and does not offer diversification into other asset classes such as bonds, cash or property unlike in the case of collective investments with a relatively higher level of flexibility.
- **Savings trusts** differ from unit trusts in that they are closed-ended unit trusts with a finite number of units and cannot be created or cancelled. The most common form of investment trust does not have the structure of a trust, but that of a company, where the shares or units are traded on the stock exchange. Therefore, the price of the units depends on what the buyers and sellers believe that the units are worth in relation to the trust's assets and earning potential. The entry costs of investment trusts are higher than those of unit trusts, since

investment trusts are traded on a stock exchange and the investor is compelled to work through a stockbroker.

- **Linked-savings service providers** constitute a savings strategy that enables the investor to invest in a broad range of investments, from the collective-investment schemes of different companies to listed shares. This provides the benefit of switching between the collective-investment schemes of different companies at a lower fee.

- **RSA retail bonds** are savings provided by the government and help the state to finance expenditure. These bonds are an easily accessible way of investing in bonds and are available in a variety of different terms, with longer-term investments yielding a higher interest rate. There are two types of RSA retail bond, namely:
 - **Fixed-rate bonds** with a maturity period of two to three or five years and a fixed interest rate for the investment period.
 - **Inflation-linked bonds** with a three-, five- or ten-year maturity period that pay a floating rate of interest set above the inflation rate as measured by the consumer price index.

Government bonds are associated with a number of limitations which the following: there is no real growth in the capital amount invested, investors are “locked in” and cannot withdraw their capital without a penalty, only a lump sum can be invested and so there can be no regular debit- order payments, and the bonds are not tradable or transferable (Dlamini, 2010:15).

- **Guaranteed products** are savings instruments recently introduced in the South African investment arena and have the following attributes: they are five-year investment policies, the investment performance is based on a local or international stock-market index, the investment performance can be geared

(e.g. one can get 1.5 times the underlying index performance) or capped (e.g. even if the underlying index achieves 30% growth in a year, the investors' share is limited to 25%), the original capital invested is guaranteed, in certain circumstances additional lock-in guarantees are offered whereby the growth portion is guaranteed once it reaches a certain level, and they are sold in tranches (batches) which are available only until the particular batch is sold out or until a certain date has been reached (SASI, 2010b).

- **Direct JSE savings** - more than half of South Africa's total savings are invested in the Johannesburg Stock Exchange (JSE). There are various direct and indirect ways in which an investor can invest in the JSE. Indirect share investments may for instance relate to the ownership of shares in the JSE in the form of ownership of an insurance policy or units in a unit-trust fund whereby most insurance companies invest a large proportion of their policy-holders' money in shares in the JSE.

An investor may alternatively invest in a direct share portfolio through a stockbroker, or visit a bank and invest through an investment consultant. Where the investor invests in a managed portfolio through a stockbroker, a bank, a trust company or a portfolio manager an agreed fee for the management of the portfolio will be paid and a portfolio-management contract will be signed. Investors also have the choice of an "internet portfolio" by opening an account with a stockbroker via the internet or through the websites of some of the banks (SASI, 2010b; Rabenowitz et al., 2010).

- **Offshore savings** emanate from what research has shown to be a good investment practice – namely not to tie up all one's wealth, including property, in one currency, one stock exchange and one economy. Some of the major reasons for investing offshore are as follows: protection against a weak and falling currency and an opportunity to diversify an investment portfolio (Rabenowitz et al., 2010:681). South Africa's stringent exchange controls do not provide an incentive to invest offshore, where at present every South African is

allowed to invest only R750 000, involving cumbersome paper work to get the necessary clearance from the South African Receiver of Revenue (SARS). Nevertheless there is an array of offshore-investment opportunities where a number of investment vehicles can be used, including the following: offshore bank accounts, offshore equities, offshore unit trusts, foreign endowments, foreign guaranteed products, and foreign property (SASI, 2010b).

2.3.4.3 Long-term savings

Long-term savings are similarly aimed at goals that one wishes to attain, but unlike short- and medium-term savings are often associated with retirement goals. Lower-risk investments with a tax advantage are considered more appropriate for long-term retirement savings, which include the following:

- **Occupational retirement funds**, which are a type of long-term investment vehicle offered by employers, industrial organisations and trade unions and are regulated by the Financial Services Board and pension funds. Retirement funds are tax-effective investments, but any withdrawal in the form of cash from an occupational retirement fund before one reaches a retirement age as set by the rules of the fund will be subjected to tax. There are four main options available for retirement investment, namely:
 - **Pension funds**, to which members contribute during employment and from which they receive a pension on retirement. A contribution of up to 7.5% of the pensionable income (i.e. basic pay/salary without allowances) is tax-deductable, and all the investment returns are tax-free. Up to a maximum of one third of the investor's benefits may be withdrawn as a lump sum at a retirement age normally set between 60 and 65. The remaining amount is used to purchase an annuity (pension).

- **Provident-funds** - contributions to these funds are made from after-tax money during the period of employment, and therefore are not tax-deductable. Upon retirement, the investor receives all the savings from the fund with the contributions added to the tax-free portion of the lump-sum tax rates. The member is not obliged to receive the full benefit as a lump sum, but is entitled to utilise a portion of it to purchase a pension (SASI, 2010b). Only contributions made by the employer and the investment growth are taxed at favourable rates.

- **Retirement annuities (RAs)** are funds tailored for people whose companies do not offer occupational-retirement funds or by members of occupational-retirement funds who wish to supplement their retirement savings: RAs are thus deemed to be private pension funds. Similarly to pension funds, only up to one third of the benefits can be taken out as cash, and the residual should be used to buy an annuity. RAs provide the option of investing in the following:
 - **Life assurance** is done on a contractual basis, subject to penalties in cases of a reduction in payments. It is a contract between an insurance-policy holder and an insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") upon the death of the insured person.

 - **Unit-trust-based products** are more flexible in that investors have a discretion to increase or decrease their contributions without limitations or penalties levied on the savings. Similarly as with pension funds, up to one third of the Retirement annuities benefits can be taken out as cash after the age of 55 and the residual should be used to buy an annuity.

- **Preservation funds** are geared mainly to savings of occupational-retirement-fund benefits in cases of resignation (changing jobs) and retrenchment. If individuals wish to preserve their benefit for retirement and yet choose neither to leave behind their savings with the former employer until retirement nor to

transfer their savings to the new employer, they have the option of transferring their savings to an RA or a preservation fund. There are two types of preservation fund available for protecting the tax benefit, namely: pension-preservation funds and provident-preservation funds tailored for savings transferred from the provident fund.

- **Compulsory/living annuities** constitute an investment option which is regulated by the Financial Services Board and Long Term Insurance Act 52 of 1998. These annuities can be accessed only on retirement from a retirement fund as a postretirement vehicle. Upon the retirement of the member, provision for a regular monthly or annual payment is made by the compulsory pension in the form of an annuity/pension. Compulsory annuities comprises the following:
 - **traditional annuities**, where the retirement fund or the insurer bears the investment risk by specifying a monthly payment to the member and guarantees this payment
 - **living annuities**, where the member carries the investment risk by placing the retirement benefit into an investment portfolio and nominates a monthly payment between the parameters of 5 and 20%

2.3.5 OTHER SAVING PRACTICES

The literature shows that there are other means of saving that can be extended beyond the use of conventional savings tools and that are perceived to be some of the best practices of saving behaviour (Tustin, 2010; SASI, 2010b; Swart, 2002).

- **hard assets**, that is assets that have the ability to maintain value and normally take the form of collectables on which investors place a high value, such as tank containers, coins, carpets and aeroplanes,
- **property**, entailing investment in the purchase or direct/indirect ownership of different types of fixed or non-fixed assets such as paying off a bond; buying a

home, residential, commercial or industrial property; property syndication, land and property trust,

- **owning a business** requires active involvement of the investor, which may entail. among other things, setting up the business from scratch, buying a franchise, buying an existing business, investing in partnerships, setting up side line businesses and expanding existing businesses,
- **living a cash lifestyle** and avoiding credit purchases (debt),
- **paying off a mortgage bond** as soon as possible by using all extra cash to facilitate this process,
- **using monthly debit orders** to avoid the temptation of spending money before paying off debt,
- **starting to save** at an early age,
- **starting by saving small amounts** and gradually building up the savings,
- **engaging in “forced” savings strategies** where a portion of the income is committed to saving on a regular basis,
- **bartering** (i.e. exchanging goods and services without the exchange of money) as an alternative form of saving is anticipated to increase in the future and was mentioned across different populations and income groups as an alternative form of saving in the future.

2.4 CONSUMER DEBT

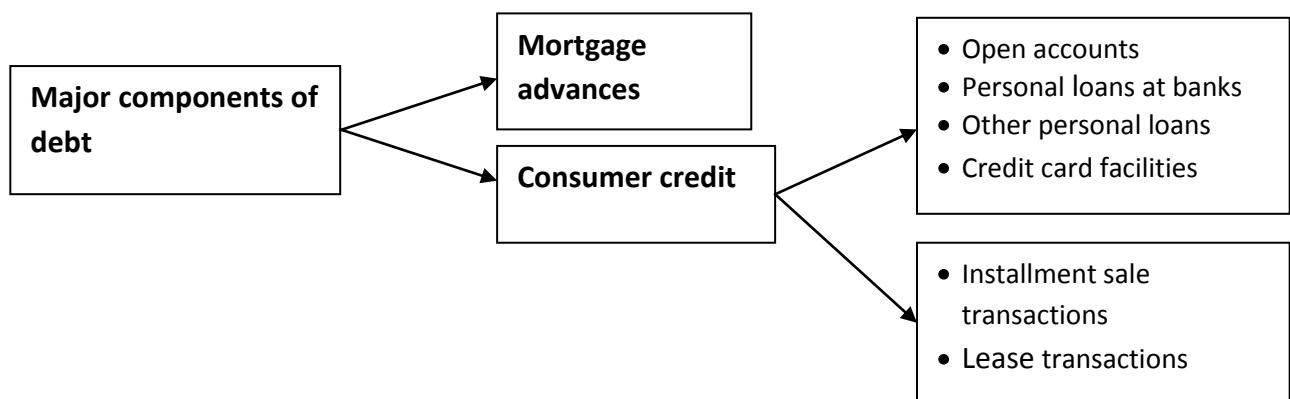
According to the literature, the practice of granting consumer debt has been widespread for many decades, dating back approximately 750 years, where the consumer-lending industry progressed through a number of stages, from pawnbrokers to usurers since the Middle Ages (Ahmed, Ismail, Sohail, Tabsh & Alias, 2010).

The concept “consumer debt” stems from the eagerness of consumers to sacrifice future consumption in order to obtain greater satisfaction from current consumption (Van der Walt & Prinsloo, 1995). This implies that the rationale for the decision to

borrow is driven by a preference for current consumption over future consumption (Schooley & Worden, 2010).

In its simplest terms, debt is a legal obligation to pay (Driver, 2010). Van der Walt and Prinsloo (1995) differentiate two major components of consumer debt, namely mortgage advances and consumer credit, as depicted in figure 2.4. Debt can also be categorised as long-term or short-term, liquid or illiquid, secured or unsecured (Driver, 2010).

Figure 2.9
Components of consumer debt



Source: Van der Walt & Prinsloo, 1995

Mortgage advances comprise loans taken out by households, such as home mortgages used for purchasing homes and other fixed property, where the property concerned is then offered as a security for the loan. According to the South African Reserve Bank (2010c), the largest component of household debt was represented by mortgage advances, which increased from 56.7% in 2005 to 63.5% in 2009. It is important to note that there was as an increasing trend in mortgage advances despite the fact that some houses were repossessed by the banks.

Consumer debt constitutes debt facilities for consumption expenditure which according to Kuhn (2010) accounted for 35% of aggregate consumers in 2009 and comprises the following:

- **Open accounts**, which include all outstanding debt to dealers and also those amounts payable to buy-aid associations, for purchasing goods and services from dealers and retail stores. The period of credit extension is relatively short and the outstanding balances are payable within one month of the date of the transaction (Van der Walt & Prinsloo, 1995).
- **Personal loans at banks**, which constitute secured and unsecured cash loans and other advances by the banks to their clients.
- **Overdraft facilities**, which are granted to holders of current accounts at banks, enabling clients to withdraw from such accounts above the amounts deposited into the accounts.
- **Other personal loans**, often referred to as “loans against policies”, which are granted to clients by long-term insurers where the surrender value of the policy serves as a security for the loan.
- **Credit cards** constitute a type of credit facility provided by the banks to their clients which offers a very convenient way of making a purchase and deferring payment of the purchase price.
- **Instalment-sale agreements**, also known as “hire-purchase agreements” entail payment for the provision of goods and services in instalments by the buyers over a period in the future where the buyer takes possession, but not ownership, of the goods until the payments are concluded after an agreed period.
- **Lease agreements** entail the lease of goods without any agreement for the transfer of ownership of the goods to the debtor at any time during or after expiry of the lease.
- **Retail-store accounts** constitute a form of credit-purchase agreement offered by retail stores to their customers, allowing the customers to purchase goods and services on credit according to the credit limit on their accounts and are payable within a specified period of time.

2.4.1 DEVELOPMENT OF CONSUMER DEBT

Household debt was initially propelled by the broadening of the lending activities of banks (i.e. by increasing the number and accessibility of debt instruments) to households, particularly during the 1980s, resulting from the deregulation of the financial markets. This provided a platform and enabling environment in the financial sector with regard to developments in the credit markets, aggressive credit marketing, easy access to various credit products and positive consumer attitudes towards credit-based consumption (Raijas et al., 2010; Kotzé, 2006).

According to Raijas et al. (2010), in recent years consumer spending in relation to income increased to such an extent that higher-than-income spending was generally funded with credit. This was shown by the consumer credit take-up, which constituted almost a third of the total funds available to consumers between 2006 and 2010 (SARB, 2011c).

2.4.1.1 Civil judgments recorded for consumer debt

Civil judgments instituted against indebted consumers provide an indication of the extent to which consumers fail to meet their debt obligations due mainly to higher-than-income spending financed by debt. The declining trend in civil judgments shows an improvement in consumers' ability to meet their debt obligations despite an increased consumer debt to disposable income ratio.

According to Statistics South Africa (Stats SA) (2011a), in the period from 2006 to 2011 there was a progressively downward trend in the number of civil judgments recorded against consumers - from more than 80 000 in 2006 to fewer than 40 000 towards the end of 2010. According to Stats SA (2011a), in January 2011 42 018 civil judgments for debt amounting to R423,1 million were recorded, largely with regard to the following: money lent (R146,5 million or 34,6%), services (R99,1 million or 23,4%) and goods sold (R62,5 million or 14,8%).

It is important to take into consideration that the declining trend in civil judgments on debt does not necessarily reflect diminishing debt levels among households and consumers. This phenomenon may be ascribed to a number of factors, perhaps including debt-management interventions such as debt counselling to avert civil judgments, improved household income and lower interest rates. For instance, according to the National Credit Regulator (NCR) (2010, cited in Moodley-Isaacs, 2010a) and Hirsch (2011) in 2010 there were 18 million credit-active consumers, 45.3% of whom were struggling to meet their debt obligations and 160 000 of whom applied for debt counselling.

These consumers sought assistance in managing their debt problems to avoid losing their possessions as a result of civil judgments (*The Herald*, 2009). The fact that households are still experiencing financial stress in terms of a debt burden is shown by the decline in the percentage of credit-active consumers in good standing 10.4% in the third quarter of 2008 to 9.9% in the third quarter of 2009. This was coupled with an increase from 7.1% of consumers with impaired credit records in the third quarter of 2008 to 8.1% in the third quarter of 2009 (SARB, 2010a; 2010b).

2.4.2 IMPORTANCE OF DEBT

Raijas et al. (2010) point out that the social environment usually compel consumers to acquire commodities in the absence of cash and that governments encourage citizens to consume due to the positive effects of consumption on the GDP. This brings to the fore the significant role of debt from a household perspective: debt can namely be described as a form of credit that may help to bridge gaps between income flows and demand for consumer goods where payment burdens can be eased and extended when purchasing expensive consumer goods which could be used for several years (Van der Walt & Prinsloo, 1995). This means that the consumer can benefit from using credit by making a purchase without necessarily having to save the required amount – therefore, credit enables consumers to improve their standard of living immediately (Swart, 2003).

Another important aspect of consumer debt as far as the personal-financial-planning process is concerned is the impact it can have on attaining financial goals and on cash budgets. For instance, credit can be used to help reach financial objectives such as acquiring certain items (e.g. a mortgage bond) in a systematic way without upsetting the whole budget (Joehnk et al., 2011).

2.4.2.1 **Good and bad debt**

Studies have shown that consumer debt can be divided into two categories, namely> unhealthy (bad) debt and healthy (good) debt (Knight & Knight, 2000; Swart, 2003).

Whether a debt is good or bad is normally determined by factors such as the cost of debt, which includes the level of interest rates and administrative costs. The rationale for incurring debt and the type of item financed by the credit facility plays a major role in determining whether such debt is “good” or “bad”. The motive for incurring debt is determined by a number of factors which may be socially and psychographically driven, or based purely on an informed decision derived from good financial planning.

- **Good debt** is a debt such as a home mortgage bond and property which are normally financed with the lowest interest rates, are tax deductible and appreciate in value over time (Knight & Knight, 2000; SASI, 2010a; Driver, 2010; Garman & Fogue, 2008). Circumstances that may be deemed justifiable for incurring debt may include the following: when buying a real bargain which would most likely cost double the amount in the near future, where the price of an item (such as durable goods) keeps on rising every month and it is impossible to save for it, when the replacement costs of an asset are lower than the repair costs, and when financing an income-generating asset such as fixed property (Swart, 2003:30; 2002:325).

- **Bad debt** relates to overdraft and credit-card debt where bank charges could be relatively high. Bad debt is also associated with paying for something that depreciates in value (such as a motor vehicle) (Hirsch, 2010).

Swart (2003, 2002) highlights the following as bad reasons for incurring debt: wishing to impress friends, competing with friends, buying something because everybody else has it, buying unnecessary gifts for friends and colleagues, having been convinced by a clever salesperson to buy something, inability to control spending habits, buying something that is beyond one's means, needing money to maintain too high a standard of living and a penchant for fashion, investing in get-rich-quick schemes; to boost one's self-esteem, and to feel successful and to portray a picture of success in life.

2.4.2.2 Other factors that contribute to debt

According to the National Credit Regulator (2010) the following circumstances also lead to consumer and household indebtedness:

- reckless lending by credit providers – a practice prohibited by the National Credit Act 34 of 2005
- changing financial circumstances such as unemployment, divorce or a breadwinner's death
- access to sophisticated financial products such as credit cards by consumers who are less knowledgeable about the cost implications
- living opulent lifestyles that consumers cannot afford - yet they believe that it is all right to borrow for luxury items or to cover living expenses and are much more likely to use credit and have a higher debt burden (Schooley & Worden, 2010)

Studies have shown that wrong reasons for incurring debt are mainly emotionally-based decisions often made in the absence of personal or household budgets due to a lack of financial-management skills.

2.4.3 DEMOGRAPHIC ATTRIBUTES OF DEBT

It is within the context of PFM that consumers' demographic attributes that play a role in the indebtedness of the household or individual should be clearly determined. This will provide an insight into the root causes of these attributes and into what mechanisms could be used to avert reoccurrences. Studies show that there are certain demographic factors (such as age, income, marital status, gender and education) that influence individuals' attitudes and behaviour as far as debt is concerned and also reflect the life stage of the household or individual.

Although debt affects all age groups and all income groups, a broader access to consumer credit is seen to be responsible for the overindebtedness of high-income and young consumers (Betti, Dourmashkin, Rossi & Pin Yin, 2007).

According to Raijas et al. (2010), the young are the most vulnerable to indebtedness due to a lack of experience and scanty resources, whereas older people and families with children have the most resources. Studies by Kojonen (2002), Lehtinen and Leskinen (2005) and Saarinen (2001) (all cited in Raijas et al., 2010) also show that young people's credit stems from uncontrolled usage of money and excessive consumption. This behaviour may be influenced by a number of factors such as wishing to impress friends, competing with friends, buying something because everybody else has it, and a penchant for fashion and status.

Notably, young females are also caught in the debt trap, which is attributed to a cultural change in society, where more women are entering the job market and are able to access credit from financial institutions and retail stores.

2.4.4 THEORY OF HOUSEHOLD INDEBTEDNESS AND FINANCIAL VULNERABILITY

Consumer financial vulnerability is defined as a personal feeling of being in a financially stressed situation. This is perceived as an early indicator of financial problems as far as

households or individuals are concerned. Consumers' state of financial vulnerability is caused mainly by macro- and micro-level factors such as unfavourable economic conditions, an unstable political situation - among other things resulting in a loss of income, an inability to service debt, and a decline in savings and household expenditure (ECRI & PFRC, 2008).

Van Aardt (2010:8) provides four dimensions which broadly defines the main drivers of the concept "consumer financial vulnerability" as follows:

- **income vulnerability**, which includes threatened job security, growth in income, social grants and the ability to access transfers from family and friends
- **savings vulnerability**, which is influenced by the savings and assets that a person can access when times are tough
- **expenditure vulnerability**, which depends on various factors, including whether a consumer is able to deal with the rising cost of food and transport or affords to live within his or her means
- **debt-servicing vulnerability**, which is indicative of the consumer's inability or difficulty to service higher debt costs or to cover all financial obligations

There are two debt theories that explain individual or household behaviour, namely the life-cycle hypothesis and the permanent-income hypothesis. These theories are based on the premise that households maximise utility by maintaining nearly the same level of consumption throughout their lives. This behaviour is referred as consumption smoothing.

According to these theories, there are two mechanisms involved in sustaining consumption-smoothing behaviour, namely saving and borrowing. This means that households borrow when their income is lower, and save when their income is higher. It is important to note that lower savings result not only from a lower income, but also, for instance, from consumers spending excessively on consumption expenditure that could exhaust their available funds and leave them with no funds for saving. Available funds may comprise credit take-up and income, so that consumers could also be burdened

with debt-servicing costs and may be compelled to use some of their savings to finance their debt (such as cashing in their policies and withdrawing from their short-term savings), leading to lower savings.

The behavioural life-cycle hypothesis further maintains that individuals tend to psychologically sort their assets into categories, such as belonging to current or future income or current or future wealth (Shefrin & Thaler, 1988). More specifically, the permanent-income hypothesis, which is related to the life-cycle theory, advocates that household financial situations are reflected in the household balance sheet - that is in the balance of income and expenditure. Proponents of this theory hold the view that individuals base their consumption on what they perceive as "permanent income" (i.e. the income that they expect to earn on average throughout their lives). The hypothesis holds that consumption expenditure is not determined by current income, but rather by the long-term income expectations (permanent income) of households.

Based on the aforementioned theoretical framework of household indebtedness, the main focus of the Genworth Index (2008) is on how households manage to balance their inflows and outflows of money by saving or by taking on credit. It is postulated that shocks such as sudden increases or decreases in cash inflows can provoke a sense of financial vulnerability, such that a household becomes uncertain about its capability to finance recurring expenditures.

It has been concluded that it is important for a household to find a financial equilibrium of income and expenditure flows in order to maintain financial stability, and that financial instability can occur when expenditures are larger than income and there are no savings available. The consumer or household would therefore under those circumstance face financial difficulties.

2.4.5 Socioeconomic impact of indebtedness

Kotzé (2006) points out that the scourge of overindebtedness is associated with the following predicaments:

- a broken home or divorce
- stress
- underperforming employees and a loss of productivity
- a decline in individuals' financial health
- bankruptcy and debt judgment (defaulting on loans), and
- negative economic consequences

2.4.6 Indicators of excessive debt

Curry (2007) and Knight and Knight (2000) postulate that the warning signs of debt overload are exhibited by the following types of conduct:

- using credit cards to pay other credit-card bills (i.e. borrowing from one source to pay another debt)
- skipping payments because one cannot afford them, or to make other payments
- constantly switching cards to get a lower interest rate on a new card
- reaching the maximum limits on credit cards
- being able to make only minimum payments on credit cards and other revolving debt
- arguing with one's partner about one's debt
- using one's credit card to make everyday purchases that are normally paid for in cash, such as groceries and fuel - reliance on a credit card for such purchases may be an indication that the income cash may be exhausted due to excessive debt
- having a vague idea or not knowing, how much debt one owes
- getting calls from creditors, and

- purchasing many items on extended-payment plans

2.4.7 **Benefits of reducing debt**

According to the Association for Savings and Investment South Africa (ASISA) (2010), reducing debt levels can have the following benefits:

- **a positive credit profile**, which is to one's advantage when borrowing money to buy a house or a car, including benefiting from favourable interest rates on the loan
- **financial security** - an inverse relationship between debt and savings implies that lower debt levels allow for increased savings, so that one has a buffer such as emergency funds against shocks such as accidents, illness, and retrenchment
- **reduced stress levels** that may result from the peace of mind of being financially secure and living within one's means (studies have found that people with high debt levels are susceptible to stress-induced ailments such as anxiety, indigestion, migraines and depression)

2.5 **TRENDS IN AND USAGE OF SAVINGS TOOLS AND DEBT INSTRUMENTS**

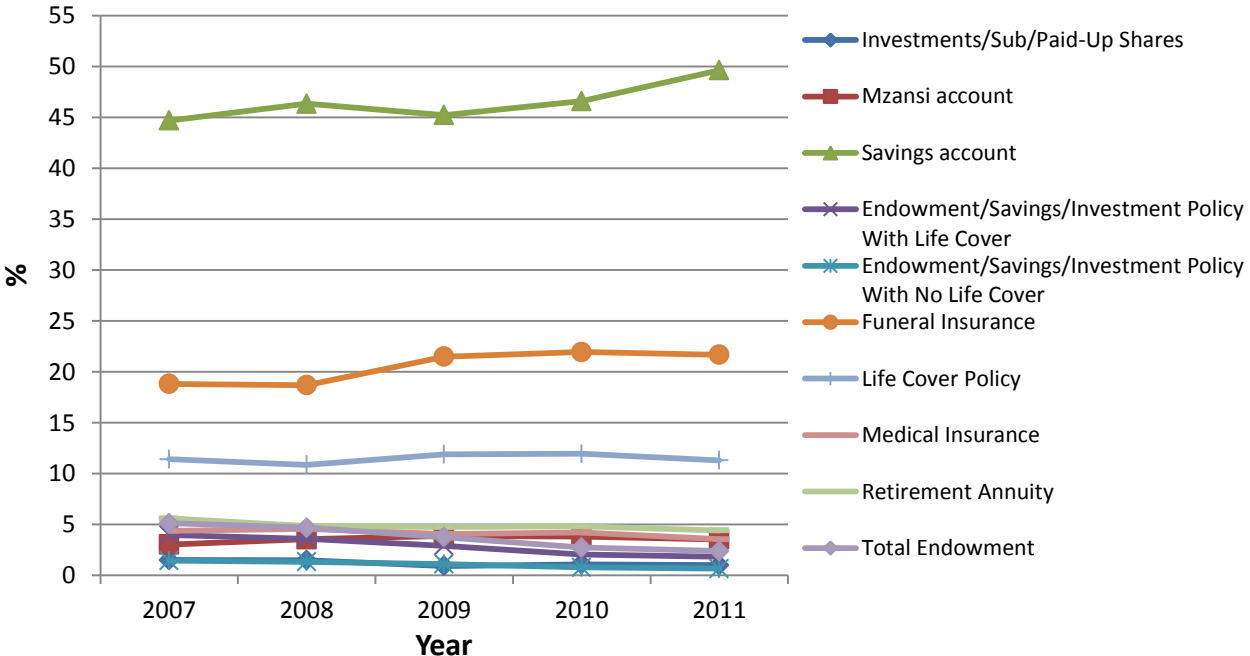
Over the past few years, South Africa experienced changes in the usage of savings tools and debt instruments by consumers. The literature pertinent to the usage of savings tools and debt instruments by consumers provides an insight into the prevalence and magnitude of consumer usage of certain savings tools and debt instruments over a certain period of time. The trends in the usage of savings tools also provide an indication of the types of savings tool that consumers could use to finance the debt-servicing costs, and also the types of savings tool that consumers could use to increase their savings levels. On the other hand, trends in the usage of debt instruments could be indicative of the debt instruments that consumers use to finance their consumption expenditure, and that could include debt instruments such as loans and

credit cards used to supplement consumers' income as part of available funds. For the purposes of this study, a five-year period is used to determine the trends in the usage of savings tools and debt instruments by consumers.

2.5.1 Trends in and usage of some major savings tools by consumers

The literature on the level of savings according to the type of savings tool shows that there is a considerable decline in long-term savings. It was also postulated by a True South Actuaries and Consultants study that South Africans do not have sufficient life assurance (Moodley-Isaacs, 2010). A decline in long-term savings by households was also evident, where only 12% of people born after 1980 were saving for retirement, with a percentage as low as 28% of these consumers doing so through pension funds (Stokes, 2010c). The varied levels of and trends in the usage of savings tools between 2007 and 2011 are depicted in figure 2.10.

Figure 2.10
Trends in and usage of some major savings tools by consumers between 2007 and 2011



Source SAARF, 2007, 2008, 2009, 2010, 2011.

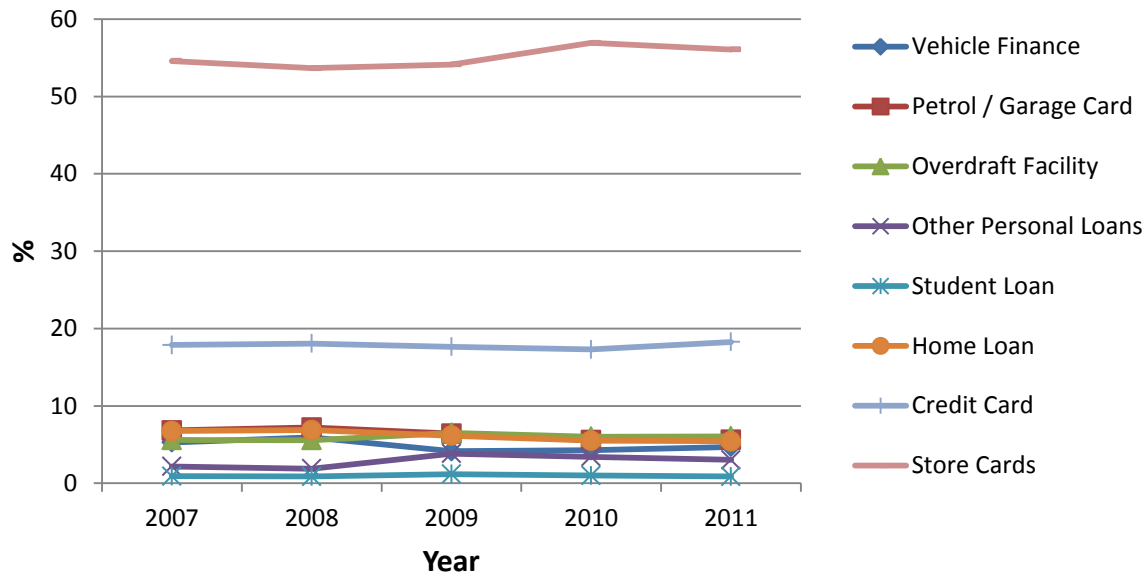
In the five-year period from 2007 to 2011, the declining trend in savings-tool usage appeared to be more prevalent in long-term savings tools such as retirement annuities and life-cover policies, as shown in figure 2.10. Other medium-term savings show a steep decline - especially endowment policies, savings and investment with no life cover. The annual FinScope survey that was conducted by TNS Research 2009 on financial-instrument usage by households also confirms that there is a downward trend in savings, as evidenced by the lower usage of some financial instruments by households (Cameron, 2009b). The findings of the FinScope survey further showed that 62% of people do not save and that of those who do save 10% have short-term savings such as informal products, including burial societies and stokvels (Cameron, 2009a). The matter of relatively declining long-term saving raises a concern regarding a number of consumers who may consequently be less financially secure, especially at retirement.

2.5.2 Trends in consumer debt-instrument usage

Store cards constitute a relatively large proportion of consumer debt-instrument usage, followed by credit-card usage - as shown in figure 2.11. Easy access to store and credit cards, as well as their uncontrolled usage in purchases and spending is one of the main drivers for their relatively higher usage than other debt instruments. The high usage of store and credit cards contribute to high debt-servicing costs. Therefore, consumers could be compelled to utilise a considerable proportion of their available funds and also their savings tools to finance higher debt costs, resulting in lower savings.

Figure 2.11

Trends in the usage of some major debt instruments by consumers between 2007 and 2011

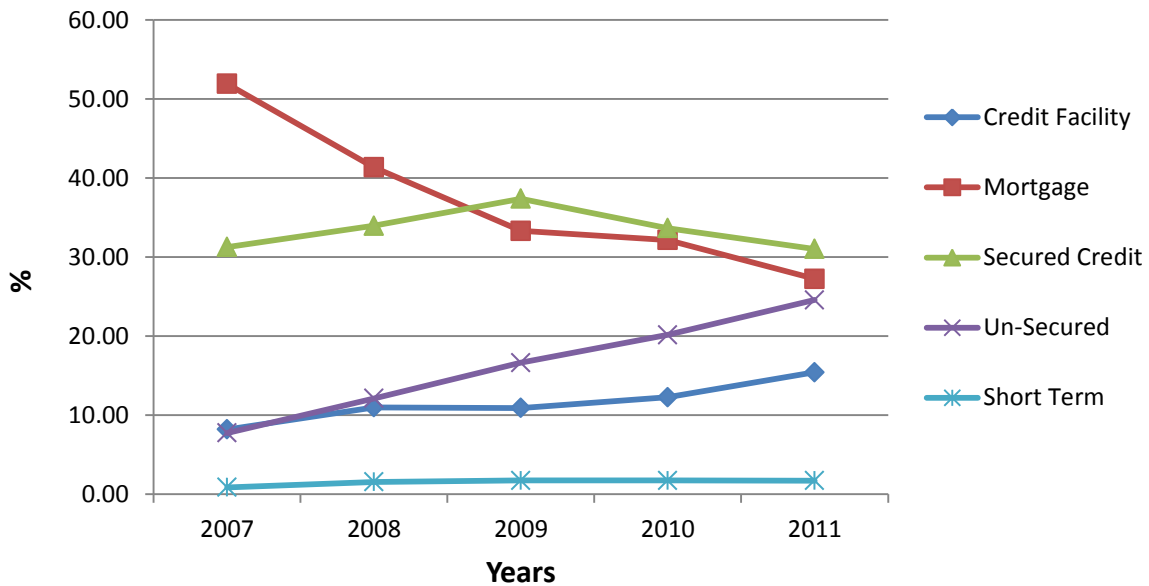


Source SAARF, 2007, 2008, 2009, 2010, 2011

Other short-term debt instruments used to a proportionally higher extent (yet to a far lower extent than store and credit cards) by consumers include overdraft facilities and petrol/garage cards, showing that consumers may also be using these debt instruments to finance their consumption expenditure.

It is also important to note that although a higher debt-instrument usage may lead to higher debt-servicing costs and consequently lower savings, the rand value of the type of debt instrument may also have an impact on savings. A consumer may for instance be using a debt instrument with a relatively high rand value such as a housing bond, motor-vehicle finance, a higher credit-card facility and a huge personal-loan account which may also have a negative impact on savings due to higher servicing costs.

Figure 2.12
Credit granted per credit type (rand value)



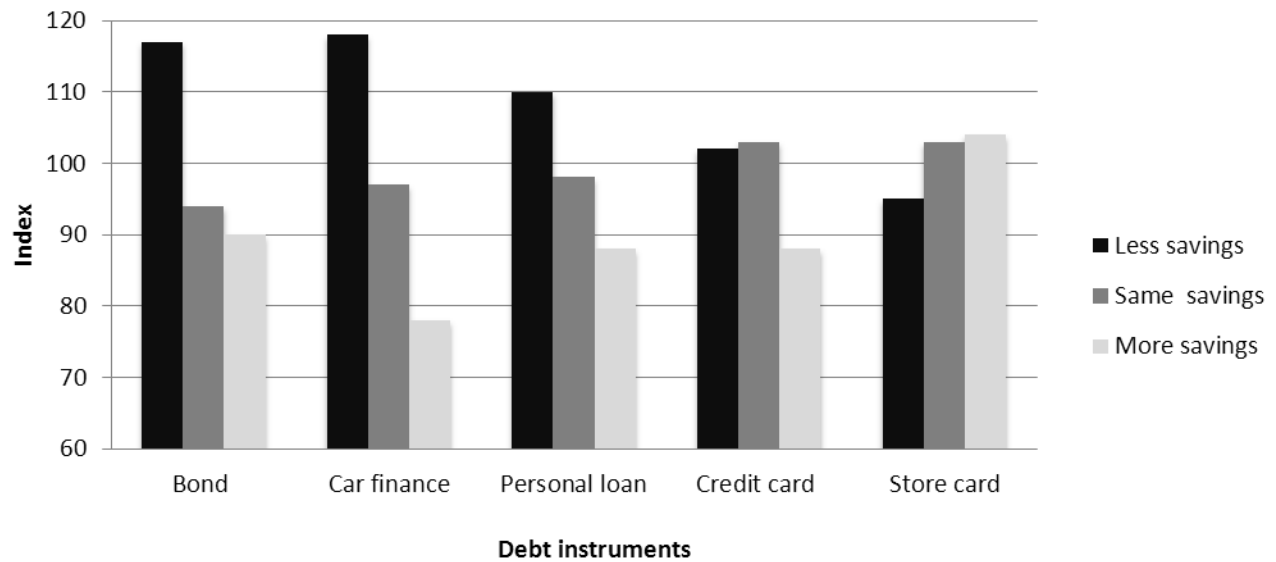
Source NCR, 2007-2011

Figure 2.12 shows that mortgage had a relatively higher rand value in 2007 and 2008, but decreased from 51.9% in 2007 to 27.2% in 2011. The rand value of secured credit showed an increasing trend, where it even surpassed mortgage in 2009. Unsecured credit and credit facilities, which may include credit cards, store cards and bank overdrafts, also showed an upward trend in terms of rand value, and this may also be linked to the higher usage of these debt instruments, as depicted in figure 2.11.

2.5.3 Debt instruments that impact on lower savings by consumers

Certain types of debt instrument have a more hindering effect on savings levels, and more especially on the savings levels of indebted consumers.

Figure 2.13
Types of debt instruments that have a major impact on consumers savings levels



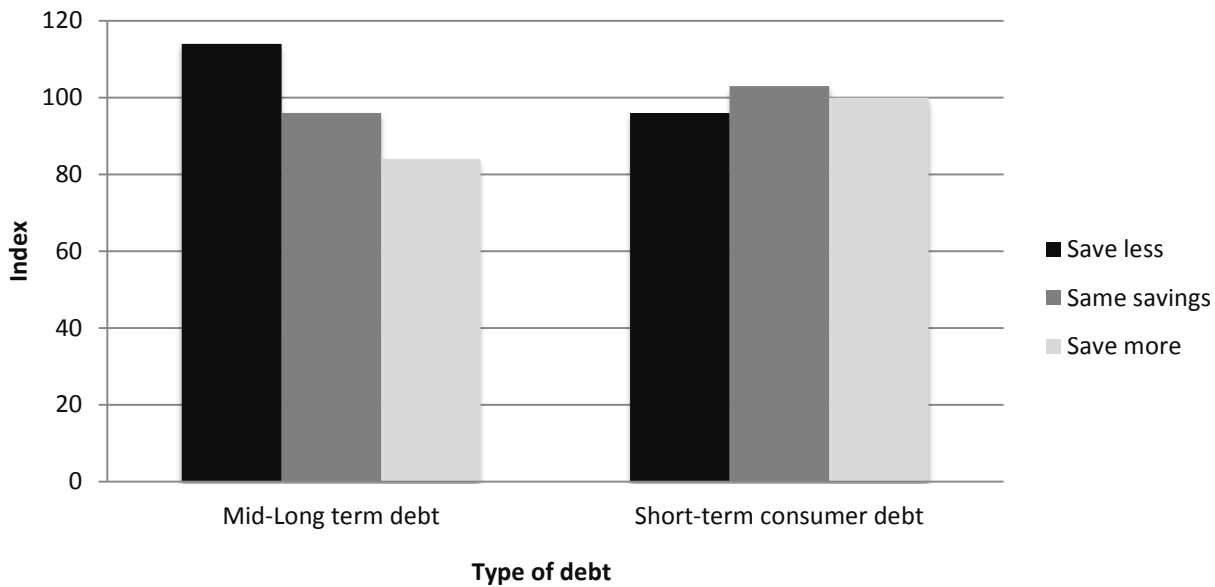
Source: *Old Mutual Savings Monitor, 2010g*

Figure 2.13 shows that car finance and house bonds, followed by personal loans, are the main debt instruments which largely impacts on lower savings levels by consumers. The relatively higher rand value of the mortgage and secured credit may provide an explanation why consumers may be using most of their available funds to service these types of debt and some of their savings tools to finance the debt costs, leading to lower savings.

2.5.4 Effect of debt on savings according to the type of debt

Debt, similarly to savings, is also distinguished according to time span, namely as long-, medium- and short-term debt. According to Van der Walt and Prinsloo (1995) debt can be clustered into two components, namely mortgage advances and loans (denoting mid- to long-term debts) and consumer credits (denoting short-term debt). These types of debt have a certain impact on consumer savings-tool usage.

Figure 2.14
The impact of the type of debt on consumer savings



Source: *Old Mutual Savings Monitor, 2010g*

Figure 2.13 shows that mid- to long-term debt, which includes debt such as home mortgage bonds, car finance and long-term loans, has a much greater negative influence on consumer savings levels than short-term debt. This finding coincides with figure 2.13, which shows that bonds, car finance and personal loans are the major contributors to lower consumer savings, which may be due to their relatively higher rand value, compared with short-term debt instruments.

2.6 NEED FOR AND IMPORTANCE OF FINANCIAL LITERACY

The majority of consumers and households lack the tools necessary to make good financial choices, due to a limited knowledge of the financial products (including debt instruments and savings tools) suitable for meeting their financial needs. There is a high likelihood that consumer-debt statistics and low savings could have been averted if debt-management education and guidance had been introduced to educate consumers about debt, credit and lending principles even before they apply for credit (Hirsch,

2011). This suggests that people who are educated about financial choices are more likely to improve their financial-management skills.

Swart (2005:48) points out that a lack of information about personal financial management (PFM) is a major cause for people experiencing financial difficulties all their lives because they are unable to make sound and informed decisions regarding their personal finances. This view is further espoused by Braunstein and Welch (2002), who maintain that financial-skill deficiencies can affect individual's or family's day-to-day money management and ability to save for long-term goals, resulting in behaviours that can make them vulnerable to severe financial crises.

Financial literacy is defined as the ability to evaluate and manage one's finances effectively in order to make prudent decisions about reaching life goals and knowing what is necessary to achieve financial goals (Anders & Crawford, 2005). O'Neill (2002) clearly shows that there is a nexus between financial literacy and financial planning when he defines financial planning as the process of achieving one's life goals through proper financial management. Financial literacy thus serves as a foundation for budgeting, saving and responsible usage of credit and allows people to act to achieve their personal and financial goals.

The literature on financial literacy shows that the conceptual definition of financial literacy is broadly clustered into five categories, namely knowledge of financial concepts (e.g. "financial statement" and "dividends"), ability to communicate about financial concepts (i.e. with financial institutions, family, friends, and financial advisors when discussing financial activities), aptitude in managing personal finances (i.e. ability to manage finances in a good manner), skill in making appropriate financial decisions, and confidence in planning effectively for future financial needs (Remund, 2010). The relevance of the conceptual definitions of financial literacy can be linked to the contention that the absence of basic financial knowledge and skills at a household level results in an inability to make prudent financial decisions (Sages & Grable, 2010:57), which may result in high indebtedness and lower savings.

The *Old Mutual Savings Monitor* study conducted in conjunction with Peppercorn Research (*Old Mutual Savings Monitor*, 2010a) showed that South Africans have a need to know about the importance of savings, and about savings tools and practices. This finding is in line with the global economic challenges in terms of which the need to build a financially literate society was seen as a priority. Financial knowledge enables consumers to plan and manage their money more effectively. This view is shared by John Manyike (*Old Mutual Savings Monitor*, 2010c), the head of financial education at Old Mutual (SA), who affirms that poor financial-planning habits are at the root of poor money management. This raises the importance of understanding the role of financial literacy where it can prevent a person from falling into a financial hole and can act as a ladder to climb out of this hole.

Financial literacy and financial planning thus jointly serve to provide a platform for PFM, which is the key to financial wellness and the alleviation of financial vulnerability.

The following are commonly used indicators of good PFM:

- effective credit management
- low debt-to-income ratio
- adequate insurance coverage
- positive cash flow
- increasing net worth
- tax planning
- risk management
- retirement planning
- estate planning
- low financial-gearing ratio
- not defaulting on payments

Therefore, it is imperative that consumers who aim to improve their PFM skills should undertake to make the above indicators their main objectives to ensure good financial

management. Thus, inability to engage in these types of financial practice may provide the basis for a need for financial education.

According to Kotzé (2006) and Braunstein and Welch (2002), a low financial literacy among individuals and households stems from certain factors which are perceived to be exogenous in nature and include, among other things, the following: predatory lending practices, the increasing complexity and variety of the financial products and services offered by financial institutions and the economy, committing a great deal of time on spending on consumption expenditure and less effort and time directed at accumulating wealth, increased longevity or life expectancy, the prevalent absence of financial education, and deteriorating pension and personal savings.

Insufficient financial education often leads to inappropriate financial behaviours by households and consumers which are detrimental to their financial health (Kotzé, 2006; Braunstein & Welch, 2002). A lack of education in financial management may be exhibited by spending more than one's income, not keeping records of financial transactions, inadequate planning and implementation of a regular investment programme, and inability to make correct financial decisions.

Financial literacy undoubtedly plays a pivotal role in the financial management of consumers and households. Braunstein and Welch (2002) point out that more information about financial matters could lead to improved financial behaviour. However, it is important to note that studies have also shown that increased information does not automatically lead to such improvement.

2.7 CONCLUSION

This chapter provided a detailed exposition of the literature on consumer savings and debt which are important components of PFM, upon which the theory of this dissertation is based. Aspects pertinent to savings and debt which were explored provided an

insight into and a much broader comprehension of the underlying drivers of these two components.

The trends in and development of savings and debt provided a glimpse of the background to and an indication of the direction into which South African consumers and households are heading. A very gloomy picture was painted because of increasing spending on expenditure and higher levels of debt incurred by consumers which is financed by available funds.

Available funds consist of various sources of income and credit take-ups used to finance spending on expenditure and also to service debt costs. Consumers who exhaust their available funds may be left with no funds to save and may also utilise some of their savings instruments to finance their spending, which would lead to lower savings. Consumers with lower medium- and long-term savings could for instance jeopardise their future financial security and wellness, especially at retirement, and may also be devoid of funds for unforeseen circumstances. This could lead to financial difficulties and future uncertainties manifesting in higher levels of financial vulnerability.

The role of financial literacy is clearly emphasised in the literature on PFM, where a number of studies have shown that it is very difficult, if not impossible, for consumers and households to manage their personal finances effectively without having acquired the skills to understand the basics of financial management. Underlying factors determining and affecting consumer and household literacy were also explored to provide a much better understanding of the role and influence of financial literacy in personal financial planning.

This chapter provides the basis for and served as a background to the next chapter, which will focus mainly on the research design and the analytical model based on the statistical regression in debt and savings instruments which try to address the problem statement.

CHAPTER 3

RESEARCH DESIGN

3.1 INTRODUCTION

This chapter contains a detailed exposition of the research design adopted in this study. The research design provides the basis for the framework and the structure pertinent to the research approach and process followed in the study with the aim of addressing the research hypothesis. Processes and techniques involved in the population selection, design of the sample plan, research instrument and methods used for gathering and analysing data and other aspects pertinent to the ethical considerations in this study are also outlined in this chapter.

The statistical model used in the study is also presented by means of a logistic-regression model. Logistic-regression analysis is used to test the hypothesis in determining whether there is a statistically significant relationship between consumer debt-instrument take-up and savings-tool usage.

3.2 RESEARCH DESIGN

It is imperative that the research should be appropriately designed to arrive at the solution to the problem statement (Sekaran & Bougie, 2010). Saunders, Lewis and Thornhill (2009) further maintain that the nature of the research question determines the type of the research answer, which can be explanatory, or descriptive and explanatory. The synopsis of elements used in the construction of a typical research design as applied in this study comprises philosophies, approaches, strategies, choices, time horizons, and techniques and procedures (Saunders et al., 2009).

3.2.1 Explanatory research

In this study, an explanatory research strategy, based on a deductive research approach, was adopted. An explanatory study places an emphasis on studying a situation or a problem in order to explain the relationship between variables where the data are subjected to statistical tests such as correlations. Therefore, the nature of the problem that this study seeks to address necessitated an explanatory approach. More specifically, this study is aimed at determining the relationship between consumer debt-instrument take-up and savings-tool usage.

In compliance with the statistical requirements for descriptive requirements for the analysis of data, the data set used in this study was based on the data gathered through a quantitative approach by the 2009BMR/FinMark Trust Consumer Financial Vulnerability (CFV) survey which was conducted in South Africa.

This type of datum allows for inferential statistical analysis for determining the cause-effect analysis which is further applied in the construction of a logistic-regression model for analysing the independent variables (debt instruments) and dependent variables (savings tools) as depicted in the model.

The CFV survey was aimed at gathering data for constructing a consumer- financial-vulnerability index of South African households and consumers. The collated data comprise South African consumer debt-instrument and savings-tool usage, households' financial behaviour and attitudes, and the demographic profiles of the respondents.

3.3 RESEARCH TECHNIQUES OF THE RESEARCH DESIGN

The research design and tactics are clearly differentiated by Saunders, et al. (2009), who point out that tactics involve a detailed description of the data collection and analysis and decisions in that connection involving the selection of either a quantitative or a qualitative data-collection method and the subsequent choice of either qualitative or

quantitative data-analysis procedures. A quantitative data-collection approach was adopted in the CFV study by means of a survey and likewise quantitative data-analysis techniques were applied in this study.

The following sections will provide a detailed exposition and description of the target population, sampling technique and size, questionnaire design and validation, data-collection method, research ethical issues and descriptive and inferential analysis of data pertinent to this study.

3.3.1 Research population

To ensure a fair representation (implying that the participants should reflect a true picture of all South African consumers) of households across the different consumer segments according to their socioeconomic statuses, the target population of the study comprised all households in South Africa. Households were selected from municipal districts within the provinces as defined by the National Municipality Demarcation Board to ensure that the broader population in South Africa from all the provinces was fairly represented. According to the latest Statistics South Africa (Stats SA)'s 2011 census key results, the total population of the nine South African provinces comes to 51.8 million people.

3.3.2 Sampling plan

To allow for a broad and fair representation of all segments of the population in accordance with the broad socioeconomic profile of households in South Africa, a two-stage sampling approach was used. This process entailed a stratification of the population according to telephone ownership across the nine provinces where samples of households both with and without landline telephones were drawn.

A probability-systematic random-sampling technique was used to draw sample units of households with and without access to landline telephones. This entailed computing the

intervals for a random selection of n^{th} sample units from the sample frame according to the size of the sample and the size of the population. This technique was applied specifically for samples drawn from the telephone directories used in the computer-assisted telephone-interviewing (CATI) approach.

A probability-sampling approach makes provision for each and every element in the population to have an equal and known chance of being selected in the sample. It also adds the advantage of undertaking a statistical evaluation of the sample error to assess how likely the sample is to be unrepresentative of the target population, and by how much (Tustin, Ligthelm, Martins & Van Wyk, 2005). The findings of the study based on the probability sample can also be generalised to the population of the study.

3.3.2.1 Sample frame

Telkom telephone directories representing the nine provinces and the selected municipalities were used as sampling frames for selecting the respondents that were interviewed via the CATI approach.

Recent provincial and municipal population and demarcation information from Stats SA sourced from the National Demarcation Board was used to determine the sample frame from which the sample for the in-house face-to-face interviews was drawn.

3.3.2.2 Sample size

A total of 571 respondents with landline telephones were interviewed by using the CATI technique. This approach also made it possible to substitute all the non-responses (due to refusals and non-availability of respondents) from the telephone list, until the sample size (571) was reached.

A sample of 405 was drawn for the second group of respondents for face-to-face interviews, from which only 316 were successfully interviewed - implying that there was a sample loss of only 89 due to non-response errors.

Therefore, a total realised sample of 887 was obtained based on the following two sample groups representing the different socioeconomic strata of respondents:

- The first sample group of 571 respondents with access to landline telephones was drawn to represent more affluent and middle-class households across all the provinces and municipalities.
- The second sample group involved 316 respondents with no access to landline telephones in areas with limited amenities. This group represented less affluent and low-income households.

When drawing the sample sizes for the two groups of respondents certain statistical requirements for determining the sample size were taken into account, namely the degree of variability in the population, the degree of precision associated with the population estimates based on the sample, and the degree of confidence associated with any population estimates.

Apart from the statistical considerations when drawing the sample, practical concerns were taken into account when determining the sample size, including, among other things, limited resources such as costs, time and personnel resources and capacity.

3.3.3 Research instrument

A comprehensive structured questionnaire was designed specifically for the quantitative research survey among consumers. In compliance with the statistical inferential-analysis requirements, the bulk of measurement scales used in the questionnaire were interval-level and nominal-level (as required by logistic regression) scales. A large number of such scales comprised components pertinent to consumer financial vulnerability which measured the savings-tool and debt-instrument usage, expenditure vulnerability, debt-servicing vulnerability, income vulnerability and the demographic profile of the respondent.

3.3.3.1 *Questionnaire validation*

The questionnaire was subjected to a validation process to ensure its reliability and that it met its objectives, namely

- collecting accurate and reliable information from the respondents to meet the objectives of the study, and
- encouraging participation of the respondents in the survey to maximise data elicited from the respondents

The questionnaire-validation process comprised a series of brainstorming sessions between the team from the BMR and FinMark Trust to ensure that the contents and structure met the objectives of the study.

The questionnaire was further subjected to a verification process by a team of experts from leading financial institutions such as the Reserve Bank and the National Credit Regulator.

Prior to its finalisation for full-scale implementation the questionnaire was piloted among respondents who matched the profile of consumers to be interviewed.

➤ *Statistical validation*

To further ensure that the questionnaire met its objectives as stated above, the reliability of the questions contained in the questionnaire were measured by means of a Cronbach's Alpha statistical-reliability test which was applied to determine the internal consistency of the variables used specifically for measuring the credit instruments and savings tools.

The results of the test were as follows:

- The internal consistency of the variables used for measuring the credit instruments showed a reliability of 0.776.
- The internal consistency of the variables used for measuring the savings tools showed a reliability of 0.825.

An internal-consistency reliability score above 0.65 signifies a highly reliable questionnaire. This implies that the reliability of the variables used in the questionnaire for measuring credit-instrument and savings-tool usage by the respondents in the survey met the minimum acceptability requirement.

3.3.4 Data-collection techniques and analysis procedure

A quantitative data-collection technique was applied throughout the survey by means of a structured questionnaire followed. A quantitative statistical- data-analysis procedure using an SPSS computer program was applied for generating numerical data used for the logistic-regression analysis for addressing the research problem.

To allow for compliance with the two-stage sampling approach, the data-collection process entailed two data-collection techniques involving the following phases:

- First, the CATI technique was considered to be more appropriate for data collection for households with access to landline telephones. This technique entails conducting telephonic interviews with the respondents while simultaneously capturing the responses on the computer by using an electronic web-based questionnaire. The CATI technique is renowned for its cost effectiveness, efficiency and rapidity as far as data collection is concerned.
- The second stage of the data-collection process was based on the in-house face-to-face personal-interview approach with fieldworkers using a paper-based

questionnaire for interviewing the selected households with no access to landline telephones residing in areas with limited amenities. These respondents represented less affluent and low-income households as indicated earlier.

3.4 RESEARCH ETHICS

It is important to note that the author of this dissertation was directly involved in the research process, and therefore was subjected to the Unisa Research Ethics Policy. In accordance with the requirements of the Unisa Research Ethics Policy it was ensured that the following ethical conditions were met during the research process:

- Participation in the research was voluntary, and could be terminated by the respondents at any time.
- Participants had to indicate their informed consent to take part in the study.
- Anonymity of the participants was guaranteed, and the data collected were kept confidential.
- The data collected were used only for research purposes.

Therefore, this study conformed to the generally accepted norms and values as stipulated in the Unisa Research Ethics Policy document aimed at achieving the following objectives:

- to enable researchers to enhance their capability of undertaking ethical research
- to maintain researchers' independence, especially when confronted with undue influence or pressure which may compromise their integrity or that of their research
- to discourage unethical research practices
- to serve as a basis for policymakers and to provide an enabling environment for practising ethical research
- to provide an additional resource for the teaching and training of students in research
- to make ethics an integral part of the planning and methodology of research

- to preserve and promote the autonomy, quality, legitimacy and credibility of research
- to protect and promote the rights of research participants and honour their trust in researchers and research
- to strengthen the research-ethics review system in the University where research involves human participants, animals, or other living or genetically modified organisms.

3.5 DATA ANALYSIS

3.5.1 Choice of data-analysis techniques

Logistic-regression analysis was used in this study to predict the likelihood of consumers who make use of credit instruments using certain savings tools, where consumer savings-tool usage represented the dependent variables and consumer credit-instrument usage represented the independent variables. The outcome of the analysis also showed if there was a statistically significant relationship between debt-instrument and savings-tool usage.

The above entailed computing the strength of the relationship between the dependent variables (savings-instruments usage) and the independent variables (debt-instrument usage) to determine the predictive effect of the independent variables. This predictive effect of the independent variables on the dependent variables was indicative of the likelihood of consumers who make use of certain credit instruments using certain savings tools.

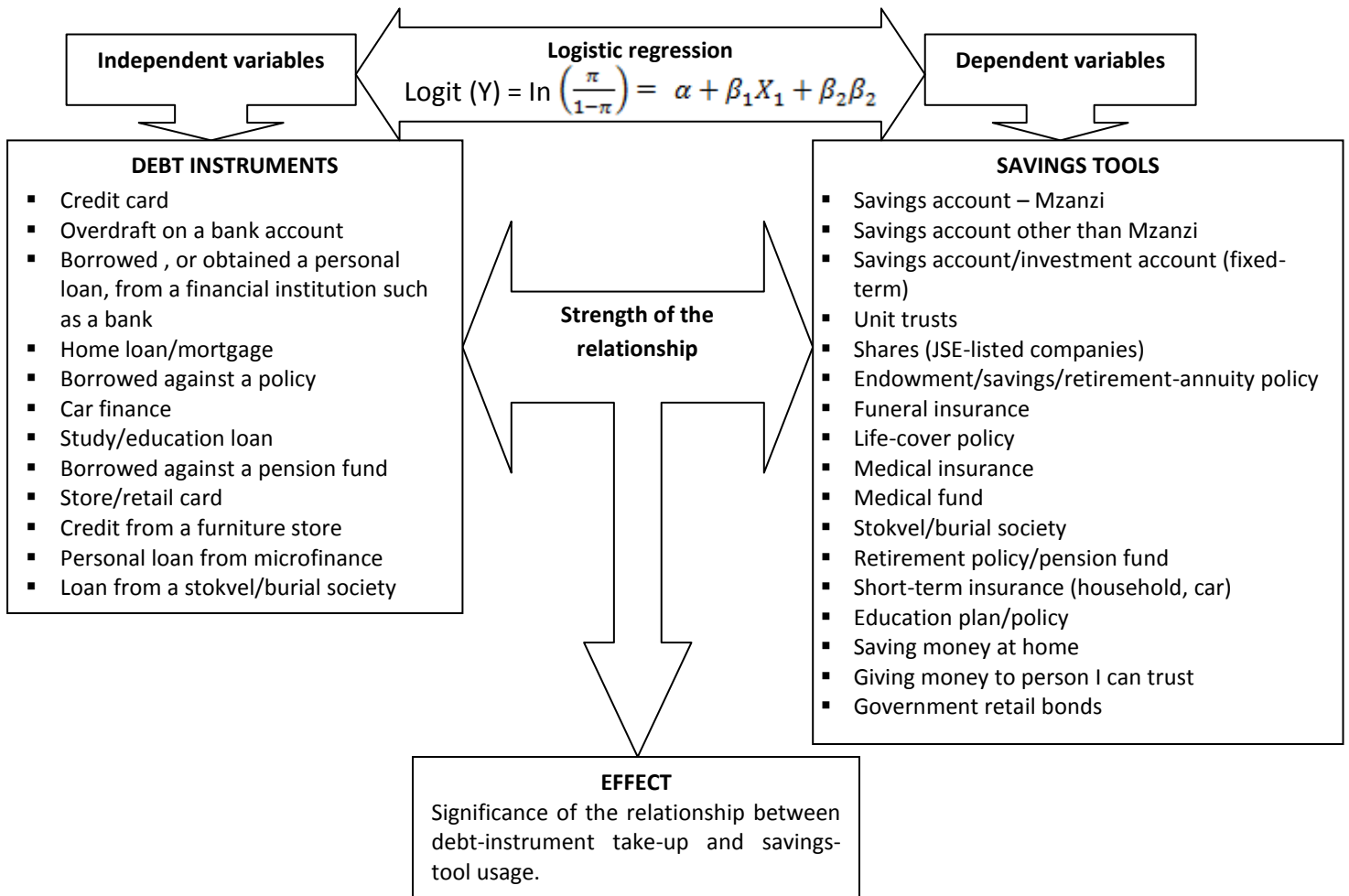
The logistic-regression model was appropriate for analysing variables that were measured using nominal measurement scales in the research instrument. The suitability of the logistic-regression analysis was illustrated in the analysis and prediction of a dichotomous outcome by a number of studies using nominal data (Peng, Lee, & Ingersoll, 2002).

Nominal data are distinguished from other levels of measurements by Pearson (2010), who assigned numbers to a response which is a variable defining the quality of some attribute - for example, the debt instruments and savings tools used by the consumers were assigned numbers using dichotomous-response questions. Dichotomous-response questions provide an option of two responses, allowing the variables coded 0 or 1 to be entered into a regression equation: for instance, consumers were required to indicate either “yes” or “no” if they use debt instruments and savings tools. Therefore, a dependent variable that is categorical with two possible values (i.e. a binary variable) can be used in the logistic regression to describe the way in which that dependent variable is related to a numerical predictor variable (Peck, Olsen & Devore, 2008).

The data used in this study were generated by a research instrument that used nominal measurement scales in the form of dichotomous-type questions. Therefore, the logistic-regression test was considered to be suitable for measuring the relationship between independent and dependent variables and also for measuring the predictive effect of the independent variables.

The logistic-regression model used in this study is schematically presented as follows:

FIGURE 3.1
LOGISTIC-REGRESSION MODEL



The logistic-regression model illustrated in figure 3.1 depicts the debt instruments denoting independent variables that are regressed against the dependent variables as savings tools. Therefore, the logistic-regression technique determines the strength of the relationship between the financial-obligation items and savings tools utilised by consumers and households. The strength of the relationship determines the predictive effect which provides an estimation of the likelihood of consumers utilising certain financial-obligation items to use certain savings tools.

It is important to note that in the survey 12 debt instruments and 16 savings tools items were measured. Literature focusing on savings and debts paradoxically distinguishes more than 30 savings products, which include short-, medium- and long-term and other saving strategies (see ch. 2). There are also two major household-debt components, differentiated as mortgage-advance items and seven consumer items respectively, explored in the literature (Kuhn, 2010d). It is worth noting that the savings vehicles and debt instruments depicted in this model cover and represent much broader categories of savings and debt instruments that are used mainly by consumers.

3.5.2 Application of the logistic-regression model in relation to this study

The application of the logistic-regression model is more suitable in the following circumstances: for predicting a categorical dependent variable on the basis of continuous and/or categorical independent variables. It can also be applied to determine the effect size of the independent variables on the dependent variables, ranking the relative importance of the independent variables, assessing interaction effects, and understanding the impact of covariate control variables (Garson, 2010).

The impact of the predictor variables, which is explained in terms of the odds ratio in the logistic regression, is computed by means of a logit, which is the natural logarithm of the odds ratio which is the central mathematical concept underlying the logistic regression (Peng et al., 2002). The impact of the predictor variables (i.e. of the independent variables on the dependent variables) is explained in terms of the odds ratio and can be

expressed as
$$\frac{\text{Prob}_{\text{event}}}{\text{Prob}_{\text{no event}}} = e^{B_0 + B_1X_1 + \dots + B_nX_n}$$

The estimated coefficients ($B_0, B_1, B_2, \dots, B_n$) are actual measures of the changes in the ratio of the probabilities, which are the odds ratios. It is important to note that the procedure that calculates the logistic coefficient compares the probability of an event occurring with the probability of it not occurring. Therefore, a positive coefficient increases the probability, whereas a negative value decreases the predicted probability (Hair, Anderson, Tatham & Black, 1998).

Logistic regression applies maximum-likelihood estimation after transforming the dependent variable into a logit variable (i.e. the natural log of the odds of the dependent variable occurring or not). In this way, logistic regression estimates the odds of a certain event occurring. Note that logistic regression calculates changes in the log odds of the dependent variable, and not changes in the dependent variable itself, as ordinary-least-squares (OLS) regression does.

Therefore, to address the stated hypothesis and research questions of this study, the logistic regression is applied to determine if there is a statistically significant relationship between the independent variables and the dependent variables.

3.5.2.1 The logistic-regression equation

When analysing the logistic-regression model, it is important to note that this model predicts the logit of Y from β (i.e. the usage of savings tools by customers). As stated earlier, the logit is the natural logarithm (\ln) of the odds of Y , and the odds are ratios of the probabilities (π) of Y happening (i.e. the likelihood of a consumer using a savings tool) to the probabilities ($1-\pi$) of Y not happening (i.e. no likelihood of a consumer using a savings tool). The odds ratio is the factor by which the independent increases or, if negative, decreases the log odds of the dependent variable. The odds ratios for the dependent variable are the odds of the dependent variable equalling the level of interest rather than the reference level. In binary logistic regression, this is usually the odds where the dependent = 1, rather than 0.

Therefore, the logistic model takes the following equation for multiple predictors, which in our case are debt instruments where,

$$\text{logit}(Y) = \text{natural log}(\text{odds}) = \ln\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_s X_s \quad (1)$$

Therefore,

$$\pi = \text{Probability } Y = \text{outcome of interest} / X_1 = x_1, X_2 = x_2$$

$$= \frac{e^{\alpha + \beta_1 X_1 + \beta_2 X_2}}{1 + e^{\alpha + \beta_1 X_1 + \beta_2 X_2}} \quad (2)$$

Where

- π is the probability of the outcome of interest or event (i.e. the likelihood in the usage of savings tools)
- α is the Y intercept (i.e. the constant of the equation)
- β_s are the logistic-regression coefficients of the predictor variable estimated by the maximum-likelihood (ML) method. The ML method is designed to maximise the likelihood of reproducing the data given the parameter estimates. The data are entered into the analysis as a 0- or 1- coding for the dichotomous outcome. Therefore,
- $\text{Exp}(\beta)$ is the odds ratio for the independent variable = natural log base e raised to the power of β .

Where

- e is the base of the system of natural logarithms
- Y is the logit, also called the log odds

Therefore,

$\text{Exp}(Y)$ is the odds ratio for the dependent variable, being the odds that the dependent variable equals the level of interest where in this binary logistic regression the odds = 1 rather than 0 (there are only two categories of the response variable).

- $Y = 1 \dots 17$ savings tools as dependent variables, as follows:
 - 1 = savings account - Mzansi
 - 2 = savings account other than Mzansi
 - 3 = savings account/investment account (fixed-term)
 - 4 = unit trusts
 - 5 = shares (employment funds, Sasol and Vodacom)
 - 6 = endowment/retirement-annuity policy

- 7 = funeral insurance
- 8 = life-cover policy
- 9 = medical insurance
- 10 = medical fund
- 11 = stokvel/burial/pension fund
- 12 = retirement policy/pension fund
- 13 = short-term insurance
- 14 = educational plan/policy
- 15 = savings at home
- 16 = giving money to a trustworthy person
- 17 = government retail bonds

➤ where $\beta = 1 \dots 13$ coefficients of independent (predictor) variables denoted by the following:

- 1 = credit card
- 2 = overdraft on a bank account
- 3 = home loan/mortgage
- 4 = borrowed against a policy
- 5 = car finance
- 6 = study/education loan
- 7 = borrowed against a pension fund
- 8 = insurance policies (car, household and life-insurance policies)
- 9 = store/retail card
- 10 = credit from a furniture store
- 11 = personal loan from microfinance
- 12 = loan from a stokvel/burial society
- 13 = loan from family/friends

As stated earlier, logistic-regression analysis provides the basis for the discussion of the findings of this study to address the research hypothesis regarding the predictive effect

of debt instruments on consumer savings-tool usage. This entails application of the logistic-regression in the analysis and discussion of the findings, including the logit coefficients corresponding to the β coefficients in the logistic equation, and pseudo R^2 to summarise the strength of the relationship.

3.6 CONCLUSION

This chapter provided a brief overview of aspects and items pertinent to the research design adopted in this study, namely nature of the research design, research population, sampling plan, sample size, research instrument, data- collection method, research ethics, and respondents' demographic profile.

The analysis of the demographic information will be further extended in chapter 4 by applying the cross-tabulation statistical technique for the savings tools and the debt instruments. The outcome of the analysis will provide an overview of the respondents' usage of the savings tools and debt instruments according to their demographic attributes, which will also be interpreted in conjunction with the outcome of the logistic-regression analysis.

CHAPTER 4

RESEARCH RESULTS AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

This chapter contains a detailed discussion of the analysis and interpretation of the research data and the results yielded by the analytical model presented in chapter 3, with the aim of addressing the research-problem statement.

The analysis commences by presenting a brief description of the demographic profile of respondents who took part in the survey. The influence of the demographic attributes on consumer savings-tools and debt-instrument usage will also form an integral part of the analysis and discussion prior to the analysis of the logistic-regression model. This will provide an indication of the type of demographic attribute that plays an important role in the usage of certain savings tools and debt instruments analysed in the logistic-regression model.

The discussion of the findings from the logistic regression will entail a detailed analysis of the significance of the relationship between consumer debt-instrument take-up and savings-tool usage, an analysis of the correctness of the model fit by applying the Hosmer-Lemeshow Goodness-of-Fit test, and an analysis of the exponents of the β -coefficients denoting the odds ratios which measure the effect size in the logistic regression when comparing predictor variables.

The chapter concludes with a synopsis highlighting pertinent aspects that featured very prominently in the analysis of the regression model which seeks to answer the research-problem statement and to achieve the objectives of the study. It is important to take note that for the purposes of the discussion and consistency in this chapter all the

analyses of the findings are depicted in a tabular format and are presented in the appendix.

4.2 RESPONDENTS' DEMOGRAPHIC PROFILE

The demographic information of the respondents who participated in the survey stems from the five measured variables, namely gender, employment status, level of education, age and income-earning status.

The demographic information of the respondents provides an overview in relation to the characteristics of the consumers who took part in the survey in terms of their life-cycle (age) and socioeconomic status (level of education, employment and income-earning status) at the time of participating in the study. This gives a clear indication of the type of consumer who participated in the survey and who utilises the savings tools and debt instruments included in the regression model.

4.2.1 GENDER OF THE RESPONDENTS

TABLE 4.1
GENDER OF THE RESPONDENTS

Gender	n	%
Female	415	46.79
Male	472	53.21
Total	887	100

A marginally higher proportion of male respondents with a variation of 6.42% higher than females was interviewed in the survey, as shown in table 4.1. This discrepancy could be attributed to the fact that most of the interviews were conducted with the heads of households, which in most cases still appeared to be predominantly male.

4.2.2 EMPLOYMENT STATUS OF THE RESPONDENTS

TABLE 4.2
EMPLOYMENT STATUS OF THE RESPONDENTS

Employment status	n	%
Self-employed	63	7.10
Full-time employed	263	29.65
Part-time employed	46	5.19
Unemployed	247	27.85
Not available for employment (housewife, retired, student)	268	30.21
Total	887	100

A considerable number of respondents appeared to be outside the employment bracket (i.e. either unemployed or unavailable for employment), as illustrated in table 4.2: more than a quarter of the respondents indicated that they were unemployed and almost a third fell into the category of "not available for employment". Less than half (i.e. 41.94%) of the other respondents interviewed indicated that they were self-employed, full-time employed and part-time employed. This finding, especially as far as unemployment is concerned, is consistent with the national unemployment figures, as is evident from the Statistics South Africa Quarterly labour force survey (2011c), which shows that between the second and the third quarters of 2011 unemployment was reported to be 25%.

4.2.3 RESPONDENTS' LEVEL OF EDUCATION

TABLE 4.3
RESPONDENTS' LEVEL OF EDUCATION

Level of education	n	%
No schooling	101	11.39
Grades 1 to 7	174	19.62
Grades 8 to 11	158	17.81
Matric	247	27.85
Postmatric certificate, diploma, degree	180	20.29
Postgraduate qualification	27	3.04
Total	887	100

More than a quarter of the respondents had a matric qualification, and two out of ten had a postmatric qualification. A relatively lower proportion of respondents indicated that they had a postgraduate qualification, followed by those who had not received any form of formal schooling, as shown in table 4.3. The overall outcome of the distribution of respondents according to level of education also reflects the national figures as depicted in the Statistics South Africa community survey (2007), showing that 10.3% of persons aged 20 years and older have no schooling, whereas 18.6% had a matric qualification and 40.1% had some secondary education.

4.2.4 AGE DISTRIBUTION OF THE RESPONDENTS

TABLE 4.4
AGE DISTRIBUTION OF THE RESPONDENTS

Age category	n	%
Under 21	92	10.37
22-34	138	15.56
35-44	156	17.59
45-54	173	19.51
55-59	82	9.24
60+	246	27.73
Total	887	100

The age distribution of the respondents was clustered into six categories ranging from 21 and younger to the age of 60 and older, as depicted in table 4.4. More than a quarter of the participants were over the age of 60, whereas the majority of the respondents were in the age categories of 35 to 44 and 45 to 54.

4.2.5 RESPONDENTS EARNING AN INCOME

TABLE 4.5
RESPONDENTS EARNING AN INCOME

Earning an income	n	%
Yes	577	65.05
No	306	34.5
No information	4	0.45
Total	887	100

Table 4.5 shows that just a third of the respondents indicated that they did not have any source of income to sustain their livelihood. Although this may seem to be unrealistic under normal circumstances, it has to be noted that studies on households show that some households are inclined to underreport income or may not regard any unconventional or informal sources of income as part of the household income such as salaries, wages and social grants.

In summary, the analysis of the respondents' demographics shows that there is no deviation from the national demographic profile as reported by the Statistics South Africa (2011) Mid-year population estimates, (2011) Quarterly labour-force survey and the (2007) Community survey, apart from the fact that a slightly higher percentage of households are still headed by males. As far as the employment status was concerned, just under a third of the respondents were self-employed and 2 in 16 were part-time employed and self-employed.

Most respondents indicated that they had a matric qualification followed by a postmatric qualification such as a diploma or a degree. A marginally higher proportion of the respondents (just under a third) were above the age category of 60, followed by those in the age categories of 45 to 55. Just over a third of the respondents indicated that they did not earn an income. It is also important to note that the respondents who indicated that they did not earn an income may be dependent on other family members and

friends in the form of remittances and donations. However, respondents' inclination to underreport on other informal sources of income cannot be ruled out in these cases.

4.3 **CONSUMER SAVINGS -TOOL AND DEBT- INSTRUMENT- USAGE ACCORDING TO DEMOGRAPHIC ATTRIBUTES**

This section provides a detailed analysis of debt- instrument and savings-tool usage according to consumers' demographic attributes, namely gender, employment status, level of education, and age group.

The literature on PFM shows that individuals' demographic attributes have an impact on savings-tool- and debt-instrument-usage trends. The underlying demographic attributes such as age, income, gender and education that were perceived to commonly impact on consumers' behaviour with regard to savings and debt-instrument usage were explored by Hyun Cho (2009) and Betti et al. (2007).

The analysis of debt-instrument and savings-tool usage by consumers according to demographic attributes provides an in-depth understanding of the trends in (and the implications of) the usage of certain savings tools and debt instruments by consumers from different segments of society as reflected by their demographic attributes.

4.4 **CONSUMER DEBT- INSTRUMENT USAGE ACCORDING TO DEMOGRAPHIC ATTRIBUTES**

This section outlines consumer **debt-instrument** usage according to the demographic attributes explored in the study, namely gender, employment status, level of education and age.

The usage of debt instruments by the respondents according to each of the above-mentioned demographic attributes was measured by using the closed-ended-responses technique in the form of dichotomous responses where the respondents were given the

option to indicate whether they used a particular instrument or not (see sect. 3.3.3 [“research instrument”] above). For the purpose of the analysis the results are presented in a tabular format and were computed by means of an SPSS program.

The analysis of the results is based on the *n* values (number of respondents) with the relative corresponding proportions regarding the respondents’ usage of 13 debt instruments measured in the survey.

4.4.1 CONSUMER DEBT- INSTRUMENT USAGE ACCORDING TO GENDER

The analysis of the usage of debt instruments shows that the usage of these instruments by females is relatively higher than the usage by males, as shown in table 4.6. This finding is clearly in line with the literature on the influence of gender on debt which shows that young females are also caught in the debt trap, which is attributed to a cultural change in society where more women are financially independent and entering the job market.

TABLE 4.6
CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO GENDER

Debt instruments	Gender											
	Female				Male				Total			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Credit card	137	33.9	267	66.1	125	27.4	332	72.6	262	30.4	599	69.6
Overdraft on a bank account	47	11.8	350	88.2	22	4.9	427	95.1	69	8.2	777	91.8
Personal loan, from a financial institution such as a bank	55	13.7	347	86.3	45	9.9	411	90.1	100	11.7	758	88.3
Home loan/mortgage	60	14.6	350	85.4	53	11.5	407	88.5	113	13	757	87
Borrowed against a policy	12	2.9	395	97.1	19	4.2	436	95.8	31	3.6	831	96.4
Car finance	84	20.5	326	79.5	70	15.1	395	84.9	154	17.6	721	82.4
Study/education loan	26	6.4	383	93.6	21	4.5	442	95.5	47	5.4	825	94.6
Borrowed against a pension fund	14	3.4	392	96.6	15	3.2	449	96.8	29	3.3	841	96.7
Store/retail card	188	46.2	219	53.8	196	42.2	269	57.8	384	44	488	56
Credit from a furniture store	84	20.8	319	79.2	95	20.5	368	79.5	179	20.7	687	79.3
Personal loan from microfinance	28	7	374	93	41	8.8	424	91.2	69	8	798	92
Loan from a stokvel/burial society	53	13.2	349	86.8	53	11.3	414	88.7	106	12.2	763	87.8
Loan from family/friends	79	19.7	322	80.3	110	23.8	352	76.2	189	21.9	674	78.1

The literature shows that store cards are the most often used debt instruments, as shown in figure 2.11. However, the Pearson Chi-Square analysis shows there is no statistically significant difference (i.e. Sig. = 0.230) in the usage of store cards between men and women.

A slightly higher proportion of men than women make use of personal loans from microfinance institutions, and also from family/friends. Pearson Chi-Square analysis shows that there is no statistically significant difference (i.e. Sig. = 0.325 for microloans and Sig. = 0.145 for loans from family/friends) in the usage of these two types of debt instrument.

A higher proportion of women than men make use of credit cards. Pearson Chi-Square analysis shows that there is a statistically significant difference in the usage of these debt instruments by both males and females (i.e. Sig. = 0.037 for credit cards, and Sig. = 0.034 for insurance policies). The Pearson Chi-Square statistic is significant at the level of 0.05.

No fewer than five of the debt instruments were used by more than 20% of the **females**. namely:

- store/retail cards
- credit cards
- car finance
- credit cards from furniture stores
- loans from family/friends

Debt instruments used by more than 20 % of the **male** consumers included the following four main debt instruments:

- store/retail cards
- credit cards

- loans from family/friends

In summary, debt instruments that appear to be most commonly used by both males and females as shown by their relatively higher proportions of usage include the following:

- store cards
- credit cards

4.4.2 CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO EMPLOYMENT STATUS

The analysis of the above is depicted in table 4.7.

To provide a broader picture of the employment profile and for the purpose of analysis, the respondents' employment statuses are distinguished as self-employed, full-time employed, part-time employed, unemployed, and unavailable for employment (including students, pensioners and housewives).

TABLE 4.7
CONSUMER DEBT- INSTRUMENT USAGE ACCORDING TO EMPLOYMENT STATUS

Debt instruments	Employment status											
	Self-employed				Full-time employed				Part-time employed			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Credit card	23	37.1	39	62.9	118	46.3	137	53.7	14	30.4	32	69.6
Overdraft on a bank account	11	18	50	82	42	16.9	206	83.1	1	2.2	45	97.8
Personal loan, from a financial institution such as a bank	11	18.2	50	82	50	19.8	202	80.2	5	11.1	40	88.9
Home loan/mortgage	14	22.6	48	77.4	62	24.4	194	75.8	4	8.9	41	91.1
Borrowed against a policy	4	6.6	57	93.4	19	7.5	234	92.5	1	2.3	43	97.7
Car finance	22	34.9	41	65.1	81	31.4	177	68.6	1	2.2	45	97.8
Study/education loan	2	3.2	61	96.8	26	10.1	232	89.9	2	4.4	43	95.6
Borrowed against a pension fund	3	4.8	59	95.2	10	3.9	247	96.1	2	4.3	44	95.7
Store/retail card	33	52.4	30	47.6	164	63.6	94	36.4	19	41.3	27	58.7
Credit from a furniture store	15	24.2	47	75.8	71	27.6	186	72.4	12	26.1	34	73.9
Personal loan from microfinance	2	3.2	60	96.8	27	10.5	231	89.5	3	6.7	42	93.3
Loan from a stokvel/burial society	7	11.5	54	88.5	43	16.6	216	83.4	7	15.2	39	84.8
Loan from family/friends	14	22.6	48	77.4	50	19.8	202	80.2	16	35.6	29	64.4

TABLE 4.7

CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO EMPLOYMENT STATUS

Continued

Debt instruments	Employment status											
	Unemployed				Not available for employment				Total			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	N	%
Credit card	37	15.5	202	84.5	70	27	189	73	262	30.4	599	69.6
Overdraft on a bank account	6	2.5	233	97.5	9	3.6	243	96.4	69	8.2	777	91.8
Personal loan, from a financial institution such as a bank	22	9.1	221	90.9	12	4.7	245	95.3	100	11.7	758	88.3
Home loan/mortgage	19	7.8	226	92.2	14	5.3	248	94.7	113	13	757	87
Borrowed against a policy	2	0.8	243	99.2	5	1.9	254	98.1	31	3.6	831	96.4
Car finance	22	9	223	89.4	28	10.6	235	89.4	154	17.6	721	82.4
Study/education loan	9	3.7	236	96.3	8	3.1	253	96.9	47	5.4	825	94.6
Borrowed against a pension fund	6	2.4	239	97.6	8	3.1	252	96.9	29	3.3	841	96.7
Store/retail card	81	33.1	164	66.9	87	33.5	173	66.5	384	44	488	56
Credit from a furniture store	41	16.9	202	83.1	40	15.5	218	84.5	179	20.7	687	79.3
Personal loan from microfinance	24	9.8	220	90.2	13	5	245	95	69	8	798	92
Loan from a stokvel/burial society	20	8.2	233	91.8	29	11.2	231	88.8	102	12.2	763	87.8
Loan from family/friends	64	26.2	180	73.8	45	17.3	215	82.7	189	21.9	674	78.1

Findings from the analysis of consumer debt-instrument usage according to employment status shows that a relatively higher proportion of consumers who are employed (i.e. either self-, full-time- or part-time employed) than consumers who are unemployed or non-available for employment make use of debt instruments. Logically speaking, one would expect employed consumers to have access to credit facilities and consequently to incur more debt than unemployed consumers.

A relatively lower frequency in the usage of debt instruments by at least 20% of the **self-employed consumers** was recorded for the following four debt instruments:

- store/retail cards
- credit cards
- car finance

Full-time-employed consumers represented a relatively higher proportion of consumers that make use of debt instruments than other consumers in the employment

categories. The debt instruments the most commonly used by full-time-employed consumers include the following:

- store/retail cards
- credit cards
- car finance

Part-time-employed consumers represented a relatively lower proportion of consumers that make use of debt instruments than other employment categories. There are three debt instruments that appear to be commonly used by part-time-employed consumers, namely

- store/retail cards
- loans from family and friends
- credit cards

Rationally speaking, a relatively lower proportion of **unemployed consumers** utilise debt instruments, yet ironically the proportion is marginally higher than that of part-time-employed consumers. The debt instruments the most commonly used by unemployed consumers include the following:

- store/retail cards
- loans from family and friends

The analysis of the last category of consumers denoting **consumers not available for employment** shows that the three most commonly used debt instruments are

- store/retail cards
- credit cards

The debt instruments the most commonly used by consumers who are **unemployed and not available for employment** are

- store/retail cards

Employed (i.e. self-, part-time-, and full-time-employed) consumers most commonly use the following debt instruments:

- store/retail cards
- credit cards

The debt instruments that appear to be the most commonly and frequently used by consumers across **all employment categories** are

- store/retail cards

4.4.3 CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO LEVEL OF EDUCATION

The analysis of consumer debt-instrument usage according to consumers' level of education is depicted in table 4.8.

The levels of education of consumers who use debt instruments are clustered into six categories, namely no schooling, Grades 1 to 7, Grades 8 to 11, matric, a postmatric qualification, and a postgraduate qualification.

TABLE 4.8
CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO LEVEL OF EDUCATION

Debt instruments	Level of education											
	No schooling				Grades 1 to 7				Grades 8 to 11			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Credit card	21	21	79	79	19	11.5	146	88.5	31	20.1	123	79.9
Overdraft on a bank account	2	2	96	98	4	2.4	160	97.6	5	3.3	146	96.7
Borrowed, or obtained a personal loan, from a financial institution such as a bank	6	6.1	92	93.9	9	5.4	158	94.6	15	9.8	138	90.2
Home loan/mortgage	3	3	97	97	6	3.6	162	96.4	10	6.5	145	93.5
Borrowed against a policy	3	3	96	97	1	0.6	166	99.4	5	3.2	150	96.8
Car finance	7	6.9	94	93.1	10	5.9	159	94.1	14	8.9	143	91.1
Study/education loan	5	5	96	95	6	3.6	163	96.4	5	3.2	149	96.8
Borrowed against a pension fund	4	4	97	96	3	1.8	166	98.2	4	2.6	151	97.4
Store/retail card	33	33	67	67	49	29	120	71	68	43.9	87	56.1
Credit from a furniture store	21	21	79	79	33	19.8	134	80.2	32	20.8	122	79.2
Personal loan from microfinance	15	15	85	85	18	10.8	148	89.2	10	6.4	146	93.6
Loan from a stokvel/burial society	16	16.2	83	83.8	21	12.6	146	87.4	15	9.6	141	90.4
Loan from family/friends	34	34	66	66	46	27.5	121	72.5	37	23.7	119	76.3

TABLE 4.8
CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO LEVEL OF EDUCATION

Continued

Debt instruments	Level of education															
	Matric				Postmatric qualification				Postgraduate qualification				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Credit card	80	33.6	158	66.4	93	52.5	84	47.5	18	66.7	9	33.3	262	30.4	599	69.6
Overdraft on a bank account	19	8.2	214	91.8	34	19.7	139	80.3	5	18.5	22	81.5	69	8.2	777	91.8
Personal loan, from a financial institution such as a bank	31	13	207	87	35	20	140	80	4	14.8	23	85.2	100	11.7	758	88.3
Home loan/mortgage	44	18.3	196	81.7	42	23.3	138	76.7	8	29.6	19	70.4	113	13	757	87
Borrowed against a policy	8	3.4	229	96.6	10	5.6	167	94.4	4	14.8	23	85.2	31	3.6	831	96.4
Car finance	43	17.8	198	82.2	70	38.9	110	61.1	10	37	17	63	154	17.6	721	82.4
Study/education loan	10	4.1	234	95.9	16	9	162	91	5	19.2	21	80.8	47	5.4	825	94.6
Borrowed against a pension fund	10	4.2	230	95.8	3	1.7	175	98.3	5	18.5	22	81.5	29	3.3	841	96.7
Store/retail card	121	50	121	50	96	53.6	83	46.4	17	63	10	37	384	44	488	56
Credit from a furniture store	50	20.7	191	79.3	39	22	138	78	4	14.8	23	85.2	179	20.7	687	79.3
Personal loan from microfinance	14	5.8	226	94.2	11	6.2	167	93.8	1	3.7	26	96.3	69	8	798	92
Loan from a stokvel/burial society	29	12	213	88	23	12.9	155	87.1	2	7.4	25	92.6	106	12.2	763	87.8
Loan from family/friends	41	17.2	197	82.8	22	12.6	153	87.4	9	33.3	18	66.7	189	21.9	674	78.1

Overall the findings show that there is a relatively lower proportion of consumers with a level of education below matric who use debt instruments. The literature shows that highly educated consumers have the potential to earn a higher income, enabling them to easily access more credit, resulting in higher debt levels than consumers with a lower level of education. This is also supported by the finding as depicted in table 4.8 that consumers with postgraduate qualifications use more debt instruments than other consumers with a lower level of education.

A relatively higher frequency in the usage of the following three debt instruments was indicated by at least two in ten consumers with ***no schooling***:

- loan from family/friends
- store/retail card
- credit card

The analysis of consumers with a ***Grade 1 to 7*** qualification shows that the most commonly used debt instruments utilised by at least a quarter of the consumers include the following:

- store/retail cards
- loan from family and friends

A relatively higher proportion of consumers with a ***Grade 8 to 11*** qualification appears to make use of more debt instruments than other consumers with lower qualifications. This is clearly illustrated by the fact that more than a third of the consumers who commonly use at least four debt instruments, namely

- store/retail card
- loan from family/friends
- credit from a furniture store
- credit card

A relatively higher debt-instrument usage by no less than 20% of consumers with a **matric** qualification was recorded as follows:

- store/retail card
- credit card
- credit from a furniture store

Consumers with a **postmatric** level of education indicated a relatively higher debt-instrument usage than consumers with a matric qualification. This was evident from the responses of more than 50% of consumers with a postmatric qualification, indicating that these consumers make use of the following debt instruments:

- store/retail card
- credit card
- car finance

Notably, consumers with a **postgraduate qualification** appear to make use of more debt instruments than all other consumers with a lower level of education. The debt instruments the most commonly used by at least a third of the postgraduate consumers include the following:

- credit card
- store/retail card
- car finance
- loan from family/friends

The debt instrument the most commonly and frequently used by consumers across **all levels of education** proved to be

- store/retail cards

4.4.4 CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO AGE GROUP

Table 4.9 contains an analysis of consumer debt-instrument usage according to age group. Consumers that make use of debt instruments are clustered into six age categories, namely 21 and younger, 22 to 34, 35 to 44, 45 to 54, 55 to 59 and 60 and older.

**TABLE 4.9
CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO AGE**

Debt instruments	Age category											
	Younger than 21				22-34				35-44			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Credit card	3	3.3	89	96.7	13	9.5	124	90.5	32	20.8	122	79.2
Overdraft on a bank account	4	4.8	80	95.2	7	5.2	128	94.8	24	16.1	125	83.9
Personal loan, from a financial institution such as a bank	7	8.1	79	91.9	15	11	121	89	27	18.4	120	81.6
Home loan/mortgage	8	9.2	79	90.8	15	10.9	123	89.1	34	22.7	116	77.3
Borrowed against a policy	2	2.3	85	97.7	3	2.2	135	97.8	11	7.6	134	92.4
Car finance	11	12.5	77	87.5	17	12.4	120	87.6	43	28.1	110	71.9
Study/education loan	5	5.8	81	94.2	2	1.5	134	98.5	17	11.1	136	88.9
Borrowed against a pension fund	4	4.7	81	95.3	4	2.9	133	97.1	4	2.6	148	97.4
Store/retail card	37	43	49	57	50	36.5	87	63.5	92	60.1	61	39.9
Credit from a furniture store	13	15.5	71	84.5	23	16.8	114	83.2	41	27.2	110	72.8
Personal loan from microfinance	3	3.4	84	96.6	9	6.5	129	93.5	16	10.6	135	89.4
Loan from a stokvel/burial society	4	4.6	83	95.4	6	4.4	131	95.6	31	20.3	122	79.7
Loan from family/friends	7	8	80	92	31	23.1	103	76.9	35	23.3	115	76.7

TABLE 4.9
CONSUMER DEBT-INSTRUMENT USAGE ACCORDING TO AGE

Continued

Debt instruments	Age category															
	45-54				55-59				60+				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	N	%	n	%
Credit card	41	24	130	76	15	18.8	65	81.3	25	10.2	219	89.8	262	30.4	599	69.6
Overdraft on a bank account	22	13.4	142	86.6	6	7.6	73	92.4	6	2.6	229	97.4	69	8.2	777	91.8
Personal loan, from a financial institution such as a bank	29	17.2	140	82.8	11	13.6	70	86.4	11	4.6	228	95.4	100	11.7	758	88.3
Home loan/mortgage	32	18.8	138	81.2	12	14.8	69	85.2	12	4.9	4.9	232	95.1	13	757	87
Borrowed against a policy	10	6	158	94	2	2.5	79	97.5	3	1.2	240	98.8	31	3.6	831	96.4
Car finance	43	25	129	75	13	16	68	84	27	11.1	217	88.9	154	17.6	721	82.4
Study/education loan	14	8.1	158	91.9	7	8.6	74	91.4	2	0.8	242	99.2	47	5.4	825	94.6
Borrowed against a pension	5	2.9	166	97.1	4	4.9	77	95.1	8	3.3	236	96.7	29	3.3	841	96.7
Store/retail card	93	54.1	79	45.9	32	39.5	49	60.5	80	32.9	163	67.1	384	44	488	56
Credit from a furniture store	49	28.7	122	71.3	15	18.5	66	81.5	38	15.7	204	84.3	179	20.7	687	79.3
Personal loan from microfinance	18	10.7	151	89.3	10	12.3	71	87.7	13	5.4	228	94.6	69	8	798	92
Loan from a stokvel/burial society	24	14.2	145	85.8	13	16	68	84	28	11.6	214	88.4	106	12.2	763	87.8
Loan from family/friends	43	25.3	127	74.7	19	23.5	62	76.5	54	22.4	187	77.6	189	21.9	674	78.1

Findings regarding consumer debt-instrument usage according to age show that a relatively higher proportion of consumers in the age categories ranging from 35 to 54 use more debt instruments than the other much younger consumers and those older than 55. This finding coincides with the *Old Mutual Savings Monitor* survey (2010d), which found that a number of consumers in their mid-30s place a high value on material things, so that there is no alternative but to incur debt.

This finding is also congruent with the literature, which shows that consumers in the age group just above 30 are the most vulnerable to indebtedness due to little experience and scanty resources. This is further exacerbated by easy access to more credit to finance uncontrolled excessive spending on consumption expenditure (Jacobs & Smith, 2010). Contrary to young people, older people (especially those beyond the age of 50 with children) have the most resources and are less reliant on credit.

Analyses of the findings thus show that more than a third of consumers ***under the age of 21*** indicated that they mostly and commonly use the following debt instrument:

- store/retail card

A marginally higher proportion of consumers in the ***age group 22 to 34*** indicated that they mostly and commonly use the following debt instruments:

- store/retail card
- loan from family/friends

Consumers in the ***age group 35 to 44*** indicated a relatively higher common usage of the following debt instruments:

- store/retail card
- car finance
- credit from a furniture store
- home loan/mortgage
- credit card

It is worth noting that consumers in the ***age group 45 to 54*** have almost similar debt-instrument usage levels as the above-mentioned group of consumers, where at least two out of ten consumers use mainly the following instruments:

- store/retail card
- credit from a furniture store
- loan from family/friends
- car finance
- credit card

Consumers in the the ***age group 55 to 59*** appeared to have a relatively lower debt-instrument usage than the younger age groups. This is shown by the fact that at least a

third of the consumers in this category indicated that the debt instruments the most commonly used by them are as follows:

- store/retail card
- loan from family/friends

The oldest category, namely consumers aged **60 and older**, also had almost similar debt-instrument levels as the the group above. This is shown by the fact that at least a quarter of the consumers recorded a relatively higher usage of the following debt instruments:

- store/retail card
- loan from family/friends

Debt instruments commonly used by most consumers **across all the age-group categories** are:

- store/retail cards

In summary, the analysis of debt-instrument usage shows that consumers' demographic attributes impact on the usage level of debt instruments. It emerged that the type of debt instrument which appears to be the most commonly used by all consumers, regardless of their demographic attributes, are:

- store/retail cards

4.5 CONSUMER SAVINGS-TOOL USAGE ACCORDING TO DEMOGRAPHIC ATTRIBUTES

This section contains a detailed discussion of the findings from the analysis of consumer **savings-tool** usage according to demographic attributes which include the

following: gender, employment status, level of education, and age group. The demographic attributes will still be analysed against the consumer usage of 16 savings tools, as depicted in the regression model.

Similarly, the results are also analysed by presenting the *n* values with a relative corresponding proportion regarding the respondents' usage of savings tools in a tabular format (see the appendix).

4.5.1 CONSUMER SAVINGS-TOOL USAGE ACCORDING TO GENDER

Consumer savings-tool usage according to gender (i.e. males and females) is shown in table 4.10.

**TABLE 4.10
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO GENDER**

Savings tools	Gender											
	Female				Male				Total			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzansi	89	22	316	78	108	23.2	358	76.8	197	22.6	674	77.4
Savings account –other than Mzansi	244	60.4	160	44.6	261	56.7	199	55.4	505	58.4	359	41.6
Savings account/investment account (fixed-term)	110	27.6	289	72.4	105	23.2	348	76.8	215	25.2	637	74.8
Unit trusts	27	6.9	365	93.1	18	4	436	96	45	5.3	801	94.7
Shares (JSE-listed companies)	53	13.4	342	86.6	33	7.2	423	92.8	86	10.1	765	89.9
Endowment/savings/retirement-annuity policy	80	20.1	318	79.9	77	16.8	381	83.2	157	18.3	699	81.7
Funeral insurance	177	44.5	221	55.5	199	43.4	260	56.6	376	43.9	481	56.1
Life-cover policy	114	29	279	71	120	26.3	337	73.7	234	27.5	616	72.5
Medical insurance	69	17.2	332	82.8	78	17	382	83	147	17.1	714	82.9
Medical fund	127	31.3	279	68.7	138	30.1	321	69.9	265	30.6	600	69.4
Stokvel/burial society	129	31.9	276	68.1	138	29.9	323	70.1	267	30.8	599	69.2
Retirement policy/pension fund	120	30.1	279	69.9	135	29.7	319	70.3	255	29.9	598	70.1
Education plan/policy	41	10.1	363	89.9	38	8.2	425	91.8	79	9.1	788	90.9
Saving money at home	68	16.4	333	80.2	80	16.9	385	81.6	148	16.7	718	80.9
Giving money to a person whom I can trust	51	12.3	347	83.6	61	12.9	399	84.5	112	12.6	746	84.1
Government retail bonds	5	1.2	397	95.7	12	2.5	452	95.8	17	1.9	849	95.7

The analysis of savings-tool usage according to gender shows that a slightly varied proportion of males and females use similar savings tools, although studies show that because men generally have a higher financial literacy and education than women, they are more likely to save more and have a higher risk tolerance than women. It was also found that education played a significant role in the higher likelihood of men saving in the short term, and saving more regularly, than women.

There is a relatively higher usage of savings accounts other than Mzansi and funeral-insurance savings tools among women than men, although Pearson Chi-Square analysis shows that there is no statistically significant difference (i.e. Sig. 0.276 for a savings account other than Mzansi and Sig. 0.742 for funeral insurance) in usage of the savings tools between males and females. The Pearson Chi-Square statistic is significant at the 0.05 level.

The analysis of the findings shows that at least a third of both males and females indicated that the savings instruments the most commonly used by them are

- savings account other than Mzansi
- funeral insurance
- stokvel/burial society
- medical fund
- retirement policy/pension fund

The savings tool the most commonly and frequently used by males and females was

- a savings account other than Mzansi

4.5.2 CONSUMER SAVINGS-TOOL USAGE ACCORDING TO EMPLOYMENT STATUS

Table 4.11 contains the analysis of consumer savings-tool usage according to employment status. The employment statuses of consumers who made use of savings tools are also clustered into five categories, namely self-employed, full-time- employed, part-time employed, unemployed, and not available for employment.

TABLE 4.11
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO EMPLOYMENT STATUS

Savings tools	Employment status											
	Self-employed				Full-time employed				Part-time employed			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	N	%	n	%
Savings account – Mzansi	14	22.2	49	77.8	63	24.6	193	75.4	21	47.7	23	52.3
Savings account other than Mzansi	38	61.3	24	38.7	183	71.8	72	28.2	22	50	22	50
Savings account/investment account (fixed-term)	21	34.4	40	65.6	91	36.1	161	63.9	7	15.6	38	84.4
Unit trusts	6	10.2	53	89.8	14	5.6	236	94.4	2	4.4	43	95.6
Shares (JSE-listed companies)	9	15	51	85	35	13.9	216	86.1	2	4.4	43	95.6
Endowment/savings/retirement-annuity policy	16	26.2	45	73.8	74	29.2	179	70.8	3	6.7	42	93.3
Funeral insurance	29	48.3	31	51.7	150	59.1	104	40.9	13	28.9	32	71.1
Life-cover policy	21	35	39	65	115	46.2	134	53.8	9	20	36	80
Medical insurance	13	21	49	79	67	26.6	185	73.4	4	8.9	41	91.1
Medical fund	15	24.2	47	75.8	119	46.7	136	53.3	9	20	36	80
Stokvel/burial society	15	24.2	47	74.8	82	32.4	171	67.6	8	17.8	37	82.2
Retirement policy/pension fund	18	30	42	70	115	46.2	134	53.8	9	20.5	35	79.5
Education plan/policy	9	14.5	53	85.5	49	19.2	206	80.8	2	4.4	43	95.6
Saving money at home	6	9.5	54	85.7	48	18.3	207	78.7	9	19.6	36	78.3
Giving money to a person whom I can trust	13	20.6	47	74.6	41	15.6	212	80.6	6	13	38	82.6
Government retail bonds	0	0	61	96.8	7	2.7	249	94.7	2	4.3	44	95.7

TABLE 4.11
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO EMPLOYMENT STATUS

Continued

Savings tools	Employment status											
	Unemployed				Not available for employment				Total			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzansi	53	21.6	192	78.4	46	17.5	217	82.5	197	22.6	674	77.4
Savings account other than Mzansi	105	43.2	138	56.8	157	60.4	103	39.6	505	58.4	359	41.6
Savings account/investment account (fixed-term)	41	17.2	198	82.8	55	21.6	200	78.4	215	25.2	637	74.8
Unit trusts	12	5	229	95	11	4.4	240	95.6	45	5.3	801	94.7
Shares (JSE-listed companies)	8	3.3	234	96.7	32	12.6	221	87.4	86	10.1	765	89.9
Endowment/savings/retirement-annuity policy	21	8.8	219	91.3	43	16.7	214	83.3	157	18.3	699	81.7
Funeral insurance	79	32.6	163	67.4	105	41	151	59	376	43.9	376	43.9
Life-cover policy	41	16.9	202	83.1	48	19	205	81	234	27.5	616	72.5
Medical insurance	26	10.7	217	89.3	37	14.3	222	85.7	147	17	714	82.9
Medical fund	35	14.4	208	85.6	87	33.5	173	66.5	265	30.6	600	69.4
Stokvel/burial society	57	23.4	187	76.6	105	40.1	157	59.9	267	30.8	599	69.2
Retirement policy/pension fund	35	14.5	207	85.5	78	30.2	180	69.8	255	29.9	598	70.1
Education plan/policy	10	4.1	234	95.9	9	3.4	252	96.6	79	9.1	788	90.9
Saving money at home	49	19.8	195	78.9	36	13.4	226	84.3	148	16.7	718	80.9
Giving money to a person whom I can trust	29	11.7	209	84.6	23	8.6	240	89.6	112	12.6	746	84.1
Government retail bonds	5	2	237	96	3	1.1	258	96.3	17	1.9	849	95.7

Findings from the analysis of consumer savings-tool usage according to employment show that employment status has more impact on savings-tool usage. The literature shows that income is regarded as the main driving force behind saving. A study carried out by Nguabanchong (2004) shows that household savings are positively affected by an increase in consumer income.

Relatively fewer **self-employed** consumers than other categories such as full-time-employed consumers appear to use savings tools. At least two out of ten self-employed consumers use the following savings tools:

- savings account other than Mzansi
- funeral insurance
- savings account/investment account (fixed-term)
- life-cover policy
- retirement policy/pension fund

Full-time-employed consumers indicated a relatively higher level in savings-tool usage than other employment categories. This is evident from the fact that more than a third indicated that they use mainly the following savings tools which are coincidentally similar to the ones used mostly by self-employed consumers, except for medical funds:

- savings account other than Mzansi
- funeral insurance
- medical fund
- life-cover policy
- retirement policy/pension fund
- savings account/investment account (fixed-term)

Part-time-employed consumers represent the smallest proportion of the five employment categories in terms of savings-tool usage. This is shown by the fact that just over a quarter of these consumers utilise only three savings tools, namely

- savings account other than Mzansi
- savings account – Mzansi
- funeral insurance

Logically, it would be anticipated that a relatively lower proportion of **unemployed** consumers would use fewer savings tools than employed consumers, but, paradoxically, it appears as though there are proportionally more consumers in this category who make use of more savings tools than consumers who are part-time employed. Unemployed consumers could have access to sources of income such as family members - for instance, an employed husband could be a source of income for his unemployed wife and family. This contention is clearly confirmed by the fact that unemployed consumers indicated that their most commonly and frequently used savings tools are as follows:

- stokvel/burial society
- savings account – Mzansi
- savings account other than Mzansi
- funeral insurance

Also it would logically be expected that consumers who are **unavailable for employment** would use fewer savings tools than their employed counterparts. Ironically, consumers who are unavailable for employment recorded a relatively higher savings-tool usage than part-time-employed and self-employed-consumers. This is shown by the fact that a relatively higher number of consumers who are unavailable for employment indicated that their most commonly used savings tools include the following:

- savings account other than Mzansi: 60.4%
- funeral insurance: 41%
- stokvel/burial society: 40.1%
- medical fund: 33.5%
- retirement policy/pension fund: 30.2%

The most commonly and frequently used savings tool across all the employment categories is

- a savings account other than Mzansi

4.5.3 CONSUMER SAVINGS-TOOL USAGE ACCORDING TO THE LEVEL OF EDUCATION

Table 4.12 contains the analysis of consumer savings-tool usage according to consumers' level of education.

TABLE 4.12
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO THE LEVEL OF EDUCATION

Savings tools	Level of education											
	No schooling				Grade 1 to 7				Grade 8 to 11			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzansi	23	23.2	76	76.8	32	18.6	140	81.4	40	25.8	115	74.2
Savings account other than Mzansi	39	40.2	58	59.8	86	50.3	85	49.7	84	54.9	69	45.1
Savings account/investment account (fixed-term)	16	16.5	81	83.5	19	11.3	149	88.7	25	16.6	126	83.4
Unit trusts	1	1	98	99	3	1.8	164	98.2	3	2	148	98
Shares (JSE-listed companies)	8	8.3	88	91.7	7	4.1	163	95.9	9	5.9	144	94.1
Endowment/savings/retirement-annuity policy	9	9.2	89	90.8	7	4.1	162	95.9	19	12.5	133	87.5
Funeral insurance	34	34.3	65	65.7	49	28.8	121	71.2	50	33.1	101	66.9
Life-cover policy	9	9.1	90	90.9	24	14.2	145	85.8	28	18.7	122	81.3
Medical insurance	5	5	95	95	8	4.7	162	95.3	20	13.1	133	86.9
Medical fund	20	20.4	78	79.6	23	13.5	147	86.5	33	21.4	121	78.6
Stokvel/burial society	34	34.3	65	65.7	69	40.1	103	59.9	43	27.9	111	72.1
Retirement policy/pension fund	18	18.6	79	81.4	24	14	147	86	34	22.5	117	77.5
Education plan/policy	3	3	96	97	4	2.3	167	97.7	9	5.9	143	94.1
Saving money at home	19	18.8	81	80.2	34	19.5	136	78.2	23	14.6	130	82.3
Giving money to a person whom I can trust	18	17.8	80	79.2	13	7.5	158	90.8	20	12.7	133	84.2
Government retail bonds	0	0	99	98	1	0.6	171	98.3	3	1.9	149	94.3

TABLE 4.12

CONSUMER SAVINGS-TOOL USAGE ACCORDING TO THE LEVEL OF EDUCATION

Continued

Savings tools	Level of education															
	Matric				Postmatric qualification				Postgraduate qualification				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzansi	60	25	180	75	38	21.3	140	78.7	4	14.8	23	85.2	197	22.6	674	77.4
Savings account other than Mzansi	149	62.6	89	45.1	123	69.1	55	30.9	24	88.9	3	11.1	505	58.4	359	41.6
Savings account/investment account (fixed- term)	70	29.9	164	70.1	74	42.3	101	57.7	11	40.7	16	59.3	215	25.2	637	74.8
Unit trusts	16	6.9	216	93.1	18	10.5	154	89.5	4	16	21	84	45	5.3	801	94.7
Shares (JSE- listed companies)	22	9.5	209	90.5	35	20.1	139	79.9	5	18.5	22	81.5	86	10.1	765	89.9
Endowment/savings/retirement- annuity policy	52	22.2	182	77.8	60	34.1	116	65.9	10	37	17	63	157	18.3	699	81.7
Funeral insurance	117	49.8	118	50.2	108	61.7	67	38.3	18	66.7	9	33.3	376	43.9	481	56.1
Life-cover policy	61	26.5	169	73.5	93	53.1	82	46.9	19	70.4	8	29.6	234	27.5	616	72.5
Medical insurance	41	17.4	195	82.6	58	33.1	117	66.9	15	55.6	12	44.4	147	17.1	714	82.9
Medical fund	75	31.5	163	68.5	100	56.2	78	43.8	14	51.9	13	48.1	265	30.6	600	69.4
Stokvel/burial society	69	28.9	170	71.1	48	27.4	127	72.6	4	14.8	23	85.2	267	30.8	599	69.2
Retirement policy/pension fund	83	35.8	149	64.2	80	45.7	95	54.3	16	59.3	11	40.7	255	29.9	598	70.1
Education plan/policy	19	7.9	222	92.1	37	20.9	140	79.1	7	25.9	20	74.1	79	9.1	788	90.9
Saving money at home	46	18.6	193	78.1	21	11.7	156	86.7	5	18.5	22	81.5	148	16.7	718	80.9
Giving money to a person whom I can trust	36	14.6	201	81.4	20	11.1	152	84.4	5	18.5	22	81.5	112	12.6	746	84.1
Government retail bonds	7	2.8	233	94.3	5	2.8	171	95	1	3.7	26	96.3	17	1.9	849	95.7

Table 4.12 shows that the higher the level of education of the consumer, the more savings tools he or she uses. The impact of education on saving is illustrated by a number of studies which show that the level of saving is likely to be influenced by the individual's level of education, whereby schooling is positively related to saving because of the increased knowledge gained, which also influences the discipline to save (Hyun Cho, 2009).

The above is evident from the fact that a relatively lower proportion of consumers with no schooling, Grade 1 to 7, and Grade 8 to 11 make use of savings tools than other consumers with higher levels of education.

The savings tools that are most frequently and commonly used by consumers with **no schooling** include the following:

- savings account other than Mzansi
- funeral insurance
- stokvel/burial society

Also, the saving tools that are most commonly used by consumers with a **Grade 1 to 7** qualification include the following:

- savings account other than Mzansi
- stokvel/burial society
- funeral insurance

A relatively higher savings-tool usage was recorded by consumers with a **Grade 8 to 11** qualification, whose most frequently and commonly used savings tools included the following:

- savings account other than Mzansi
- funeral insurance
- stokvel/burial society
- savings account – Mzansi

Consumers with a **matric** qualification indicated a relatively higher savings-tool usage than consumers with a level of education lower than matric. Their most commonly and frequently used savings tools were recorded as follows:

- savings account other than Mzansi
- savings account/investment account (fixed-term)
- funeral insurance
- medical fund

- retirement policy/pension fund

The savings tools the most commonly and frequently used by consumers with a **postmatric** qualification are similar to those of consumers with a postgraduate qualification, namely

- savings account other than Mzansi
- funeral insurance
- life-cover policy
- medical fund
- retirement policy/pension fund

There appears to be a relatively lower proportion of consumers with a **postgraduate** qualification who use the following common savings tools:

- savings account other than Mzansi
- funeral insurance
- life-cover policy
- medical insurance
- retirement policy/pension fund

Consumers with **matric and higher** levels of education indicated that their most commonly and frequently used savings tools include the following:

- savings account other than Mzansi
- funeral insurance
- medical insurance

Overall, the savings-tool usage according to level of education shows that the most commonly and frequently used savings tools across **all the levels of education** include the following:

- savings account other than Mzanzi
- funeral insurance

4.5.4 CONSUMER SAVINGS-TOOL USAGE ACCORDING TO AGE

Consumer savings-tool usage according to age is contained in table 4.13. Similarly as in the case of debt-instrument usage, consumers who use savings tools are clustered into the following six age categories: younger than 21, 22 to 34, 35 to 44, 45 to 54, 55 to 59, and 60+.

Consumer savings-tool usage is notably higher in the age bracket of 35 to 44, and then begins to decline in the age category of 55 and older. This finding is further espoused by Kotzé (2006) who maintains that with age people start realise that they are getting closer to retirement and they increase their savings.

**TABLE 4.13
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO AGE**

Savings tools	Age category											
	Younger than 21				22-34				35-44			
	Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzanzi	12	13.6	76	86.4	32	23.7	103	76.3	45	29.2	109	70.8
Savings account other than Mzanzi	52	59.1	36	40.9	60	44.8	74	55.2	100	66.2	51	33.8
Savings account/investment account (fixed-term)	18	20.7	69	79.3	25	19.1	106	80.9	60	39.7	91	60.3
Unit trusts	4	4.7	81	95.3	2	1.5	132	98.5	12	8.3	133	91.7
Shares (JSE-listed companies)	15	17.2	72	82.8	3	2.2	132	97.8	15	10.2	132	89.8
Endowment/savings/retirement -annuity policy	15	16.9	74	83.1	18	13.5	115	86.5	40	26.7	110	73.3
Funeral insurance	44	50.6	43	49.4	49	36.3	86	63.7	81	54.4	68	45.6
Life=cover policy	11	12.8	75	87.2	33	24.6	101	75.4	60	40.5	88	59.5
Medical insurance	9	10.2	79	89.8	24	17.9	110	82.1	30	20.1	119	79.9
Medical fund	39	43.8	50	56.2	31	23.1	103	76.9	60	39.7	91	60.3
Stokvel/burial society	26	29.5	62	70.5	28	20.9	106	79.1	50	33.6	99	66.4
Retirement policy/pension fund	21	24.4	65	75.6	32	24.1	101	75.9	49	32.9	100	67.1
Education plan/policy	5	5.7	83	94.3	8	5.9	127	94.1	33	22	117	78
Saving money at home	7	7.6	81	88	22	15.9	112	81	37	23.7	115	73.7
Giving money to a person whom I can trust	6	6.5	82	89.1	19	13.8	112	81.2	22	14.1	127	81.4
Government retail bonds	2	2.2	86	93.5	4	2.9	132	95.7	6	3.8	144	92.3

TABLE 4.13
CONSUMER SAVINGS-TOOL USAGE ACCORDING TO AGE

Continued

Savings tools	Age category															
	45-54				55-59				60+				Total			
	Yes		No		Yes		No		Yes		No		Yes		No	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Savings account – Mzansi	40	23.7	129	76.3	24	29.6	57	70.4	44	18	200	82	197	22.6	674	77.4
Savings account other than Mzansi	111	65.7	58	34.3	43	53.8	37	46.3	139	57.4	103	42.6	505	58.4	359	41.6
Savings account/investment account (fixed- term)	37	22.2	130	77.8	17	21.3	63	78.8	58	24.6	178	75.4	215	25.2	637	74.8
Unit trusts	10	6	157	94	4	5	76	95	13	5.5	222	94.5	45	5.3	801	94.7
Shares (JSE- listed companies)	17	10.2	150	89.8	9	11.3	71	88.8	27	11.5	208	88.5	86	10.1	765	89.9
Endowment/savings/retirement- annuity policy	39	23.1	130	76.9	9	11.4	70	88.6	36	15.3	200	84.7	157	18.3	699	81.7
Funeral insurance	82	48.8	86	51.2	34	43	45	57	86	36	153	64	376	43.9	481	56.1
Life-cover policy	58	34.9	108	65.1	23	29.5	55	70.5	49	20.6	189	79.4	234	27.5	616	72.5
Medical insurance	39	23.1	130	76.9	14	17.5	66	82.5	31	12.9	210	87.1	147	17.1	714	82.9
Medical fund	56	32.9	114	67.1	22	27.5	58	72.5	57	23.7	184	76.3	265	30.6	600	69.4
Stokvel/burial society	55	32.4	115	67.6	26	32.5	54	67.5	82	33.5	163	66.5	267	30.8	599	69.2
Retirement policy/pension fund	65	39.4	100	60.6	21	26.6	58	73.4	67	27.8	174	72.2	255	29.9	598	70.1
Education plan/policy	21	12.4	149	87.6	5	6.2	76	93.8	7	2.9	236	97.1	79	9.1	788	90.9
Saving money at home	20	11.6	149	86.1	16	19.5	65	79.3	46	18.7	196	79.7	148	16.7	718	80.9
Giving money to a person whom I can trust	24	13.9	144	83.2	12	14.6	69	84.1	29	11.8	212	86.2	112	12.6	746	84.1
Government retail bonds	3	1.7	166	96	0	0	81	98.8	2	0.8	240	97.6	17	1.9	849	95.7

A relatively lower proportion of consumers in the age categories ranging from **21 and younger to 34** recorded a lower savings-tool usage than consumers in the other (older) age categories.

More specifically, just more than a quarter to more than half of the consumers **younger than 21** indicated that the savings tools that the most frequently used by them include the following:

- savings account other than Mzansi
- funeral insurance
- medical fund

Consumers in the **age category of 22 to 34** appear to use similar types of savings tool than consumers in the age category of 21 and younger. This is shown by the savings tools that are most frequently and commonly used by them, namely:

- savings account other than Mzansi
- funeral insurance
- medical fund

A relatively higher proportion of consumers in the **age category of 35 to 44** indicated that the savings tools the most commonly and frequently used by them include the following:

- savings account other than Mzansi
- funeral insurance
- life-cover policy
- savings account/investment account (fixed-term)
- medical fund
- stokvel/burial society

Likewise, consumers in the **age category of 45 to 54** show a relatively higher savings-tool usage than consumers in the age category of 35 to 44, where the most commonly and frequently used tools included the following:

- savings account other than Mzansi
- funeral insurance
- retirement policy/pension fund
- life-cover policy
- medical fund
- stokvel/burial society

There is a decline in the savings-tool usage of consumers in the **age category of 55 to 59**, where a relatively lower proportion of consumers indicated that they use the following savings tools:

- savings account other than Mzansi
- funeral insurance
- stokvel/burial society

Notably, a relatively higher number of consumers in the **age category of 60 and older** use similar savings tools than consumers in the age category of 55 to 59, namely:

- savings account other than Mzansi
- funeral insurance
- stokvel/burial society

The most commonly and frequently used savings tools across all the consumer **age categories** include the following:

- savings account other than Mzansi
- funeral insurance

The findings also showed that the savings tools the most commonly and frequently used by consumers across the four main demographic attributes include the following:

- savings account other than Mzansi
- funeral insurance

This finding also coincides with the literature on savings-tool usage as shown by SAARF: AMPS (2007-2011), where savings account and funeral insurance constituted relatively larger proportions of savings tools used by the consumers.

4.6 DISCUSSION OF THE FINDINGS OF THE ANALYSIS OF THE LOGISTIC-REGRESSION MODEL AND THE TESTING OF THE SUBHYPOTHESES

The research model presented in chapter 3 (see fig. 3.1) provides the framework of and the basis for the application of the logistic-regression analysis for addressing the research hypothesis where savings tools represent the dependent variables and debt instruments represent the independent variables.

Therefore, the application of the model entails an analysis of the logistic-regression statistical tests by determining the impact of predictor variables which are explained in terms of the odds ratios. That includes determining the maximum-likelihood estimation in the analysis which is computed by transforming the dependent variable into a logit variable. This process allows for an estimation of the odds of a certain event occurring (i.e. estimating the likelihood of savings-tool usage by consumers engaging in the usage of certain debt instruments).

4.6.1 GOODNESS-OF-FIT TEST OF THE MODEL AND THE MAIN HYPOTHESIS

The statistical estimation technique used in maximising the likelihood to predict that the event will occur in the logistic regression is subject to assessment of the model fit. This process involves assessment of the appropriateness of the model fit for predictive success where the likelihood value is given.

One of the recommended tests for an overall fit of the binary logistic-regression model is the Hosmer-Lemeshow Goodness-of-Fit test which applies the likelihood-ratio test. Peng et al. (2002) further affirm that the goodness-of-fit statistics assess the fit of a logistic model against actual outcomes (i.e. the likelihood of consumers using certain savings tools). This will include using the Wald statistic technique to test the significance of individual independent variables (regression coefficients). The predictive measurement of the likelihood is determined by the level of significance of a variable in question. A value of the significant variable **greater than 0.05** is indicative of a **well-**

fitting model, and a value of **less than 0.05** denotes an inappropriate model fit for predicting the statistically significant relationship between the usage of debt instruments and savings tools.

The varied levels of significance of the variables are computed according to the Hosmer-Lemeshow Goodness-of-Fit test to determine the appropriateness of the model fit for predicting the statistical significance of the relationship between the debt-instrument and savings- tool usage depicted in table 4.14.

TABLE 4.14
HOSMER- LEMESHOW GOODNESS-OF-FIT TEST

Savings tools	Sig.
Savings account – Mzansi	0.867*
Savings account other than Mzansi	0.781*
Savings account/investment account (fixed-term)	0.013
Unit trusts	0.673*
Shares (JSE-listed companies)	0.578*
Endowment/savings/retirement-annuity policy	0.383*
Funeral insurance	0.668*
Life-cover policy	0.006
Medical insurance	0.177*
Medical fund	0.024
Stokvel/burial society	0.772*
Retirement policy/pension fund	0.069*
Education plan/policy	0.197*
Saving money at home	0.183*
Giving money to a person whom I can trust	0.001
Government retail bonds	0.900*

* Significance ≥ 0.05 level

The results of the Hosmer-Lemeshow Goodness-of-Fit test show that there are 12 savings tools that are statistically significant (i.e. that have values greater than 0.05) and also indicate the appropriateness of the model fit to reject the main null hypothesis.

H_0 ; There is no statistically significant relationship between debt instrument and savings-instrument usage.

H_1 : There is a statistically significant relationship between debt- instrument and savings-instrument usage.

Decision rule

The Hosmer-Lemeshow Goodness-of-Fit test meets the decision-rule criteria for rejecting the main null hypothesis H_0 where 12 of the 16 savings tools have a statistically significant relationship with debt instruments (values greater than 0.05). These savings tools are clustered into six types of savings tools that provide the basis for the decision rule:

- If $n_{hs} \geq 4$, then the savings tools have overall statistically significant relationship with the debt instruments.
- If $n_{hs} < 4$, then the savings tools do not have overall statistically significant relationship with the debt instruments.

4.6.2 REGRESSION BETA (β) COEFFICIENTS

The β coefficients are estimated coefficients which are the actual measures of the changes in the ratio of the probabilities referred to as the odds ratios. The coefficient may appear positive or negative, where a positive value increases the predicted probability and a negative value decreases the predicted probability.

A higher predicted probability of occurrence is denoted by a positive coefficient which has to be greater than 1, implying an increase in the odds ratio. The zero values are indicative of no change in the odds, meaning that the probability of the event occurring is reduced (Hair et al., 1998).

The analysis of the β coefficients shows the effect on the dependent variables (savings tools), which are associated with one unit of change in the independent variables (debt instruments). These changes in the variables are in the standard deviations, therefore the β coefficients are used to construct the prediction equation of the independent variables to the dependent variables.

The strongest and weakest predictors are identified by the value of the independent variables - for instance, a variable with the highest values (where an independent variable is greater than 1) depicts the strongest predictor of the dependent variables, and a weak predictor is depicted by a variable with a value of less than 1.

4.6.3 EXPONENTS OF THE BETA (β) ODDS RATIOS

The exponents of the β odds ratios [$\text{Exp}(\beta)$] are the preferred effect-size measures in the logistic regression when comparing predictor variables. The odds ratio is the factor by which the independent variable (debt instrument) increases or decreases the log odds of the dependent variable and also provides the standard way of reporting the central results of logistic regression.

When analysing the $\text{Exp}(\beta)$, the following principles apply:

- An $\text{Exp}(\beta)$ **equal to** 1 implies that an odd ratio corresponding to an explanatory variable does **not affect** the dependent variable, denoting an independent variable which has **no effect**.
- An $\text{Exp}(\beta)$ **greater than** 1 means that the independent variable increases the logit, and therefore **increases the odds** (event).
- An $\text{Exp}(\beta)$ **less than** 1.0 implies that the independent variable decreases the logit and decreases the odds (event).

4.6.4 SIGNIFICANCE OF REGRESSION COEFFICIENTS

Testing the significance of the coefficients in the logistic regression entails testing the hypothesis that a coefficient is different from zero, where a zero implies that the odds ratio does not change and the probability is not affected, and therefore is reduced (Hair et al., 1998).

Independent variables with values lower than 0.1 are indicative of significant coefficients denoting good predictors of the relationship between debt- instrument and savings-tool usage. The application of this principle to our model implies that debt instruments with values lower than 0.1 have a higher predictive level of the significant relationship between consumer debt-instrument and savings-tool usage.

4.7 ANALYSIS OF THE REGRESSION β -COEFFICIENTS AND THE EXPONENTS OF THE BETA-ODDS RATIOS, AND THE SIGNIFICANCE OF THE COEFFICIENTS AND THE SUBHYPOTHESES TESTS

This section contains the analysis of the values of the regression β -coefficients, the size of the exponents of the β -odds ratios of the likelihood in the regression model in terms of the predicted probability, and the regression coefficients' level of significance with regard to the usage of savings tools by consumers who make use of debt instruments. The regression coefficients' level of significance is used for determining whether each of the 13 null sub-hypotheses' test regarding the significance of the relationship between the 13 debt instruments and the 16 savings tools should be accepted or rejected according to the decision-rule criteria.

This means that each output table that follows presents the β -coefficients, exponents of the β -odds ratios' effect and significance of the coefficients on the 16 savings tools as dependent variables and the 13 debt instruments as independent variables, where

β -coefficients with a **higher predicted probability** have positive coefficients with values greater than 1

- exponents of the β -odds ratios with a **higher effect-size measure** for predicting the likelihood have $\text{Exp}(\beta)$ s also with values greater than 1, and
- variables with a **higher significant predictive effect** on the relationship have values less than 0.05.

4.7.1 CREDIT-CARD USAGE

Subhypothesis

H_{01} : There is no statistically significant relationship between credit-card and savings-instrument usage.

H_2 : There is a statistically significant relationship between credit-card and savings-instrument usage.

Table 4.15 shows that there are seven savings tools (i.e. savings account other than Mzansi, savings account/fixed-term investment account, unit trusts, shares such as in JSE-listed companies, life-cover policy, medical fund and stokvel/burial society that are statistically significant to credit cards. This outcome complies with the decision-rule criteria to reject the null subhypothesis H_{01} . This implies that there is a statistically significant relationship between credit-card and savings-instrument usage.

TABLE 4.15
CREDIT CARDS

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzanzi	0.226	1.305	0.251
Savings account other than Mzanzi	0.698	2.010	0.002***
Savings account/investment account (fixed-term)	0.595	1.814	0.006***
Unit trusts	1.770	5.869	0.000***
Shares (JSE-listed companies)	1.085	2.960	0.000***
Endowment/savings/retirement-annuity policy	0.358	1.430	0.139
Funeral insurance	0.214	1.238	0.308
Life-cover policy	0.466	1.593	0.040**
Medical insurance	0.393	1.481	0.110
Medical fund	0.975	2.652	0.000***
Stokvel/burial society	-0.638	0.528	0.010**
Retirement policy/pension fund	0.126	1.132	0.564
Education plan/policy	-0.082	0.922	0.803
Saving money at home	-0.152	0.859	0.569
Giving money to a person whom I can trust	0.061	1.063	0.830
Government retail bonds	0.073	1.076	0.912

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding shows the predictive likelihood that consumers who use credit cards could use savings tools to increase their savings levels. Good financial-management skills and planning may contribute to consumers minimising debt- servicing costs stemming from higher spending on credit cards. This could increase the funds available to consumers which could be deposited into the savings tools across the six savings categories to increase savings levels.

The literature also shows that credit cards are among the debt instruments the most commonly and frequently used by consumers. This is also evident from SAARF: AMPS (2007-2011), which shows that in 2011 credit cards constituted over 18% of the credit instruments mainly used by consumers, with an increase of 2.9% from 2010 to 2011.

The higher usage of credit cards by consumers results from an easy access to credit cards, so that an individual may possess more than one credit card, which may lead to the temptation of unnecessary spending. It is precisely for this reason that consumers should be cautioned against excessive usage of credit cards and be encouraged to increase their savings. It is advisable that credit cards be used for good reasons, such as in emergencies where there may be no cash readily available for such purposes - otherwise the usage of credit to finance unnecessary spending constitutes a bad debt.

4.7.2 OVERDRAFT ON A BANK ACCOUNT

Subhypothesis

H_{03} : There is no statistically significant relationship between the usage of an overdraft on a bank account and the usage of savings instruments.

H_4 : There is a statistically significant relationship between the usage of an overdraft on a bank account and the usage of savings instruments.

There is only one savings tool (i.e. savings account/investment annuity policy) which has a statistically significant relationship with an overdraft on a bank account. It is clear that this outcome as presented in table 4.16 does not comply with the decision rule to reject the null hypothesis, implying that there is no statistically significant relationship between the usage of an overdraft on a bank account and the usage of savings instruments - therefore the null subhypothesis H_{03} is accepted.

TABLE 4.16
OVERDRAFT ON A BANK ACCOUNT

Savings tools	β- coefficient	Exp(β)^t	Sig
Savings account – Mzanzi	-0.330	0.719	0.367
Savings account other than Mzanzi	-0.123	0.884	0.744
Savings account/investment account (fixed-term)	0.550	1.733	0.092*
Unit trusts	0.216	1.242	0.636
Shares (JSE-listed companies)	0.061	1.063	0.879
Endowment/savings/retirement-annuity policy	-0.203	0.816	0.564
Funeral insurance	-0.015	0.985	0.966
Life-cover policy	0.468	1.596	0.183
Medical insurance	0.118	1.125	0.742
Medical fund	-0.026	0.974	0.937
Stokvel/burial society	0.277	1.320	0.484
Retirement policy/pension fund	0.040	1.041	0.905
Education plan/policy	0.680	1.974	0.107
Saving money at home	-0.496	0.609	0.280
Giving money to a person whom I can trust	0.063	1.065	0.879
Government retail bonds	-1.021	0.360	0.387

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding may be indicative of the likelihood that consumers who make use of bank-overdraft facilities are likely to have low savings levels. This may be due to a number of factors, including higher debt-servicing costs associated with higher bank-overdraft facilities and other debt that the consumers may have incurred. Consumers are likely to use overdraft facilities when their income is insufficient to finance their expenditure and in emergencies that may require cash. Therefore, consumers could use overdrafts on bank accounts to supplement their income and increase their available funds to service their debt and finance expenditure. It is for this reason that consumers should spend within their limits and start saving - especially in short- to medium-term savings tools for their immediate needs, and in long-term savings tools to ensure their future financial security.

4.7.3 USAGE OF A FORMAL PERSONAL LOAN FROM A FINANCIAL INSTITUTION SUCH AS A BANK

Subhypothesis

H_{05} There is no statistically significant relationship between the usage of a formal personal loan from a financial institution such as a bank and the usage of savings instruments.

H_6 There is a statistically significant relationship between the usage of a formal personal loan from a financial institution such as a bank and the usage of savings instruments.

Table 4.17 shows that there are four savings tools (savings account – Mzansi, unit trusts, endowment/savings/retirement-annuity policy, and education plan/policy) which have a statistically significant relationship with a personal loan from a financial institution such as a bank. These savings tools fall into four of the six savings categories stipulated in the decision rule. This means that the null subhypothesis H_{05} is rejected in favour of the alternative subhypothesis H_6 .

TABLE 4.17
PERSONAL LOAN FROM A FINANCIAL INSTITUTION SUCH AS A BANK

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.602	1.825	0.036**
Savings account other than Mzansi	-0.295	0.745	0.323
Savings account/investment account (fixed- term)	0.269	1.308	0.347
Unit trusts	-0.89	0.411	0.100*
Shares (JSE-listed companies)	-0.391	0.676	0.343
Endowment/savings/retirement-annuity policy	0.738	2.093	0.015**
Funeral insurance	0.396	1.486	0.167
Life-cover policy	0.403	1.496	0.191
Medical insurance	-0.207	0.813	0.537
Medical fund	0.447	1.564	0.120
Stokvel/burial society	0.048	1.049	0.882
Retirement policy/pension fund	0.389	1.475	0.183
Education plan/policy	0.700	2.014	0.043**
Saving money at home	0.360	1.433	0.266
Giving money to a person whom I can trust	0.261	1.298	0.445
Government retail bonds	0.678	1.971	0.384

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding shows that consumers who use personal loans from a financial institution such as a bank are more likely to increase their savings should they have sufficient funds available by reducing their debt-servicing costs resulting from their personal loans and other debt that they may have incurred to finance their spending on expenditure. It is important to note that a personal loan may also constitute a part of the funds available to consumers to finance spending. Consumers who lack financial-management skills tend to spend more than their income and use debt instruments such as personal loans to supplement their income. This puts a strain on consumers' ability to save due to the burden of debt-cost servicing. Cutting back on consumption expenditure should be prioritised and could minimise the usage of debt instruments such as personal loans and could subsequently enable consumers to increase their savings levels.

4.7.4 USAGE OF A HOME LOAN/MORTGAGE

Subhypothesis

H_{07} There is no statistically significant relationship between the usage of a home loan/mortgage and the usage of savings instruments.

H_8 There is a statistically significant relationship between the usage of a home loan/mortgage and the usage of savings instruments.

There are nine savings tools that emerged to have a statistically significant relationship with the usage of a home loan/mortgage, as shown in table 4.18. This outcome clearly complies with the decision rule to reject the null subhypothesis H_{07} , implying that there is a statistically significant relationship between the usage of a home loan/mortgage and the usage of savings instruments.

TABLE 4.18
HOME LOAN/MORTGAGE

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.472	1.604	0.092*
Savings account other than Mzansi	0.154	1.166	0.602
Savings account/investment account (fixed-term)	0.539	1.714	0.040**
Unit trusts	0.714	2.043	0.075*
Shares (JSE-listed companies)	0.179	1.196	0.585
Endowment/savings/retirement-annuity policy	0.811	2.249	0.003***
Funeral insurance	0.042	1.043	0.878
Life-cover policy	0.885	2.424	0.001***
Medical insurance	0.205	1.228	0.479
Medical fund	0.486	1.625	0.066*
Stokvel/burial society	-0.97	0.379	0.005**
Retirement policy/pension fund	0.654	1.922	0.015**
Education plan/policy	-0.312	0.732	0.417
Saving money at home	0.098	1.103	0.775
Giving money to a person whom I can trust	0.593	1.810	0.068*
Government retail bonds	1.170	3.221	0.117

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding shows that with good financial-management skills, consumers who make use of a home loan/mortgage are most likely to save by using numerous savings tools. It should also be noted that due to the magnitude of home loan/mortgage debt which has a relatively larger rand value and constitutes the largest proportion of consumer debt, compared with other debt instruments, this type of debt may take a relatively larger proportion of available funds to be financed, leaving consumers with little funds to save. However, it is interesting to note that the literature shows that a home loan/mortgage constitutes a good debt which is used to invest in an asset that appreciates in value over time.

4.7.5 BORROWING AGAINST A POLICY

Subhypothesis

H_{09} There is no statistically significant relationship between borrowing against a policy and savings-instrument usage.

H_{10} There is a statistically significant relationship between borrowing against a policy and savings-instrument usage.

Table 4.19 shows that savings tools such as a savings account such as Mzanzi, a savings account other than Mzanzi, a stokvel/burial society and saving money at home have a statistically significant relationship with borrowing against a policy. These savings tools constitute only a short- and medium-term type of saving, meaning that they are included in only two of the six savings categories stipulated in the decision rule. Therefore, this outcome does not comply with the decision rule to reject the null subhypothesis H_{09} , implying that there is no statistically significant relationship between borrowing against a policy and savings-instrument usage.

TABLE 4.19
BORROWING AGAINST A POLICY

Savings tools	β- coefficient	Exp(β)_t	Sig
Savings account – Mzansi	1.485	4.414	0.001***
Savings account other than Mzansi	-1.496	0.224	0.001***
Savings account/investment account (fixed-term)	-0.031	0.970	0.945
Unit trusts	0.593	1.809	0.348
Shares (JSE-listed companies)	0.169	1.184	0.764
Endowment/savings/retirement-annuity policy	0.025	1.026	0.957
Funeral insurance	0.395	1.484	0.436
Life-cover policy	-0.005	0.995	0.992
Medical insurance	0.339	1.404	0.474
Medical fund	0.375	1.456	0.411
Stokvel/burial society	-1.583	0.205	0.015**
Retirement policy/pension fund	-0.536	0.585	0.260
Education plan/policy	0.925	2.521	0.065
Saving money at home	1.634	5.126	0.000***
Giving money to a person whom I can trust	0.215	1.239	0.682
Government retail bonds	0.561	1.753	0.598

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding suggests that there is less likelihood of predicting that consumers who borrow against a policy would use savings tools to increase their savings levels. Borrowing against a policy to finance unnecessary spending and to service debt cannot be considered a good practice. This may also adversely (i.e in the form of penalties and charges) affect the returns and dividends that the consumer would get in the long run (i.e. when the policy matures).

This implies that these consumers should be encouraged to curb their spending and incurring debt that may compel them to borrow against their policies.

4.7.6 CAR FINANCE

Subhypothesis

H_{011} There is no statistically significant relationship between the usage of car finance and the usage of savings instruments.

H_{12} There is a statistically significant relationship between the usage of car finance and the usage of savings instruments.

There are three savings tools (i.e. savings account other than Mzansi, medical insurance, and retirement policy/pension fund) which have a statistically significant relationship with the usage of car finance, as depicted in table 4.20. These savings are also included in six savings-tool categories stipulated in the decision rule, implying that this outcome do not conform to the minimum requirement of the decision rule. The null subhypothesis H_{011} is accepted, implying that there is a no statistically significant relationship between the usage of car finance and the usage of savings instruments.

TABLE 4.20
USAGE OF CAR FINANCE

Savings tools	β- coefficient	Exp(β)^t	Sig
Savings account – Mzansi	-0.471	0.624	0.104
Savings account other than Mzansi	0.800	2.226	0.009***
Savings account/investment account (fixed- term)	-0.047	0.954	0.854
Unit trusts	-0.274	0.760	0.494
Shares (JSE-listed companies)	0.193	1.213	0.539
Endowment/savings/retirement-annuity policy	-0.068	0.934	0.799
Funeral insurance	-0.086	0.917	0.745
Life-cover policy	0.063	1.065	0.810
Medical insurance	0.574	1.775	0.033**
Medical fund	0.162	1.176	0.518
Stokvel/burial society	-0.003	0.997	0.991
Retirement policy/pension fund	0.415	1.515	0.098*
Education plan/policy	0.529	1.697	0.135
Saving money at home	-0.122	0.885	0.721
Giving money to a person whom I can trust	-0.226	0.798	0.503
Government retail bonds	-0.629	0.533	0.436

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This outcome shows that there is a less likelihood that consumers who make use of the car-finance debt instrument may increase their savings unless they reduce the debt costs. This could enable them to increase their available funds that they use to deposit into few savings tools.

It is important to note that car finance is a short-term debt which may also be costly to finance, resulting in consumers utilising a larger proportion of their available funds to service the debt.

4.7.7 STUDY/EDUCATION LOAN

Subhypothesis

H_{013} There is no statistically significant relationship between the usage of a study/education loan and the usage of savings tools.

H_{14} There is a statistically significant relationship between the usage of a study/education loan and the usage of savings tools.

Table 4.21 shows that there are six savings tools (i.e. funeral insurance, life-cover policy, medical insurance, stokvel/burial society, retirement policy/pension fund, and education plan/policy) which have a statistically significant relationship with a study/education loan. These savings tools are also included in the six savings categories stipulated in the decision rule, implying that the null subhypothesis H_{013} is rejected in favour of H_{14} , namely that there is a statistically significant relationship between the usage of study/education loans and the usage of savings tools.

TABLE 4.21
STUDY/EDUCATION LOAN

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	-0.507	0.602	0.238
Savings account other than Mzansi	-0.046	0.955	0.907
Savings account/investment account (fixed-term)	0.293	1.341	0.436
Unit trusts	0.532	1.702	0.388
Shares (JSE-listed companies)	0.517	1.676	0.313
Endowment/savings/retirement-annuity policy	0.500	1.717	0.191
Funeral insurance	0.696	2.006	0.083*
Life-cover policy	0.904	2.469	0.028**
Medical insurance	1.136	3.114	0.008***
Medical fund	0.089	1.093	0.823
Stokvel/burial society	0.973	2.646	0.018**
Retirement policy/pension fund	0.958	2.607	0.015**
Education plan/policy	2.094	8.114	0.000***
Saving money at home	-0.068	0.934	0.878
Giving money to person I can trust	-0.386	0.68	0.453
Government retail bonds	-0.585	0.557	0.639

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding shows that consumers with good financial-management skills who make use of education/study loans are likely to increase their savings should their debt level be minimised. The literature shows that an education/study loan is one of the debt instruments which may be considered a good debt due to its long-term implications. That may entail attaining a higher level of education which could provide an opportunity to secure a better job to generate a higher income and to increase funds available to the consumer that may also be used to deposit into savings tools.

4.7.8 BORROWING AGAINST A PENSION FUND

Subhypothesis

H_{015} There is no statistically significant relationship between borrowing against a pension fund and the usage of savings instruments.

H_{16} There is a statistically significant relationship between borrowing against a pension fund and the usage of savings instruments.

There are three savings tools (i.e. life-cover policy, retirement policy/pension fund, and giving money to a person whom I can trust) that have a statistically significant relationship with borrowing against a pension fund, as shown in table 4.22. These savings tools do not meet the minimum requirement of the decision rule, implying in view of this outcome that the null subhypothesis H_{015} is accepted. This means that there is no statistically significant relationship between borrowing against a pension fund and the usage of savings instruments.

TABLE 4.22
BORROWING AGAINST A PENSION FUND

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.556	1.744	0.217
Savings account other than Mzansi	-0.497	0.608	0.265
Savings account/investment account (fixed- term)	0.405	1.500	0.368
Unit trusts	0.663	1.940	0.285
Shares (JSE-listed companies)	-0.253	0.776	0.681
Endowment/savings/retirement-annuity policy	0.633	1.884	0.193
Funeral insurance	0.258	1.295	0.593
Life-cover policy	1.401	4.060	0.005***
Medical insurance	0.510	1.665	0.280
Medical fund	0.261	1.298	0.578
Stokvel/burial society	-0.013	0.987	0.980
Retirement policy/pension fund	1.661	5.266	0.001***
Education plan/policy	-0.653	0.520	0.381
Saving money at home	0.377	1.458	0.458
Giving money to a person whom I can trust	1.392	4.023	0.002***
Government retail bonds	1.260	3.526	0.175

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

The outcome of this model shows that consumers who borrow against a pension fund are likely to increase their savings by using the savings tools indicated in the six savings categories should they minimise their debt levels. Borrowing against a pension fund to finance unnecessary spending may have a detrimental effect on consumers' future financial security. This may result from penalties and other costs which may affect the value of the pension fund in the long run should the consumer be unable to repay the debt due to other financial difficulties.

4.7.9 STORE/RETAIL CARDS

Subhypothesis

H_{017} There is no statistically significant relationship between store/retail- card and savings-instrument usage.

H_{18} There is a statistically significant relationship between store/retail- card and savings-instrument usage.

There are seven savings tools (i.e. savings account other than Mzansi, savings account/investment account, funeral insurance, medical insurance, stokvel/burial society, retirement policy/pension fund, and education plan/policy) which have a statistically significant relationship with store/retail cards, as depicted in table 4.23. This outcome complies with the decision rule to reject the null subhypothesis H_{017} in favour of H_{18} , implying that there is a statistically significant relationship between store/retail-card and savings-instrument usage.

TABLE 4.23
STORE/RETAIL CARD

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.073	1.076	0.727
Savings account other than Mzansi	0.76	2.139	0.000***
Savings account/investment account (fixed- term)	0.435	1.544	0.036**
Unit trusts	-0.462	0.630	0.226
Shares (JSE-listed companies)	-0.420	0.657	0.149
Endowment/savings/retirement-annuity policy	0.119	1.126	0.616
Funeral insurance	0.740	2.097	0.000***
Life-cover policy	0.158	1.171	0.472
Medical insurance	0.484	1.622	0.045**
Medical fund	0.257	1.293	0.211
Stokvel/burial society	0.576	1.779	0.005***
Retirement policy/pension fund	0.418	1.519	0.041**
Education plan/policy	0.794	2.211	0.015**
Saving money at home	0.240	1.271	0.300
Giving money to a person whom I can trust	0.334	1.397	0.192
Government retail bonds	-0.002	0.998	0.998

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

It is very important that consumers are cautioned and advised against the temptation of overspending on these debt facilities, because they lead to indebtedness and an inability to invest in savings tools. The extent to and the rate at which store/retail cards are used by consumers is evident from a relatively higher proportion of respondents in the study who indicated that they make use of store/retail cards. The findings further show that store/retail cards are the most commonly and frequently used debt instruments across all consumer demographic attributes.

4.7.10 CREDIT FROM A FURNITURE STORE

Subhypothesis

H_{019} There is no statistically significant relationship between the usage of credit from a furniture store and the usage of savings instruments.

H_{20} There is a statistically significant relationship between the usage of credit from a furniture store and the usage of savings instruments.

Table 4.24 shows that there are only three savings tools (savings account other than Mzansi, funeral insurance, and life-cover policy) that have a statistically significant relationship with credit from a furniture-store. It is clear that these savings tools do not comply with the decision-rule criteria where at least four savings tools should be included in seven savings categories to reject the null hypothesis. Therefore the null subhypothesis H_{021} is accepted on the basis of this outcome, implying that there is no statistically significant relationship between the usage of credit from a furniture store and the usage of savings instruments.

TABLE 4.24
CREDIT FROM A FURNITURE STORE

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.174	1.189	0.482
Savings account other than Mzansi	0.634	1.885	0.008***
Savings account/investment account (fixed-term)	0.172	1.188	0.480
Unit trusts	0.112	1.118	0.814
Shares (JSE-listed companies)	-0.656	0.519	0.105
Endowment/savings/retirement-annuity policy	0.165	1.18	0.555
Funeral insurance	0.373	1.452	0.099*
Life-cover policy	0.641	1.899	0.015**
Medical insurance	0.386	1.472	0.182
Medical fund	0.321	1.379	0.199
Stokvel/burial society	-0.093	0.911	0.705
Retirement policy/pension fund	0.273	1.314	0.273
Education plan/policy	0.392	1.479	0.236
Saving money at home	0.302	1.353	0.246
Giving money to a person whom I can trust	0.339	1.403	0.237
Government retail bonds	0.595	1.814	0.392

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

Consumers who overspend on credit from furniture stores may be indebted to a level where they could be unable to invest in most of the savings tools. Therefore, it is important that consumers are cautioned against a high usage of debt instruments which could inhibit their chance of increasing their savings to secure their future financial stability, and to access funds times of emergencies.

4.7.11 INFORMAL PERSONAL LOANS (FROM MASHONISA/MICROLENDERS)

Subhypothesis

H_{021} There is no statistically significant relationship between the usage of informal personal loans (from mashonisa/microlenders) and the usage of savings instruments.

H_{22} There is a statistically significant relationship between the usage of informal personal loans (from mashonisa/microlenders) and the usage of savings instruments.

There are only two savings tools (i.e. endowment/savings/retirement-annuity policy and medical insurance) which have a statistically significant relationship with the usage of informal personal loans (from mashonisa/microlenders), as shown in table 4.25. It is clear that this outcome does not comply with the decision rule to reject the null hypothesis. Therefore, the null subhypothesis H_{021} is accepted, implying that there is no statistically significant relationship between the usage of informal personal loans (from mashonisa/microlenders) and the usage of savings tools.

TABLE 4.25
INFORMAL PERSONAL LOAN (FROM MASHONISA/MICROLENDERS)

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzanzi	-0.127	0.881	0.724
Savings account other than Mzanzi	-0.230	0.794	0.462
Savings account/investment account (fixed- term)	-0.050	0.951	0.897
Unit trusts	-17.85	0.000	0.997
Shares (JSE-listed companies)	-1.211	0.298	0.254
Endowment/savings/retirement-annuity policy	0.742	2.099	0.085*
Funeral insurance	-0.259	0.772	0.435
Life-cover policy	-0.747	0.474	0.120
Medical insurance	-1.317	0.268	0.06**
Medical fund	-0.194	0.824	0.638
Stokvel/burial society	0.278	1.320	0.404
Retirement policy/pension fund	-0.622	0.537	0.150
Education plan/policy	-0.503	0.605	0.402
Saving money at home	-0.271	0.763	0.479
Giving money to a person whom I can trust	-0.054	0.947	0.896
Government retail bonds	-17.595	0.000	0.997

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

The outcome of this model shows that there is less likelihood that consumers who make use of informal personal loans from mashonisa/microlenders will make use of savings tools to increase their savings levels. This may be due to the high debt-servicing costs associated with loans from informal institutions such as microlenders/mashonisa. Most consumers use informal microlenders for personal loans because such loans are easier to obtain than loans from formal financial institutions which normally subject the consumers to a stringent screening process before providing a loan, as required by the National Credit Act 34 of 2005. Therefore, consumers with an insufficient income may be tempted to make use of informal personal loans from mashonisa/microlenders to supplement their income and increase their available funds for servicing debt and also for financing their expenditure. This situation may cause consumers to fall into a “debt

trap” where it becomes very difficult to lower the debt levels without necessary legislative interventions such as debt counselling and administration.

4.7.12 LOAN FROM A STOKVEL/BURIAL SOCIETY

Subhypothesis

H_{023} There is no statistically significant relationship between the usage of loans from a stokvel/burial society and the usage of savings instruments.

H_{24} There is a statistically significant relationship between the usage of loans from a stokvel/burial society and the usage of savings instruments.

Table 4.26 shows that there are six savings tools (i.e. savings account –Mzansi, savings account other than Mzansi, savings account/investment account, life-cover policy, medical insurance, and stokvel/burial society which have a statistically significant relationship with loans from a stokvel/burial society. This outcome clearly complies with the stipulation in the decision rule where these savings tools constitute the six savings categories. This implies that the null subhypothesis H_{023} is rejected in favour of H_{24} , namely that is that there is a statistically significant relationship between the usage of loans from a stokvel/burial society and the usage of savings tools.

TABLE 4.26
LOAN FROM A STOKVEL/BURIAL SOCIETY

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	-0.563	0.569	0.088*
Savings account other than Mzansi	0.828	2.289	0.003**
Savings account/investment account (fixed- term)	0.995	2.705	0.000***
Unit trusts	0.000	1.000	1.000
Shares (JSE-listed companies)	0.170	1.185	0.731
Endowment/savings/retirement-annuity policy	0.486	1.626	0.157
Funeral insurance	-0.197	0.821	0.465
Life-cover policy	0.607	1.835	0.057**
Medical insurance	-2.584	0.075	0.001***
Medical fund	0.305	1.356	0.313
Stokvel/burial society	2.851	17.306	0.000***
Retirement policy/pension fund	-0.231	0.793	0.468
Education plan/policy	0.523	1.687	0.184
Saving money at home	-0.109	0.897	0.734
Giving money to a person whom I can trust	0.185	1.204	0.588
Government retail bonds	-17.292	0.000	0.996

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding suggests that there is a predictable likelihood that consumers who take out loans from a stokvel/burial society could use the savings tools to increase their levels of saving should they lower their debt levels. It is imperative that consumers have good financial-management skills to minimise their spending which may be financed by debt instruments such as loans from a stokvel/burial society. Insufficient available income could be the main reason why consumers use loans from their short- and medium-term savings to finance their expenditure and to service other debt. This may be indicative of consumers spending more than their income and using loans to supplement their income and increase available funds. Insufficient income to finance higher debt-serving costs and spending may result in consumers being unable to even pay back the loans

taken out from a stokvel/burial society. This may adversely affect their savings intended to be used in the case of an emergency (e.g. to cover funeral costs).

4.7.13 BORROWING FROM FAMILY OR FRIENDS

Subhypothesis

H_{025} : There is no statistically significant relationship between borrowing from family or friends and the usage of savings instruments.

H_{26} : There is a statistically significant relationship between borrowing from family or friends and the usage of savings instruments.

Table 4.27 shows that there are three savings tools (i.e. endowment/retirement annuity-policy, and medical fund which have a statistically significant relationship with borrowing from family or friends. These savings tools are also included in the six savings categories stipulated in the decision rule. Therefore, the null subhypothesis H_{025} can be accepted on the basis of this outcome, implying that there is a statistically significant relationship between borrowing from family or friends and the usage of savings tools.

TABLE 4.27
BORROWING FROM FAMILY OR FRIENDS

Savings tools	β- coefficient	Exp(β)t	Sig
Savings account – Mzansi	0.267	1.306	0.233
Savings account other than Mzansi	-0.184	0.832	0.362
Savings account/investment account (fixed-term)	-0.254	0.776	0.333
Unit trusts	-0.495	0.609	0.406
Shares (JSE-listed companies)	-0.621	0.537	0.175
Endowment/retirement-annuity policy	-0.966	0.381	0.005***
Funeral insurance	-0.154	0.857	0.476
Life-cover policy	-0.574	0.563	0.049**
Medical insurance	-0.239	0.787	0.448
Medical fund	-0.900	0.406	0.001***
Stokvel/burial society	0.297	1.346	0.179
Retirement policy/pension fund	-0.314	0.730	0.219
Education plan/policy	-0.346	0.707	0.373
Saving money at home	0.317	1.373	0.181
Giving money to a person whom I can trust	0.280	1.324	0.308
Government retail bonds	0.752	2.120	0.223

* Significance at 0.1 level

** Significance at 0.05 level

*** Significance at 0.001 level

This finding shows that there is a likelihood that consumers who borrow from family or friends could increase their savings levels should they minimise debt incurred by such borrowing to finance their expenditure. These consumers may be relying on their families and friends to supplement their income as part of the funds available for servicing other debt and spending.

Borrowing from friends and family does not subject the consumer to formal and stringent lending procedures applicable in most financial institutions as required by the National Credit Act 34 of 2005. This implies that consumers who would normally not qualify for a loan from such financial institutions (due to their higher debt levels and impaired credit record) may opt to borrow from their families and friends. As a result,

those consumers would even be more indebted to the extent that they could hardly service their debt, and this could lead to more financial distress and lower savings.

Therefore it is imperative that consumers be cautioned against increasing their debt levels simply because it is easily to do so- it would not provide a long-term solution to their financial difficulties. As a last resort these consumers should rather seek other remedies for debt relief, such as debt counselling and administration.

4.8 CONCLUSION

In summary, this chapter commenced by exploring the influence of demographic attributes on consumers' usage of certain savings tools and debt instruments. The results show that certain demographic attributes such as employment and level of education impact on consumers' high usage of certain savings tools and debt instruments. For instance, the Pearson Chi-Square Test shows that there is a statistically significant difference in the usage of credit cards between men and women. It also emerged that there are certain savings tools such as savings accounts other than Mzansi and debt instruments such as store/retail cards that are most commonly used by consumers across all the demographic attributes

Table 4.28 contains a synopsis of the usage of the debt instruments by the number of respondents (n values) and with the corresponding proportion according to the respondents' gender, employment status, level of education, and age group.

TABLE 4.28
THE MOST COMMONLY AND FREQUENTLY USED DEBT INSTRUMENTS
ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES

Demographic attribute		Debt-instrument usage		
Gender	Male n=472	Store/retail cards n=196: 42.2%	Credit cards n=125: 27.4%	
	Female n=415	Store/retail cards n=188: 46.2%	Credit cards n=137: 33.9%	
Employment status	Self-employed n=63	Store/retail cards n=33: 52%	Credit cards n=23:37.1%	
	Full-time employed n=263	Store/retail cards n=164: 63.6%	Credit cards n=118: 46.3%	
	Part-time employed n=46	Store/retail cards n=19: 41.3%	Loan from family and friends n=16: 35.6%	Credit cards n=14: 30.4%
	Unemployed n=247	Store/retail cards n=81 : 33.1 %	Loan from family and friends n=64 : 26.2%	
	Not available for employment =268	Store/retail cards n=87 : 33.5%	Credit cards n=70 : 27%	
Level of education	No schooling n=101	Loan from family /friends n=34 : 34%	Store/retail cards n=33 : 33%	
	Grade 1-7 n=174	Store/retail cards n=49 : 29%	Loan from family and friends n=46: 27.5%	Credit from a furniture store n=49 : 28.7%
	Grade 8-11 n=158	Store/retail cards n=68: 43.9%	Loan from family/friends n=37: 23.7%	Credit from a furniture store n=32: 20.8%
	Matric n=247	Store/retail cards n=121: 50%	Credit cards n=80: 33.6%	
	Postmatric qualification n=180	Store/retail cards n=96: 53.6%	Credit cards n=93: 52.5%	
	Postgraduate qualification n=27	Credit card n=18: 66.7%	Store/retail cards n=17: 63%	

TABLE 4.28
THE MOST COMMONLY AND FREQUENTLY USED DEBT INSTRUMENTS
ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES

Continued

Age group	Under the age of 21 n=92	Store/retail cards n=37 : 43%	Credit from a furniture store n=13 : 15.5%	
	22-34 n=138	Store/retail cards n=50 : 36.5%	Loan from family/friends n=31 : 23.1%	
	35-44 n=156	Store/retail cards n=92 : 60.1%	Car finance n=43 : 28.1%	
	45-54 n=173	Store/retail cards n=93 : 54.1%	Credit from a furniture store n=49 : 28.7%	
	55-59 n=82	Store/retail cards n=32 : 39.5%	Loan from family/friends n=19 : 23.5%	
	60 and older n=246	Store/retail cards n=80 : 32.9%	Loan from family/friends n=54 : 22.4%	

More females use a higher number of debt instruments than males, although store cards, and credit cards emerged as the debt instruments that are most commonly and frequently used by both male and female consumers.

Consumers who are employed (i.e. full-time-, part-time- and self-employed) utilise more debt instruments than consumers in other employment categories. It is also interesting to note that the debt instrument the most commonly and frequently used by consumers across the employment categories emerged to be store cards.

There is a positive relationship between the usage of debt instruments and the level of education of the consumer. This may be indicative of the fact that consumers with a higher level of education are likely to utilise more debt instruments. It also emerged that the debt instruments the most commonly and frequently used by consumers, especially those with a postmatric qualification, include credit cards store cards, and car finance.

Table 4.29 contains a synopsis of savings-tool usage according to the number of respondents (n-values) and with the corresponding proportion according to the respondents' gender, employment status, level of education, and age group.

TABLE 4.29
THE MOST COMMONLY AND FREQUENTLY USED SAVINGS TOOLS
ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES

Demographic attribute		Savings-tool usage		
Gender	Male n=472	Savings account other than Mzansi n=261 56.7%	Funeral insurance n=199 :43.4%	Stokvel/burial society n=138 : 29.9%
	Female n=415	Savings account other than Mzansi n=224 60.4%	Funeral insurance n=177 :44.5%	Stokvel/burial society n=129 :31.9%
Employment status	Self-employed n=63	Savings account other than Mzansi: n=38:61.3%	Funeral insurance: n=29:48.3%	Savings account/investment account (fixed- term): n=21:34.4%
	Full-time employed n=263	Savings account other than Mzansi n=183: 1.8%	Funeral insurance n=150: 59.1%	Medical fund n=119: 46.7%
	Part-time employed n=46	Savings account other than Mzansi n=22:50%	Savings account – Mzansi n=21:47.7%	Funeral insurance n=13:28.9%
	Unemployed n=247	Savings account other than Mzansi n=105: 3.2%	Funeral insurance n=79:32.6%	Stokvel/burial society n=57:23.4%
	Not available for employment n=268	Savings account other than Mzansi n=157: 60.4%	Funeral insurance n=105:41%	Stokvel/burial society n= 105:40.1%

TABLE 4.29
THE MOST COMMONLY AND FREQUENTLY USED SAVINGS TOOLS
ACCORDING TO CONSUMER DEMOGRAPHIC ATTRIBUTES

Continued

Level of education	No schooling n=101	Savings account other than Mzansi n=39:40.2%	Funeral insurance n=34:34.3%	Stokvel/burial society 34:34.3%
	Grade 1-7 n=174	Savings account other than Mzansi n=86:50.3%	Stokvel/burial society n=69:40.1%	Funeral insurance n=49:28.8%
	Grade 8-11 n=158	Savings account other than Mzansi n=84:54.9%	Funeral insurance n=50:33.1%	Stokvel/burial society n=43:27.9%
	Matric n=247	Savings account other than Mzansi n=149: 2.6%	Savings account/investment account (fixed-term) n=70:29.9%	Funeral insurance n=117:49.8%
	Postmatric qualification n=180	Savings account other than Mzansi n=123: 9.1%	Funeral insurance n=108:61.7%	Medical fund n=100:56.2%
	Postgraduate qualification n=27	Savings account other than Mzansi n=24:88.9%	Life-cover policy n=19:70.4%	Funeral insurance n=18:66.7%
Age group	Under the age of 21 n=92	Savings account other than Mzansi n=52:59.1%	Funeral insurance n=44:50.6%	Medical fund n=39:43.8%
	22-34 n=138	Savings account other than Mzansi n=60:44.8%	Funeral insurance n=49:36.3%	Medical fund n=31:23.1%
	35-44 n=156	Savings account other than Mzansi n=100:66.2%	Funeral insurance n=81:54.4%	Life-cover policy n=60:40.5%
	45-54 n=173	Savings account other than Mzansi n=111:65.7%	Funeral insurance n=82:48.7%	Retirement policy/pension fund n=65:39.4%
	55-59 n=82	Savings account other than Mzansi n=43:53.8%	Funeral insurance n=34:43%	Stokvel/burial society n=26:32.5%
	60 and older n=246	Savings account other than Mzansi n=139:57.4%	Funeral insurance n=86:36%	Stokvel/burial society n=82:33.5%

As opposed to the usage of debt instruments, a higher number of males reported a relatively higher frequency in the usage of savings tools than females as far as the following savings-tool categories were concerned: savings accounts other than Mzansi, funeral insurance and stokvel/burial society. However, it also emerged that the above-mentioned three savings tools are the savings tools the most commonly and frequently used by both male and female consumers.

As would be expected, a higher number of employed consumers (especially those who are full-time- and self-employed) utilise more savings tools than other consumers with different employment statuses. It further emerged that the savings tools the most commonly and frequently used by employed consumers included savings accounts other than Mzansi, funeral insurance, a life-cover policy, and a retirement policy/pension fund.

The discussion of the influence of demographic attributes on consumer savings and debt instruments was followed by an analysis of the logistic-regression model where the independent variables denoted the debt instruments and savings tools represented the dependent variables.

That entailed a detailed analysis of the regression statistical tests on predictor variables to determine the statistical significance of the relationship between debt instruments and savings tools by testing 13 null subhypotheses where a decision rule was stipulated to accept or reject the null hypothesis. The appropriateness of the model for successfully predicting the relationship was assessed by means of the Hosmer-Lemeshow Goodness-of-Fit test and the testing of the main null hypothesis. The results of the Hosmer-Lemeshow Goodness-of-Fit test showed that there is a statistically significant relationship between debt instruments and savings tools.

Table 4.30 provides a synopsis of the outcome pertinent to savings tools that have a statistically significant relationship with debt instruments by complying with the decision rule. The predicted outcome regarding the usage of savings tools is shown by the

positive β -coefficient, which has to be greater than 1, implying an increase in the odds ratio and an $\text{Exp}(\beta)$ greater than 1, meaning that the independent variables increase the logit and therefore increase the odds (event), and values lower than 0.100, which are indicative of significant coefficients denoting good predictors of the relationship.

TABLE 4.30
SYNOPSIS OF SAVINGS TOOLS WHICH HAVE A STATISTICALLY SIGNIFICANT EFFECT IN RELATION TO THE DEBT INSTRUMENTS

Savings tools	β -coefficient	$\text{Exp}(\beta)$ t	Sig
CREDIT CARDS			
Savings account other than Mzansi	0.698	2.010	0.002***
Savings account/investment account (fixed-term)	0.595	1.814	0.006***
Unit trusts	1.770	5.869	0.000***
Shares (JSE-listed companies)	1.085	2.960	0.000***
Life-cover policy	0.466	1.593	0.040**
Medical fund	0.975	2.652	0.000***
Stokvel/burial society	-0.638	0.528	0.010**
PERSONAL LOAN FROM A FINANCIAL INSTITUTION SUCH AS A BANK			
Savings account – Mzansi	0.602	1.825	0.036**
Unit trusts	-0.89	0.411	0.100*
Endowment/savings/retirement-annuity policy	0.738	2.093	0.015**
Education plan/policy	0.700	2.014	0.043**
HOME LOAN/MORTGAGE			
Savings account – Mzansi	0.472	1.604	0.092*
Savings account/investment account (fixed-term)	0.539	1.714	0.040**
Unit trusts	0.714	2.043	0.075*
Endowment/savings/retirement-annuity policy	0.811	2.249	0.003***
Life-cover policy	0.885	2.424	0.001***
Medical fund	0.486	1.625	0.066*
Stokvel/burial society	-0.97	0.379	0.005**
Retirement policy/pension fund	0.654	1.922	0.015**
Giving money to a person whom I can trust	0.593	1.810	0.068*
BORROWING AGAINST A POLICY			
Savings account – Mzansi	1.485	4.414	0.001***

TABLE 4.30

SYNOPSIS OF SAVINGS TOOLS WHICH HAVE A STATISTICALLY SIGNIFICANT EFFECT IN RELATION TO THE DEBT INSTRUMENTS

Continued

Savings account other than Mzansi	-1.496	0.224	0.001***
Stokvel/burial society	-1.583	0.205	0.015**
Saving money at home	1.634	5.126	0.000***
USAGE OF CAR FINANCE			
Savings account other than Mzansi	0.800	2.226	0.009***
Medical insurance	0.574	1.775	0.033**
Retirement policy/pension fund	0.415	1.515	0.098*
STUDY/EDUCATION LOAN			
Funeral insurance	0.696	2.006	0.083*
Life-cover policy	0.904	2.469	0.028**
Medical insurance	1.136	3.114	0.008***
Stokvel/burial society	0.973	2.646	0.018**
Retirement policy/pension fund	0.958	2.607	0.015**
Education plan/policy	2.094	8.114	0.000***
BORROWING AGAINST A PENSION FUND			
Life-cover policy	1.401	4.060	0.005***
Retirement policy/pension fund	1.661	5.266	0.001***
Giving money to a person whom I can trust	1.392	4.023	0.002***
STORE RETAIL/CARD			
Savings account other than Mzansi	0.76	2.139	0.000***
Savings account/investment account (fixed-term)	0.435	1.544	0.036**
Funeral insurance	0.740	2.097	0.000***
Medical insurance	0.484	1.622	0.045**
Stokvel/burial society	0.576	1.779	0.005***
Retirement policy/pension fund	0.418	1.519	0.041**
Education plan/policy	0.794	2.211	0.015**
LOAN FROM A STOKVEL/BURIAL SOCIETY			
Savings account – Mzansi	-0.563	0.569	0.088*
Savings account other than Mzansi	0.828	2.289	0.003**
Savings account/investment account (fixed-term)	0.995	2.705	0.000***
Life-cover policy	0.607	1.835	0.057**
Medical insurance	-2.584	0.075	0.001***
Stokvel/burial society	2.851	17.306	0.000***
BORROWING FROM FAMILY OR FRIENDS			
Endowment/savings/retirement-annuity policy	-0.966	0.381	0.005***
Life-cover policy	-0.574	0.563	0.049**
Medical fund	-0.900	0.406	0.001***

- * Significance at 0.1 level
- ** Significance at 0.05 level
- *** Significance at 0.001 level

The outcome of this model shows that 10 of the 13 null sub-hypotheses were rejected on the basis of the decision rule, namely:

- If $n_{hs} \geq 4$, then the savings tools have an overall statistically significant relationship with the debt instruments.
- If $n_{hs} < 4$, then the savings tools do not have an overall statistically significant relationship with the debt instruments.

It also emerged that four types of debt instrument in the model (i.e. credit cards, home loan/mortgage, and store/retail cards) have a statistically significant relationship with more than seven types of savings tool included in the six savings categories stipulated in the decision rule. This shows that these debt instruments have a relatively higher predictive effect regarding the usage of savings tools for increasing the savings levels of consumers.

The next chapter contains the synthesis of the findings, recommendations and conclusions of the study based on this chapter and as well as the literature.

CHAPTER 5

SYNTHESIS OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter contains a synthesis of the research findings in conjunction with the literature consulted for the study and the conclusions drawn from it. The outcome of the null-hypothesis tests based on the stated decision rule is also addressed in this chapter, where the significance of the relationship between the usage of savings tools and the usage of debt instruments by consumers is expounded to show that a higher usage of debt instruments could lead to higher debt levels, resulting in lower savings levels. More specifically, the design of the research model in this study sought to illustrate the relationship between the usage of debt instruments and the usage of savings instruments, and to identify debt instruments that have a statistically significant relationship with savings tools.

The chapter also delineates the descriptive findings regarding the savings tools and the debt instruments that are most frequently and commonly used by consumers according to demographic attributes. This provides an insight into the role and implications of certain consumer demographic attributes in the usage of debt instruments and savings tools and the conclusions drawn from those findings. The chapter then concludes with recommendations, suggestions for future research and remarks regarding the implications of consumer debt-instrument and savings-tools usage within the context of PFM.

5.2 SYNOPSIS OF THE LITERATURE ON PERSONAL FINANCIAL MANAGEMENT (PFM)

The culture of materialism in a society which is characterised by vast income disparities and a penchant for excessive spending on consumption expenditure such as South

Africa is one of the main contributors to the higher usage of debt instruments among different consumer segments, especially lower-income consumers (Jacobs & Smith, 2010). Material things to consumers with limited available funds serve as a short-term outward projection of wealth and success, causing them to resort to debt instruments such as credit cards, store cards and loans to finance such a lifestyle.

The literature shows that this type of behaviour usually involves excessive splurging on cars, clothing and other luxury items, so that these consumers cannot afford to channel their funds to important savings tools to secure a financially comfortable retirement and children's education (Cameron & Moodley-Isaacs, 2010). Jacobs and Smith (2010) further affirm that the consumption decision of these typical consumers is more likely to be driven by materialistic desire than necessity. The tendency of using debt to finance spending on expenditure and using savings tools to service debt costs is further aggravated by the apparent lack of PFM knowledge and financial-planning skills (Swart, 2002; Struwig & Plaatjies, 2007).

The concept "PFM" provided the premise for building up the theory pertinent to the relationship between debt-instrument take-up and the usage of savings tools by consumers in this study. The causal-chain model adapted from Van Aardt (2010) was constructed and incorporated into the literature to sketch out the dynamics inherent in the relationship between the take-up of debt instruments and the usage of savings tools. The model suggests that an insight into PFM plays a pivotal role in consumers' financial planning which could influence their conduct regarding spending on expenditure and responsible usage of available funds. Therefore, the role of financial literacy is crucial to enlighten consumers about the importance of saving and minimising unnecessary spending through debt and is also a prerequisite for sound financial-planning skills (Braunstein & Welch, 2002). Joehnk et al. (2011) also affirm that successful planning brings rewards that include greater flexibility, an improved standard of living, wise spending habits, and increased wealth.

The Organisation for Economic Co-operation and Development (OECD) (2005) further postulates that financial education is beneficial across the diverse consumer demographic attributes which characterise the South African society. For instance, young adults with adequate financial education could start budgeting and saving in their early working lives to keep expenses and debt under control. Consumers with families could acquire the discipline to engage in long- and medium-term savings such as housing and children's education, and older workers could be provided with adequate information and skills to make wise long-term savings choices such as retirement planning to ensure that they have sufficient savings to retire comfortably. Consumers with a low income could also be equipped to make the most of what they are able to save in appropriate savings tools to avoid higher financial and transaction charges and to ensure maximum returns.

The literature also indicates that financial education can enhance comprehension of basic financial information such as the trade-offs between risk and return and the value of compound interest as well as the benefits and costs of certain types of saving (OECD, 2005).

Apart from consumers' intrinsic behavioural factors exhibited by an anti-savings and pro-debt culture, there are other external factors that contribute to consumers' high debt levels and relatively low saving trends that should also be taken into account. These factors include, among other things, global inflation, low income of a large portion of households, job losses, easily accessible credit and predatory lending practices by financial-service providers (Tustin, 2010; Kotzé, 2006).

5.3 SYNTHESIS OF CONSUMER USAGE OF SAVINGS TOOLS AND CREDIT INSTRUMENTS ACCORDING TO DEMOGRAPHIC ATTRIBUTES

Findings regarding the role of consumer demographic attributes in the usage of savings tools and debt instruments provide an insight into consumer usage trends as far as certain debt instruments and savings tools are concerned. For instance, it was found in

this study that full-time-employed consumers with a higher education use more debt instruments and savings tools. The majority of the “young emerging middle-class consumers” fall into this category of consumer who are in their early stages of employment and are still in the process of accumulating assets through debt and are also prone to peer pressure. A number of these consumers tend to prioritise short-term immediate needs such as luxury items above long-term future needs such as life cover and retirement plans for future financial security.

This is congruent with the literature, which shows that, in contrast, the majority of consumers who plan their finances in advance are more mature (aged 40 and older) and are also high earners with a higher level of education (Moodley-Isaacs, 2010a). Therefore, it is apparent that consumer demographic attributes play a role in consumer financial management, and it is also confirmed in the literature that the usage of debt instruments and savings tools varies according to consumer demographic attributes (Hyun Cho, 2009).

The discrepancies in the usage of debt instruments and savings tools according to consumer demographic attributes are evident in the findings of this study. Demographic attributes that were measured in this study regarding the usage of debt instruments and the usage of savings tools included gender, employment status, level of education, and age. The literature also shows that these are some of the major demographic attributes that are considered to play an important role in the usage of savings tools and debt instruments by consumers (Kotzé, 2006; Nguabanchong, 2004; Hyun Cho, 2009; Hassan Al-Tamimi & Bin Kalli, 2009).

The synthesis of the findings of this study is delineated by a descriptive analysis of consumer usage of the main debt instruments and also of savings tools to provide a broad overview of the type of debt instrument and savings tool that are most commonly and frequently used by consumers according to demographic attributes (see tables 4.28 and 4.29 in ch. 4).

5.3.1 Consumer usage of debt instruments

Findings of this study show that there are four main types of debt instrument that are commonly and most frequently used by consumers according to demographic attributes, namely store/retail cards, credit cards, credit from furniture stores, and loans from family and friends. This coincides with the findings of SAARF: AMPS (2007 - 2012) and the NCR (2012), which show that although mortgage bonds constitute the highest percentage of over R1.4 trillion worth of debt in South Africa, store cards, credit cards and overdrafts account for more than 12% of consumer debt. This illustrates the importance of these types of debt instrument in terms of the number and the extent used by consumers, and they are also easily accessible for most consumers (NCR, 2010).

The advent of recent structural changes in the labour market and legislative amendments to redress gender imbalances in relation to job equity has led to more women entering the job market. This has provided women with an opportunity to access more financial products than in the past. This is evident from a relatively higher proportion of females who use a large number of debt instruments such as store/retail cards and credit cards than their male counterparts. Full-time-employed consumers use a higher number of credit cards and store/retail cards than consumers in other employment categories such as the self-employed and part-time-employed categories.

However, the findings show that store/retail cards constitute the most commonly and frequently used debt instrument by consumers across all the employment categories. Consumers with a higher level of education, especially with a postmatric qualification, use a relatively higher proportion of credit cards, car finance and store/retail cards than consumers with lower qualifications. This finding shows that the higher the level of education attained by the consumer the more the usage of certain debt instruments.

It was found from this study that consumers' usage of debt instruments according to age shows that a relatively higher proportion of consumers in the age category of 45 to 54

use more store/retail cards and credit from furniture stores than those in the age category of 55 and older. These findings clearly show that store/retail cards constitute the most commonly and frequently used debt instrument by consumers across all the demographic attributes measured in this study. This finding coincides with the notion that these types of debt instrument are associated with compulsive-buying behaviour which is pervasive among the younger, female, relatively lower-income, consumers (Jacobs & Smith, 2010).

5.3.2 Consumer usage of savings tools

There are seven main types of savings tool that were found to be commonly and most frequently used by consumers in relation to their demographic attributes as opposed to debt instruments, as mentioned in the previous section. These savings tools include savings accounts other than Mzansi, funeral insurance, stokvels/burial societies, medical funds, savings accounts/investment accounts (fixed-term), life-cover policies, and retirement policies/pension funds. It is imperative to take into account that the relatively higher frequency in the usage of savings tools does not necessarily reflect higher consumer saving levels. Hence, consumers could be using their savings tools such as short-, medium- and long-term savings to finance their expenditure and to service higher debt costs.

In most instances, males are traditionally in charge of securing the financial welfare of the household, whereby they are inclined to assume the responsibility of managing most of the main financial activities, which may also involve short- and long-term savings tools. This provides the rationale for the findings of this study which show that a relatively higher usage of savings tools such as savings accounts other than Mzansi, funeral insurance, stokvels/burial societies, and life-cover policies by male consumers than by female consumers.

It was also found that a relatively higher proportion of consumers who are full-time employed use more savings tools such as savings accounts other than Mzansi, funeral

insurance, life-cover policies, medical funds and retirement policies/pension funds than other consumers in different employment categories. As mentioned earlier, there is a relatively higher usage of savings accounts other than Mzansi, funeral insurance, life-cover policies, medical insurance, and retirement policies/pension funds among consumers with a postmatric qualification. This finding shows that consumers with a higher level of education appeared to use more savings tools than consumers with a lower level of education.

The role of education in the usage of savings tools is further espoused by Nguabanchong (2004), who confirms that individuals' level of education has an influence on their saving by showing that schooling is positively related to saving because of the increase in knowledge associated with a higher level of education.

There was a lower usage of savings tools among older consumers in the age bracket of 55 to 60 and older, specifically after the retirement age. This may be due to a number of factors, including a decline in income when reaching retirement, life-style and behavioural changes, and more responsible financial management. In contrast, there was a high usage of savings tools among consumers within the age brackets of 35 to 44 and 45 to 54, which included savings accounts other than Mzansi, funeral insurance, life-cover policies, retirement policies/pension funds and medical funds.

It is important to note that despite the apparent influence of demographic attributes on the usage of savings tools by consumers, there are other factors that influence consumer usage of savings tools such as long-term debt including home mortgage bonds and medium-term debt such as motor-vehicle finance (*Old Mutual Savings Monitor*, 2010g).

5.4 SYNTHESIS OF THE FINDINGS OF THE ANALYSIS OF THE LOGISTIC-REGRESSION MODEL AND THE RESEARCH HYPOTHESIS

The unprecedented escalation of consumer access to credit in terms of numbers and value from the banks and nonbanking institutions as recorded by the NCR (2010a) year after the implementation of the National Credit Act 34 of 2005 bears testimony to little change towards a pro-debt culture among consumers in South Africa. Concerns were also raised against debt-inducing practices such as misleading advertising, predatory lending tendencies by some financial institutions. These are some of the institution-related practices that could be held partly accountable for consumers falling prey to high debt-take-up habits as far as debt instruments such as store/retail cards and credit cards are concerned. Consequently, consumers find themselves having accumulated higher and unnecessary debt only to finance extravagant wants rather than essential needs, leaving them with no funds to channel into savings.

Consumers with no income left are thus compelled to use their savings tools to finance the debt. This relationship between the take-up of debt and the usage of savings tools is evident from the results of the hypothesis tests which show that there is a significant relationship between the usage of debt instruments and the usage of savings tools. Therefore, the synthesis of the findings is presented to address the test results of the logistic-regression model applied in the research hypothesis:

H_0 : There is no statistically significant relationship between the usage of debt instruments and the usage of savings tools.

H_1 : There is a statistically significant relationship between the usage of debt instruments and the usage of savings tools.

The appropriateness of the logistic-regression model used to test the research hypothesis was assessed by means of the Hosmer-Lemeshow Goodness-of-Fit test. The results of the Hosmer-Lemeshow Goodness-of-Fit test showed that 12 of the 16

savings tools had significance levels greater than 0.05, indicative of an appropriate model fit to reject the null hypothesis. This implied that there is a statistically significant relationship between debt instruments and savings tools. Further to testing the model fit, each one of the 13 debt instruments presented in the model was also subjected to null-hypothesis testing to assess if they had a significant relationship with the savings tools.

The decision to either reject or accept each of the 13 null hypotheses was based on decision-rule criteria. For instance, the null hypothesis can be rejected if there are least four or more types of savings tool out of the six types of savings tool (i.e. a percentage greater than 67) that have a statistically significant relationship with each of the 14 debt instruments. Therefore, the decision rule reads as follows:

- If $n_{hs} \geq 4$, then the savings tools have an overall statistically significant relationship with the debt instruments.
- If $n_{hs} < 4$, then the savings tools do not have an overall statistically significant relationship with the debt instruments.

The results of the hypothesis tests indicated that 10 of the 13 null subhypotheses were rejected. This implies that there is a statistically significant relationship between the usage of savings tools and the usage of 10 debt instruments, namely credit cards, personal loans from a financial institution such as a bank, a home loan/mortgage, borrowing against a policy, usage of car finance, study/education loans, borrowing against a pension fund, store retail/cards; loans from a stokvel/burial society, and borrowing from family or friends.

It is clear from the findings that certain debt instruments have a statistically significant relationship with a relatively higher number of savings tools than others. For instance, half (five) of the debt instruments, namely formal personal loans, borrowing against a policy, car finance, borrowing against a pension fund, and borrowing from family or a friend have a statistically significant relationship with fewer types of savings tool. The other five debt instruments had a statistically significant relationship with a relatively higher number of savings tools. This was evident from the findings, which showed that a

home loan/mortgage has a statistically significant relationship with ten savings tools, followed by credit cards and store/retail cards, both with eight savings tools, and loans from a stockvel/burial society with seven savings tools. Lastly, a study/education loan has a statistically significant relationship with six savings tools. Based on this evidence, it is clear that consumers who use debt instruments such as credit cards, store cards and long-term debt instruments including a home mortgage are inclined to use more savings tools to finance higher debt costs. It is also anticipated that this situation could even be worse if it were not for the tougher lending provisions of the National Credit Act (NCA), contributing to 44% of all debt applications being denied (Cameron, 2009a).

This finding shows that there is a likelihood that consumers who take up certain types of debt instrument would make use of a certain number and different types of savings tool. For instance, consumers who take up debt instruments such as formal loans, borrow against a policy, make use of car finance, borrow against a pension fund, and borrow from family or a friend are more likely to use fewer savings tools to finance their debt costs. Similarly, there is a likelihood that consumers who take up debt instruments such as a home loan/mortgage would make use of most savings tools.

The findings pertaining to the significance of the relationship between the usage of debt instruments and the usage of savings tools could have implications for consumers who use certain types of debt instrument which have a statistically significant relationship with either fewer or more savings tools. For instance, store/retail cards are among the debt instruments which have a significant relationship with a relatively higher number of savings tools. This implies that consumers who use these types of debt instrument are likely to use more savings tools to finance the debt costs, meaning that their savings levels could even be much lower.

These debt instruments are also most commonly and frequently used by consumers, constituting more than 50% of the major debt instruments used by consumers between 2007 and 2011, followed by credit cards, with a percentage of 18 (SAARF: AMPS, 2011). Credit-card debt is among the most expensive types of debt, and yet many

people keep their credit-card debt at the maximum level, repaying only the required minimum of five% each month. Therefore, a reduction in spending on debt instruments such as store cards and credit cards could most likely minimise debt-servicing costs. Lower debt-servicing costs in turn contribute to higher available funds that can be used to channel more deposits into short- and medium-term savings tools, resulting in higher savings levels.

The findings also showed that a home loan/mortgage has a statistically significant relationship with the highest number of savings tools. Therefore, it is also important to note that in the literature a home loan/mortgage is deemed to be one of the long-term debt instruments which impact negatively on consumer savings and constitute a relatively higher proportion of consumer debt in rand value (*Old Mutual Savings Monitor*, 2010g). However, it should also be noted that a home loan is regarded as a good debt that is used to finance a house which is a property that appreciates in value in the long run and constitutes a large proportion of the consumer's investment in fixed assets (Knight & Knight, 2000; SASI, 2010b; Driver, 2010; Garman & Fogue, 2008).

Furthermore, the findings have shown that a loan from a stokvel/burial society is also one of the debt instruments which has a statistically significant relationship with a relatively higher number of savings tools, after a home loan/mortgage, store/retail cards, and credit cards. The literature acknowledges the existence of informal mechanisms of social security such as stockvels. Therefore, the vital role of informal credit and saving associations for people who are otherwise excluded from other forms of formal financial services due to a lack of usable collateral is recognised in the literature (Verhoef, 2001). It is further acknowledged in the literature that stockvels have formed an integral part of the survival, self-reliance and self-sufficiency strategy, especially as far as lower-income consumers are concerned (Naong, 2009). Therefore, in view of the crucial role of stockvels as mentioned above, it is important that consumers be very careful when borrowing from a stockvel/burial society which subsequently reduces the amount of money locked into this important savings tool, implying that the savings level is decreased.

5.5 CONCLUSIONS

Firstly, the main conclusion of this study is that there is a statistically significant relationship between the usage of debt instruments and the usage of savings tools, which was evident from the test results of the research hypothesis which were computed by means of a logistic regression. Therefore, consumers' higher spending on consumption with limited available funds lead to a higher usage of debt instruments such as store/retail cards, loans and credit cards, consequently leading to higher debt-servicing costs. In turn, higher debt-servicing costs could lead to the depletion of available funds, thus compelling consumers to use their savings tools to finance the debt costs. This is evident from consumers who for instance borrow against their policies and pension funds to finance their expenditure and debt. This finding shows that a reduction in the level of debt would result in lower debt-serving costs, which would make more money available for saving.

The above implies that consumers have to rethink their lifestyle, recalibrate their goals and change their behaviour. It is also concluded that low levels of financial literacy appear to be one of the major challenges in controlling debt and improving the level of savings among consumers. Financial literacy could play an important role in PFM by educating consumers about matters related to financial planning and behavioural change. The key to the success of financial literacy is the challenge of starting to change the mindset and tendencies of placing a great deal of value on material things and also of dispelling misconceptions by today's society that there is no alternative but to incur debt.

The second major conclusion drawn from the findings pertains to the usage of debt instruments and savings tools according to consumer demographic attributes. It is concluded that certain demographic attributes such as income, employment status, age and level of education play an important role in consumer usage trends of savings tools and debt instruments. This was evident from the findings, which for instance showed that consumers with a higher level of education such as a postmatric qualification and

full-time employment use a relatively higher number of debt instruments and savings tools. It is also concluded that older consumers, especially those beyond the age bracket of 55 to 60, use fewer debt instruments and savings tools.

Thirdly, it is concluded that the debt instruments which are most commonly and frequently used such as credit cards and store cards have a statistically significant relationship with a high number of savings tools. Debt instruments with a high rand value such as a home loan/mortgage also have a statistically significant relationship with a number of savings tools, and could also impact negatively on savings levels. Furthermore it is concluded that that store/retail cards are the most commonly and frequently used debt instruments across all consumer segments.

5.6 RECOMMENDATIONS

This study has proven that there is a statistically significant relationship between the usage of debt instruments and savings tools by consumers. The effect of this relationship can be used to determine and predict the likelihood of consumers using certain savings tools to mitigate high debt levels by encouraging a reduction in spending and an increase in savings levels. Such an endeavour should be tailored to enlightening consumers regarding the importance of financial planning, manifesting in pro-savings behaviour and prudent spending within their means.

Institutional intervention by various role players such as the financial-services industry, government and nongovernment agencies can contribute to the creation of a savings culture in South Africa. This should involve active government intervention by introducing legislation to enforce compulsory savings such as retirement funds, and also by providing savings incentives, including tax benefits in the form of rebates for long-term savings. Broad-based savings campaigns by financial organisations and institutions such as the Banking Association, Treasury, Reserve Bank and corporations could also contribute to raising saving awareness among consumers, and could encourage consumers to save by offering more attractive investment-return rates.

As part of the endeavour to cultivate a culture of saving among all segments of society, including lower-income consumers, it is also recommended that informal savings institutions such as stockvels and other savings clubs be encouraged and supported by financial institutions. The financial-services sector should find creative mechanisms for streamlining and incorporating savings practices such as stockvels into the formal savings arena to attract more consumers from the informal sector.

Therefore, the findings emerging from this study should be useful to the said institutions by providing a basis for setting guidelines in the development of consumer-savings-behavioural-prediction modelling based on consumer usage of financial products such as debt instruments. This could provide financial institutions with an opportunity to tailor their financial products according to consumers' financial needs as well as ensuring that customers' future financial security through the usage of appropriate savings tools.

5.7 LIMITATIONS OF THE STUDY

This is one of the few studies designed to measure the relationship between the usage of debt instruments and usage of savings tools in South Africa using data from a nationwide survey. The first limitation of this study stems mainly from the dichotomous data gleaned through a research instrument, which used nominal measurements scales regarding consumer usage of certain debt instruments and savings tools. This led to the unavailability of data regarding the actual amounts that consumers spend on specific debt instruments, and actual the amounts that they have in their savings tools. Information of this nature could have added more insight into the actual value and the importance of the debt instruments and savings tools when analysing the usage trends and patterns of the debt instruments and savings tools used by consumers.

The second limitation is perennially inherent in typical research surveys of which this study was no exception, and that is the issue of a limited sample size. A sample size is subjected to a number of constraints, which include research costs, time to complete the research process and issues of capacity to conduct the fieldwork. Other survey errors

that impacted negatively on the sample size included errors of estimation such as non-response errors in the form of refusals, and unavailability of targeted respondents. A much bigger sample in this study would have been preferred if it were not due to the above constraints.

The third limitation is that study was not originally designed to test the relationship between debt instruments and savings tools. The study comprises a form of data mining of the original CFVI study.

5.8 FURTHER RESEARCH

Literature shows that studies that have been conducted on the topic of consumer savings and debt focus mainly on savings and debt patterns, trends and the drivers of these trends. It is for this reason that there is a need for further research on the predictive effects of debt usage on savings levels among consumers, especially in South Africa. This study sought to extend the analysis of the PFM theory and by integrating empirical findings using logistic regression to show that there is a significant relationship between the usage of savings tools and debt instruments.

Benefit may be derived from further investigation in the field of PFM, particularly regarding the following:

- the motives and drivers for a high usage of certain debt instruments, as opposed to savings tools, by consumers
- the extent to which financial-literacy education aimed at encouraging a culture of saving can impact on consumers' debt levels and instil financial discipline among consumers. and
- the influence of dynamic consumer demographic attributes on spending and savings behaviour leading to the high debt levels of certain consumer segments

5.9 CONCLUDING REMARKS

This study contributes to the body of knowledge on PFM and has endeavoured to highlight some of the underlying dynamics of low savings and a high usage of debt among South African consumers in the context of PFM. The findings have shown that a higher take-up of debt instruments and lower savings could be detrimental to consumers' financial wellness and future financial security, thus subjecting the consumers to a state of financial vulnerability and despondency. Consumers should strive to consume less than their income by reallocating existing resources from consumption to saving and/or by increasing resource inflows. Although much emphasis was placed on the role of financial literacy in PFM to enable effective financial planning, it should undoubtedly be acknowledged that self-discipline and fortitude to resist the temptation to spend excessively and live beyond one's means is a prerequisite for instilling a culture of saving.

BIBLIOGRAPHY

Ahmed, Z.U. Ismail, I. Sohail, M.S. Tabsh, I. Alias, H. 2010. Malaysian consumers' credit card usage behaviour. *Asian Pacific Journal of Marketing and Logistics*, 22(4), pp. 528-544.

Altfest, L. 2004. Personal financial planning: origins, developments and a plan for future direction. *American Economics*, 48(2), pp. 53-60.

Anders, B. & Crawford, TM. 2005. Financial literacy: CPAs can make a difference. *The CPA Journal*, 75(9), p.6

Anthes, W. L. (2004). Financial illiteracy in America: a perfect storm, a perfect opportunity. *Journal of Financial Service Professionals*. 58, pp.49-56.

ASISA, see Association for Savings and Investment South Africa.

Association for Savings and Investment South Africa (ASISA). 2010. *ASISA launches think tank to help grow SA savings*. [press release], 15 July 2010, Available at: <<http://www.asisa.co.za/index.php/media-centre/media-release.html>> [Accessed 20 April 2011].

Association for Savings and Investment South Africa (ASISA). 2011. *Are your affairs in order should death come knocking?* [press release], 25 January 2011, Available at: <<http://www.asisa.co.za/index.php/media-centre/media-release.html>> [Accessed 20 April 2011].

Betti,G. Dourmashkin, N. Rossi, M. & Pin Yin, Y. 2007. Consumer over-indebtedness in the EU: measurement and characteristics. *Journal of Economic Studies*, 34(2), pp. 136-256.

Braunstein, S. & Welch, C.2002. Financial literacy: An overview of practice, research, and policy. *Federal Reserve Bulletin*, November issue, pp. 445-457.

Bryant, W. K. & Zick, D.C. 2006. *The economic organization of the household*. 2nd ed. New York: Cambridge University Press.

Business Report. 2010. SA faces disaster over savings, [Online] (Last updated 15.45 on 7 September 2010) Available at:

<<http://www.busrep.co.za/index.php?from=rss&fArticleId=5636823>> [Accessed 7 September 2010].

Buthelezi, L. 2011. Consumer vulnerability increases in third quarter. *Business Report*, [Online] (Last updated 06:04am on 18th January 2011) Available at:

<<http://www.iol.co.za/business-news/consumer-vulnerability-increases-in-third-q>>

[Accessed 11 February 2011].

Cameron, B. 2009a. Most South Africans are not saving at all. *Saturday Star*, 28 Nov. p. 5.

[pdf] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Cameron, B. 2009b. Recession hits use of financial products. *Saturday Star*, 28 Nov. p. 5.

[pdf] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Cameron, B. & Moodley-Isaacs. 2010. Save yourself and help your country. *Saturday Star*, 24 July, p. 1 [Pdf] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Comins, L. 2009. Household savings dropping: Younger generations are spenders, not savers. *Daily News*, 26 Nov. p. 3 [Pdf]. Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Curry, S.R. 2007. Debt overload: seven ways to pay it off, plus warning signs that you're in over your head. *Black Enterprise*, 37(11), p. 215.

Dlamini, P. 2010. Secure savings option: bonds boost state expenditure. *Sowetan*, 27 Sept.p.15 [pdf]. Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 3 February 2011].

Driver, S.S. 2010. *Personal finance: a guide to money and business*. New York: Marshall Cavendish.

ECRI & PFRC, see European Credit Research Institute and Personal Finance Research Centre.

European Credit Research Institute and Personal Finance Research Centre. 2008. *Consumer Financial Vulnerability*. [pdf] ECRI & PFRC. Available at:
<http://www.genworth.eu/content/etc/medialib/genworth_uk/UK_PDFs.Par.38073.File.d at/Technical_Report_Consumer_Financial_Vulnerability.pdf> [15 February 2011].

Faerber, E. 2006. *All about investing: the easy way to get started*. New York: McGraw-Hill.

Financial Planning Institute. 2011. *What is financial planning?* [Press release], 22 March 2011, Available at:
<<http://www.fpi.co.za/Public/AboutFinancialPlanning/WhatisFinancialPlanning/tabid/248>
> [Accessed 22 March 2011].

FinMarkTrust, 2010. *Consumer Financial Vulnerability Index: third quarter 2010*. [pdf] Jhb: Finmark Trust. Available at:
<http://www.finmark.org.za/pages/Research-and-Publications/Research-Reports.aspx?randomID=1872482a-81cb-4d6b-82ef-98c524fd0400&linkPath=7&IID=7_1>
[Accessed 08 February 2012].

Fischer, C. 2010. The recession had some benefits. *Star*, 21 Jan. p. 13 [pdf]. Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Fisher, J.P. 2010. Gender differences in personal savings behaviours. *Journal of Financial Counseling and Planning*. 21(1), p. 14 [pdf]. Available at:
<<http://proquest.umi.com/pqdweb?did=2080645731&Fmt=3&clientId=27625&RQT=309>>
[Accessed 12 January 2011].

Garman, E.T. & Fogue, R.E. 2008. *Personal finance*. 9th ed. Canada: South-Western Cengage Learning.

Garson, G.D. 2010. *Statnotes: Topics in Multivariate Analysis*. [online] Available at:
<<http://faculty.chass.ncsu.edu/garson/PA765/logistic.htm>>[Accessed 27 July 2011].

The Genworth Index. 2008. *Measuring consumer financial vulnerability in 12 European markets* [Online]. Available at:

http://www.genworth.co.uk/content/genworth/uk/en/About_Us/research/The_Genworth_Index.html [Accessed 9 September 2010].

Genworth Financial 2010. *The Genworth Index: measuring consumer financial vulnerability in 12 European markets*. Volume 4, 4th Quarter [Online]. Available at:

http://www.genworth.co.uk/content/genworth/uk/en/About_Us/research/The_Genworth_Index.html [Accessed 20 August 2011]

Hair, J.F. Anderson, R.E. Tatham, R.L. & Black, W.C. 1998. *Multivariate data analysis*. 5th ed. New Jersey: Prentice Hall.

Hassan Al-Tamimi, H.A. & Bin Kalli, A. 2009. Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance*, 10(5), pp. 500-516.

The Herald. 2009. Consumer debt a big concern. 13 Jan. p. 7 [Pdf]. Available at:

<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>

[Accessed 10 March 2011].

Hirsch, B. 2010. Stick to basics for a solid investment plan. *Business Day*, 30 Aug.p. 14. [pdf]. Available at:

<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>

[Accessed 23 February 2011].

Hirsch, B. 2011. Debt management needs to be addressed in workplace. *Business Day*, 24 Jan. p. 10 [pdf]. Available at:

<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>

[Accessed 23 February 2011].

Hyun Cho, S. 2009. Role of saving goals in savings behavior: regulatory focus approach. Ph.D. thesis, College of Education and Human Ecology. The Ohio State University [pdf]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>>

[Accessed 06 September 2010].

Investment and Financial Services Association Ltd. 2008. *The economic impact of increased national servings*. Sydney: Econtech.

Jack, S.C. 2009. A phenomenological study of the lived experience of individual savings rates and how they impact life satisfaction. Ph..D. thesis, Capella University [pdf]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>>

[Accessed 6 September 2010].

Jacobs, G. & Smith, E.M. 2010. Materialism and indebtedness of low income consumers: Evidence from South Africa's largest credit granting catalogue retailer. *South African Journal of Business Management*, 41(4), pp.11-33.

Joehnk, M.D. Billingsley R.S. & Gitman L.J. 2011. *Planning your personal finances*. 12th ed. Canada: South-Western Cengage learning.

Kamhunga, S.2 010. Low income earners still find it hard to save. *Business Day*, 2 Dec. p. 01.

[Pdf]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Kariithi, N.K. 2010. *The Penguin dictionary of financial terms*. Johannesburg: Penguin Books.

Keeton, G. 2010. SA needs a different receipt for its savings cake. *Business Day*, 06 December, p.9. [Pdf]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Keynes, J.M. 2008. *The general theory of employment, interest and money*. New Delhi: Atlantic.

Kim, M.H. 2010. The determinants of personal savings in the U.S. *Journal of applied Business Research*, 25(5), p. 35.

Knight, L.G. & Knight, R.A. 2000. Counseling clients on credit. *Journal of Accountancy*, 189(2), pp. 61-70.

Kotzé, L. 2006. Debt and the management of personal finances. M.Com. dissertation, University of the Free State, Bloemfontein.

Kuhn, K. 2010. *Note on household wealth in South Africa*. [pdf] Pretoria: SARB. Available at:

<<http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/3640/Note%20-%20Note%20on%20household%20wealth%20in%20South%20Africa.pdf>>

[Accessed 09 February 2012].

Le Roux, E.E., De Beer, A.A., Ferreira, E.J., Hubner, C.P., Jacobs, H., Kritzinger, A.A.C., Labuschagne, M., Stapelberg, J.E. & Venter, C.H. 1999. *Business management: A practical interactive approach*. Sandton: Heinemann.

Losby, J.L. 2008. Savings strategies: decisions and sacrifices low-income parents make secure a better future for their families. Ph.D. thesis, University of Iowa. Iowa [pdf]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>>
[Accessed 09 July 2010].

Masilela, E. 2009. SA must save more. *Financial Mail*, 17 July p. 16. [Pdf] Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Modimoeng, K. 2009. Research shows low level of savings culture. *The Times*, p. 13,
[Pdf] 26 November. Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Monden, K.R. 2009. Applying positive psychology to the examination of factors related
to savings. Ph.D. thesis, University of Kansas. Kansas [Online]. Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>>
[Accessed 09 June 2010].

Moodley-Isaacs, N, 2010a. Survey shows we're still poor savers, but are managing to
service our debt. *Saturday Star*, 24 July. p. 1. [pdf] Available at:
<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>
[Accessed 23 February 2011].

Moodley-Isaacs, N. 2010b. Our money woes could end in a perfect storm. *Personal
finance*, [Online] (Last updated 15:42 PM on the 24th July 2010) Available at:
<<http://www.iol.co.za/business/personal-finance/news/our-money-woes-could-end-in-perfect-storm-1.998574>> [Accessed 10 March 2011].

Naong, M.N. 2009. Stockvels: a possible panacea for fostering a savings culture?
Journal for New Generation Sciences. 7(2), pp. 248-266. [Online].
Available at:

<http://firstsearch.oclc.org/WebZ/FSFETCH?fetchtype=fullrecord:sessionid=fsapp5-51004>.. [Accessed at 24 January 2012].

National Credit Regulator (NCR). 2010 *Consumer credit market report*. [Pdf]. Available at:

<http://www.ncr.org.za/publications/Consumer%20Credit%20Market%20Report/CCMR_September_2010.pdf> [Accessed 22 August 2011]

National Credit Regulator (NCR). 2007-2012 *Consumer credit market report*. [Pdf]. Available at:

<http://www.ncr.org.za/index.php?option=com_content&view=article&id=8> [Accessed 20 July 2011]

Nguabanchong, A 2004. The analysis of gender effect on savings: Evidence from urban poor home-based households in Thailand. Ph.D. thesis, American University. Washington DC [Online]. Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>> [Accessed 09 June 2010].

Nieman, G. & Bennett, A. 2002. *Business management: A value chain approach*. Pretoria: Van Schaik.

OECD, see Organisation for Economic Co-operation and Development.

Organisation for Economic Co-operation and Development (OECD), 2005. Analysis of issues and policies: analysis of issues and policies. *Financial Market Trends*. 89, pp 109-231 [Online]. Available at:

http://www.oecd-ilibrary.org/finance-and-investment/improving-financial-literacy_fmt-v [Accessed 25 January 2012].

Old Mutual Savings Monitor. 2010a. Planning ahead shortens the road to financial success. [Online]. Available at:

<<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010b. Savings goals key theme for 2010. [Online]. Available at: <<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010c. Making a habit of saving. [Online]. Available at: <<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010d. SA – It's time to save! Debt is becoming a huge problem! [Online]. Available at: <<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010e. SA is in recovery mode [Online]. Available at: <<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010f. Savings nest-egg crucial, says SASI [Online]. Available at: <<http://www.oldmutual.co.za/markets/old-mutual-savings-monitor.aspx>>

[Accessed 8 September 2010].

Old Mutual Savings Monitor. 2010g. Old Mutual Savings Monitor Survey results [Online]. Available at: <http://www.oldmutual.co.za/personal/financial-planning/old-mutual-savings-monitor/previous-results.aspx> [Accessed 9 September 2010]

O'Neill, B. 2002. Twelve key components of financial wellness. *Journal of Family and Consumer Sciences*, 94(4), p. 53.

Pearson, W.R. 2010. *Statistical persuasion: how to collect, analyze, and present data accurately, honestly, and persuasively*. London: Sage.

Peck, R. Olsen, C. & Devore, J. 2008. *Introduction to statistics and data analysis*. 3rd edition. Belmont: Thomson Brooks/Cole.

Peng, C.J. Lee, L.L. & Ingersoll, G.M. 2002. An introduction to logistics regression analysis and reporting. *The journal of Educational Research*, 96(1), pp. 3-14.

Prinsloo, J.W. 2000. *The savings behavior of the South African economy*. Pretoria: South African Reserve Bank.

Rabenowitz, P. Botha, M. Goodall, B. Geach, W. Du Preez, L. and Rossini, L. 2010. *The South African financial planning handbook*. Durban : LexisNexis.

Raijas, A. Lehtinen, A. & Leskinen, J. 2010. Over-indebtedness in the Finnish Consumer Society. *Journal of Consumer Policy*, 33, pp. 209-223.

Redhead, R. 2008. *Personal finance and investments: a behavioural finance perspective*. London: Routledge.

Remund, D.L. 2010. Financial literacy explicated: the case for a clearer definition in an increasingly complex economy. *Journal of consumer affairs*, 44(2), pp. 276-295.

SAARF, see South African Advertising Research Foundation.

Sage, R.A. & Grable, J.E. .2010. Financial numeracy, net worth, and financial management skills: client characteristics that differ based on financial risk tolerance. *Journal of Financial Services Professionals*. November issue, pp. 57-65.

SARB, see South African Reserve Bank.

SASI, see South African Savings Institute.

Saturday Star. 2010a. How to preserve your savings until retirement. 16 Oct. p. 5.

[pdf] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Saturday Star, 2010b. National Savings Month: get into the savings habit. 24 Jul. p. 6.

[pdf] Available:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>>

[Accessed 23 February 2011].

Saunders, M. Lewis, P. Thornhill, A. 2009. *Research methods for business students*. 5th ed. Harlow: Prentice Hall.

Schmidt-Hebbel, K. 2002. *What do we know about saving in the world?*

Central Bank of Chile. The World Bank.

Schmidt-Hebbel, K. & Servén, L. 2002. Financial Liberalization, Saving, and Growth. Banco de México Conference on Macroeconomic Stability, Financial Markets, and Economic Development. Mexico, DF, Nov. 12-13, 2002. Mexico.

Schooley, D.K. & Worden, D.D. 2010. Fueling the credit crisis: who uses consumer credit and what drives debt burden? *Business Economics*. 45, pp. 266–276.

Sekaran, U. & Bougie, R. 2010. *Research methods for business: a skill-building Approach*. Wiley: Chichester.

Shefrin, H.M. & Thaler, R. 1988. The behavioural life-cycle hypothesis. *Economic Inquiry*, 26(4), pp. 609–643.

South African Advertising Research Foundation. 2010. *All media and products survey 2009B (AMPS)*. Johannesburg.

South African Advertising Research Foundation. 2007-2011. *All media and products survey 2011 (AMPS)*. Available at:
<http://www.saarf.co.za/SAARF/freesaarfdata.asp> [Accessed 5 May 2012].

South African Reserve Bank, 2011a. *Financial Stability Review*. [pdf] Pretoria: SARB. Available at:
<<http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/4028/FSR%20March%202011.pdf>> [Accessed 08 February 2012].

South African Reserve Bank, 2011b. *Financial Stability Review*. [pdf] Pretoria: SARB. Available at:
<<http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/4865/FSR%20September%202011.pdf>> [Accessed 09 February 2012].

South African Reserve bank, 2011c. *Quarterly Bulletin*. Report no. 206. Pretoria: SARB.

South African Reserve bank, 2011d. *Quarterly Bulletin*. Report no. 261. Pretoria: SARB.

South African Reserve bank, 2006-2011. Banking sector data: BA 900 returns [Online]. Available at:
<http://www.resbank.co.za/RegulationAndSupervision/BankSupervision/Banking%20sector%20data/Pages/default.aspx> [Accessed July 2012].

South African Reserve Bank, 2010a. *Financial Stability Review*. [pdf] Pretoria: SARB. Available at: <http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/3952/FSR+March+2010.pdf> [Accessed 09 February 2012].

South African Reserve Bank, 2010b. *Financial Stability Review*. [pdf] Pretoria: SARB. Available at: <http://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/3953/FSR+Sept2010.pdf> [Accessed 09 February 2012].

South African Savings Institute. 2007. *Research and publications: savings presentation* [Online]. Available at: <http://www.savingsinstitute.co.za> [Accessed 02 May 2011].

South African Savings Institute. 2010a. *An overview of savings in South Africa* [Online]. Available at: <http://www.savingsinstitute.co.za> [Accessed 9 July 2010].

South African Savings Institute. 2010b. *Savings/Investment Vehicles* [Online]. Available at: <http://www.savingsinstitute.co.za> [Accessed 9 July 2010].

Stats SA, see Statistics South Africa.

Statistics South Africa. 2007. *Community survey (revised version)*. [pdf] Pretoria: Stats SA. Available at: <http://www.statssa.gov.za/publications/P0301/P0301.pdf> [Accessed 22 February 2012].

Statistics South Africa. 2011a. *Mid year population estimates*. [pdf] Pretoria: Stats SA. Available at: <http://www.statssa.gov.za/publications/P0302/P03022011.pdf> [Accessed 22 February 2012].

Statistics South Africa. 2011b. Quarterly labour force survey: Quarter 3. [pdf] Pretoria: Stats SA. Available at:

<http://www.statssa.gov.za/news_archive/press_statements/QLFS%20Q3-2011%20Press%20statement.pdf> [Accessed 22 February 2012].

Statisticss South Africa. 2011c. *Statistics of civil cases for debt*. [pdf] Pretoria: Stats SA. Available at:

<<http://www.statssa.gov.za/publications/P0041/P0041November2011.pdf>> [Accessed 22 February 2012].

Stokes, G. 2010a. Save now and secure the future. *Mail and Guardian*, 29 Jul.p. 45. [Online] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>> [Accessed 23 February 2011].

Stokes, G. 2010b. Start saving young and don't stop. *Mail and Guardian*, 29 Jul.p. 47. [Online] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>> [Accessed 23 February 2011].

Stokes, G. 2010c. Retirement funds: the three golden rules of savings. *Mail and Guardian*, 29 April p. 24. [Online] Available at:

<<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=7>> [Accessed 23 February 2011].

Struwig, F.W. & Plaatjes, W. 2007. Developing a framework to investigate the personal financial management knowledge of individuals. *SAJEMS*. 10(1) pp. 21-32.

Swart, N. 1997. *How to plan your financial matters after school and university*. Pretoria: Unisa Press.

Swart, N. 2002. *Personal financial management: the South African guide to personal financial planning*. Cape Town: Juta.

Swart, N. 2003. *Managing your money: basic financial life skills for South Africans*. Pretoria: Van Schaik.

Swart, N. 2005. Why financial literacy is a complete failure. *Management Today*. 21(2), pp. 48-50 [Online]. Available at:
<<http://firstsearch.oclc.org/WebZ/FSPage?pagename=record:pagetype=print:entityprinti>
[ng](#)> [23 February 2011].

Tshombe, P. 2010. Household non-retirement savings and taxation. In: The Department of National treasury, *Taxation and Savings Workshop*, South Africa 14-15 September 2010. Pretoria: Department of National Treasury.

Tustin, D.H. 2010. *Household saving behaviour in Gauteng*. Pretoria: Unisa, Bureau of Market Research.

Tustin, D.H., Ligthelm, A.A., Martins, J.H. & Van Wyk, H., 2005. *Marketing Research in Practice*. Pretoria: Unisa Press.

Van Aardt, C. 2010. *A consumer financial vulnerability (CFV) index for South Africa*. Pretoria: Unisa, Bureau of Market research.

Van der Walt, B.E. & Prinsloo, J.W., 1995. *The compilation and importance of household debt in South Africa*. [pdf] Pretoria: SARB. Available at:
<<http://www.resbank.co.za/Publications/ResearchPapers/Pages/OccasionalPapers.aspx>
[x](#)>[Accessed 2 April 2011].

Verhoef, G., 2001. Savings and survival in a modern African economy: informal savings organization and poor people in South Africa. *Historia*. 46(2) pp. 519-542 [pdf]. Available at:

<http://firstsearch.oclc.org/WebZ/FSPage?pagename=record:pagetype=print:entityprintin g...> [Accessed 24 January 2012].

Wells, C., 2000. *An integrative model of psychological and economic factors to better predict consumer savings behavior: Theoretical foundations and empirical investigation*. Georgia Institute of Technology. Ph.D. Georgia [Pdf]. Available at:

<http://library.unisa.ac.za/infoweb/sbj-db-grp-placements-list.html?placement=5>

[Accessed 9 September 2010].

Worthington, I & Britton, C. 2003. *The business environment*. 4th ed. Harlow: Prentice Hall.

APPENDIX

TABLE 6.1

SIGNIFICANT AND NON-SIGNIFICANT VARIABLES AND HOSMER-LEMESHOW GOODNESS-OF-FIT TEST

Sig.	SAVINGS TOOLS																
	Savings account like Mzanzi	Savings account other than Mzanzi	Savings account/investment account (ie fixed-term investment)	Unit trusts	Shares (including employment funds, ie Sasol and Vodacom)	Endowment/savings/investment/retirement annuity policy	Funeral insurance	Life cover policy	Medical insurance	Medical fund	Stokvel/burial society	Retirement policy/pension fund	Short-term insurance (ie household insurance)	Educational plan/policy	Saving money at home	Giving money to a person I can trust (money guard)	Government retail bonds
DEBT INSTRUMENTS																	
Credit card	0.251	0.002	0.006	0	0	0.139	0.308	0.04	0.11	0	0.01	0.564	0.078	0.803	0.569	0.83	0.912
Overdraft on bank account	0.367	0.744	0.092	0.636	0.879	0.564	0.966	0.183	0.742	0.937	0.484	0.905	0.601	0.107	0.28	0.879	0.387
Personal loan from financial institution like a bank	0.036	0.323	0.347	0.1	0.343	0.015	0.167	0.191	0.537	0.12	0.882	0.183	0.75	0.043	0.266	0.445	0.384
Home loan/mortgage	0.092	0.602	0.04	0.075	0.585	0.003	0.878	0.001	0.479	0.066	0.005	0.015	0.003	0.417	0.775	0.068	0.117
Borrowed against a policy	0.001	0.001	0.945	0.348	0.764	0.957	0.436	0.992	0.474	0.411	0.015	0.26	0.944	0.065	0	0.682	0.598
Car finance	0.104	0.009	0.854	0.494	0.539	0.799	0.745	0.81	0.033	0.518	0.991	0.098	0.001	0.135	0.721	0.503	0.436
Study/educational loan	0.238	0.907	0.436	0.388	0.313	0.191	0.083	0.028	0.008	0.823	0.018	0.015	0.602	0	0.878	0.453	0.639
Borrowed against pension fund	0.217	0.265	0.368	0.285	0.681	0.193	0.593	0.005	0.28	0.578	0.98	0.001	0.007	0.381	0.458	0.002	0.175
Store/retail card	0.727	0	0.036	0.226	0.149	0.616	0	0.472	0.045	0.211	0.005	0.041	0.033	0.015	0.3	0.192	0.998
Credit from a furniture store	0.482	0.008	0.48	0.814	0.105	0.555	0.099	0.015	0.182	0.199	0.705	0.273	0.531	0.236	0.246	0.237	0.392
Personal loan - from Mashonisa, micro-loans (informal)	0.724	0.462	0.897	0.997	0.254	0.085	0.435	0.12	0.06	0.638	0.404	0.15	0.249	0.402	0.479	0.896	0.997
Loan from stokvel/burial society	0.088	0.003	0	1	0.731	0.157	0.465	0.057	0.001	0.313	0	0.468	0.005	0.184	0.734	0.588	0.996
Borrowed from family or friends	0.233	0.362	0.333	0.406	0.175	0.005	0.476	0.049	0.448	0.001	0.179	0.219	0.042	0.373	0.181	0.308	0.223

Hosmer and lemeshow test	0.867	0.781	0.013	0.673	0.578	0.383	0.668	0.006	0.177	0.024	0.722	0.069	0.569	0.197	0.183	0.001	0.9
--------------------------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-----

TABLE 6.2
UNSTANDARDIZED REGRESSION β -COEFFICIENTS

β	SAVINGS TOOLS																
	Savings account like Mzansi	Savings account other than Mzansi	Savings account/investment account (ie fixed-term investment)	Unit trusts	Shares (including employment funds, ie Sasol and Vodacom)	Endowment/savings/investment/retirement annuity policy	Funeral insurance	Life cover policy	Medical insurance	Medical fund	Stokvel/burial society	Retirement policy/pension fund	Short-term insurance (ie household insurance)	Educational plan/policy	Saving money at home	Giving money to a person I can trust (money guard)	Government retail bonds
Credit card	0.266	0.698	0.595	1.77	1.085	0.358	0.214	0.466	0.393	0.975	-0.638	0.126	0.437	-0.082	-0.152	0.061	0.073
Overdraft on bank account	-0.33	-0.123	0.55	0.216	0.061	-0.203	-0.015	0.468	0.118	-0.026	0.277	0.04	0.184	0.68	-0.496	0.063	-1.021
Personal loan from financial institution like a bank (formal)	0.602	-0.295	0.269	-0.89	-0.391	0.738	0.396	0.403	-0.207	0.447	0.048	0.389	0.106	0.7	0.36	0.261	0.678
Home loan/mortgage	0.472	0.154	0.539	0.714	0.179	0.811	0.042	0.885	0.205	0.486	-0.97	0.654	0.824	-0.312	0.098	0.593	1.17
Borrowed against a policy	1.485	-1.496	-0.031	0.593	0.169	0.025	0.395	-0.005	0.339	0.375	-1.583	-0.536	0.035	0.925	1.634	0.215	0.561
Car finance	-0.471	0.8	-0.047	-0.274	0.193	-0.068	-0.086	0.063	0.574	0.162	-0.003	0.415	0.88	0.529	-0.122	-0.226	-0.629
Study/educational loan	-0.507	-0.046	0.293	0.532	0.517	0.54	0.696	0.904	1.136	0.089	0.973	0.958	-0.255	2.094	-0.068	-0.386	-0.585
Borrowed against pension fund	0.556	-0.497	0.405	0.663	-0.253	0.633	0.258	1.401	0.51	0.261	-0.013	1.661	1.246	-0.653	0.377	1.392	1.26
Store/retail card	0.073	0.76	0.435	-0.462	-0.42	0.119	0.74	0.158	0.484	0.257	0.576	0.418	0.527	0.794	0.24	0.334	-0.002
Credit from a furniture store	0.174	0.634	0.172	0.112	-0.656	0.165	0.373	0.641	0.386	0.321	-0.093	0.273	-0.191	0.392	0.302	0.339	0.595
Personal loan – from Mashonisa, micro-loans (informal)	-0.127	-0.23	-0.05	-17.85	-1.211	0.742	-0.259	-0.747	-1.317	-0.194	0.278	-0.622	0.558	-0.503	-0.271	-0.054	-17.595
Loan from stokvel/burial society	-0.563	0.828	0.995	0	0.17	0.486	-0.197	0.607	-2.584	0.305	2.851	-0.231	-1.622	0.523	-0.109	0.185	-17.292
Borrowed from family or friends	0.267	-0.184	-0.254	-0.495	-0.621	-0.966	-0.154	-0.574	-0.239	-0.9	0.297	-0.314	-0.707	-0.346	0.317	0.28	0.752

TABLE 6.3
EXPONENTS OF β - ODDS RATIO

Exp(β) t	SAVINGS TOOLS																
	Savings account like Mzanzi	Savings account other than Mzanzi	Savings account/investment account (ie fixed-term investment)	Unit trusts	Shares (including employment funds, ie Sasol and Vodacom)	Endowment/savings/investment/retirement annuity policy	Funeral insurance	Life cover policy	Medical insurance	Medical fund	Stokvel/burial society	Retirement policy/pension fund	Short-term insurance (ie household insurance)	Educational plan/policy	Saving money at home	Giving money to a person I can trust (money guard)	Government retail bonds
Credit card	1.305	2.01	1.814	5.869	2.96	1.43	1.238	1.593	1.481	2.652	0.528	1.134	1.548	0.922	0.859	1.063	1.076
Overdraft on bank account	0.719	0.884	1.733	1.242	1.063	0.816	0.985	1.596	1.125	0.974	1.32	1.041	1.202	1.974	0.609	1.065	0.36
Personal loan from financial institution like a bank	1.825	0.745	1.308	0.411	0.676	2.093	1.486	1.496	0.813	1.564	1.049	1.475	1.112	2.014	1.433	1.298	1.971
Home loan/mortgage	1.604	1.166	1.714	2.043	1.196	2.249	1.043	2.424	1.228	1.625	0.379	1.922	2.28	0.732	1.103	1.81	3.221
Borrowed against a policy	4.414	0.224	0.97	1.809	1.184	1.026	1.484	0.995	1.404	1.456	0.205	0.585	1.035	2.521	5.126	1.239	1.753
Car finance	0.624	2.226	0.954	0.76	1.213	0.934	0.917	1.065	1.775	1.176	0.997	1.515	2.411	1.697	0.885	0.798	0.533
Study/educational loan	0.602	0.955	1.341	1.702	1.676	1.717	2.006	2.469	3.114	1.093	2.646	2.607	0.775	8.114	0.934	0.68	0.557
Borrowed against pension fund	1.744	0.608	1.5	1.94	0.776	1.884	1.295	4.06	1.665	1.298	0.987	5.266	3.477	0.52	1.458	4.023	3.526
Store/retail card	1.076	2.139	1.544	0.63	0.657	1.126	2.097	1.171	1.622	1.293	1.779	1.519	1.694	2.211	1.271	1.397	0.998
Credit from a furniture store	1.189	1.885	1.188	1.118	0.519	1.18	1.452	1.899	1.472	1.379	0.911	1.314	0.826	1.479	1.353	1.403	1.814
Personal loan - from Mashonisa, micro-loans (informal)	0.881	0.794	0.951	0	0.298	2.099	0.772	0.474	0.268	0.824	1.32	0.537	1.747	0.605	0.763	0.947	0
Loan from stokvel/burial society	0.569	2.289	2.705	1	1.185	1.626	0.821	1.835	0.075	1.356	17.306	0.793	0.197	1.687	0.897	1.204	0
Borrowed from family or friends	1.306	0.832	0.776	0.609	0.537	0.381	0.857	0.563	0.787	0.406	1.346	0.73	0.493	0.707	1.373	1.324	2.12

