

Borrower Education and Non-payment Behaviour in Low Income
Homeowners: A Case Study of Protea Glen, Johannesburg in
South Africa

by

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**A thesis submitted to the Faculty of Engineering and the Built Environment,
University of the Witwatersrand, Johannesburg, in fulfilment of the
requirements for the degree of Doctor of Philosophy (PhD)**

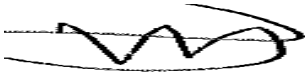
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Johannesburg, 2012

DECLARATION

I declare that this thesis is my own unaided work. It is being submitted for the Degree of Doctor of Philosophy to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

V. Moss

A handwritten signature in black ink, appearing to be 'V. Moss', written over a horizontal line.

(Signature)

DEDICATION

This research work is dedicated to my family and most importantly in memory of my brother, Mbulelo Ntlama-Siwayi, who was not only a relative to me but a dear friend.

May his soul rest in peace.

ACKNOWLEDGEMENTS

This research study could not have been achieved without the support of a range of people and stakeholders who contributed in different ways and provided essential inputs, from the conceptualisation phase of the study right through to the implementation and analysis stages.

Primarily, the study would not have been possible without the financial support provided by the National Housing Finance Corporation (NHFC). I am very thankful to the NHFC for the use of its facilities during the writing phase of this thesis. I would like also to thank the NHFC CEO, Mr Samson Moraba, for introducing me to borrower education when he together with Ms Salome Sengani tasked me in 2005 to lead the Borrower and Consumer Education Work Stream during the Financial Sector Charter Negotiations with the Banking Association of South Africa (BASA).

I would like to acknowledge the essential role that my supervisor, Prof Aly Karam, played in making this work possible. His insightful inputs and comments have certainly contributed to the quality of this work. No doubt his caring and supportive attitude provided me with the necessary strength and resolve when these were needed.

I would also like to acknowledge Prof Luxien Ariyan for his willingness to assist in improving the overall quality of this thesis.

A special word of thanks is due to Professors Marie Huchzermeyer and Fana Shilongonyone for their motivation and words of encouragement and support.

I am equally grateful to all other members of the School of Architecture and Planning Committee whose comments and observations have shaped the structure and guided the focus of this work.

Appreciation also goes to my former manager Dr Morgan Pillay, who inspired me to attempt my PhD studies.

I would like to acknowledge in a very special way the fieldworkers who, through my supervisor, provided truly quality data, often under the very difficult circumstances we had endured. The important role of this primary research and data collection would not have been possible without the research and technical assistance provided by the School of Planning and Development researchers Clive Polile and Tumisang Ntlaloe.

Moreover, my appreciation goes to the Protea Glen, Soweto community and in particular the participants in the field work research process. Thank you for freely giving us your time and for sharing your experiences of the housing process. Without your willing participation it would have been impossible to understand the borrowers' views, sentiments, inner feelings and mind-sets.

I would like to thank Ms Mercy Nduku who assisted a great deal with the capturing and statistical analysis of the raw data. Mercy's expertise was invaluable in the analysis phase.

Last but not least, to all those friends and colleagues who I have not mentioned by name but whose contributions have been invaluable; thank you ever so much - this work would not have been possible without your support.

ABSTRACT

Borrower Education and Non-payment Behaviour in Low income Homeowners in South Africa: A Case Study of Protea Glen, Johannesburg.

This investigation was largely motivated by the high level of evictions and repossessions for non-payment of mortgages in the Protea Glen area in Johannesburg, Gauteng, as reported by the Human Rights Commission Inquiry in 2007/8. In investigating this non-payment behaviour the researcher employed quantitative tools and qualitative methods. The research approach was to measure and draw sample size from the units of population, conduct interviews and capture and analyse data through the use of SPSS as a suitable statistical instrument. Furthermore, the aim was to employ a suitable model for measuring the relationship between dependent and independent variables and also to highlight the limitations of the study.

The study revealed several interesting empirical findings that largely invalidated the founding hypotheses, despite existing theoretical frameworks - underpinned by various scholars - that sought to corroborate these same hypotheses.

The research findings have however supported the premise that households reporting poor relationships with lenders were susceptible to non-payment behaviour. The rest of the secondary hypotheses were rejected by the empirical findings, viz. that there was no correlation between the level of formal education and non-payment behaviour; the link between propensity to default and the age of homeowners were also invalidated.

From these findings, it can be demonstrated that there is a critical need for mitigating measures to remedy the identified shortcomings in this sector. There appears to be a need for strategic interventions and shifts in borrower education guiding principles towards achieving the desired outcome. Such interventions and shifts should advocate and advance the education and empowerment of the borrowers while encouraging lender accountability.

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ABBREVIATIONS AND ACRONYMS

AAPS	African Association of Political Science
ABA	American Bankers Association
ABSA	Amalgamated Banks of South Africa
AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
BASA	Banking Association of South Africa
BBC	British Broadcasting Corporation
BCC	Behaviour Change Communication
BEE	Black Economic Empowerment
BERR	Business Enterprise and Regulatory Reform
BRICS	Brazil, Russia, India, China and South Africa
CAHF	Centre for Affordable Housing Finance
CENFRI	Centre for Financial Sector Regulation and Inclusion
CFVI	Consumer Financial Vulnerability Index
CLG	Communities and Local Government
CMHC	Canada Mortgage and Housing Corporation
CML	Council of Mortgage lenders
CoCCE	Code of Conduct on Credit Extension
CPA	Consumer Protection Act
CPF	Consumer Protection Forum
CPI	Consumer Price Inflation
CPIX	Consumer Price Index

CPMA	Consumer Protection and Market Authority
CRA	Community Reinvestment Act
CRB	Community Reinvestment Bill
DoH	Department of Housing
DHS	Department of Human Settlements
DSA	Development Southern Africa
EAAB	Estate Agency Affairs Board
EIR	Executive Intelligence Report
EPA	Environmental Protection Agency
ETU	Education and Training Unit
FANNIE MAE	Federal National Mortgage Association
FAO-UN	Food and Agriculture Organisation United Nations
FCIC	Financial Crisis Inquiry Commission
FDIC	Federal Deposit Insurance Corporation
FFC	Fidelity Fund Certificate
FLISP	Finance Linked Individual Subsidy Programme
FNB	First National Bank
FREDDIE MAC	Federal Home Mortgage Corporation
FSB	Financial Services Board
FSC	Financial Sector Charter
FSM	Financial Services Measure
FSMs	Financial Services Markets
GCIS	Government Communications and Information System
GSEs	Government Sponsored Enterprises

HFI	Housing Finance International
HIV	Human Immunodeficiency Virus
HLMDA	Home Loan and Mortgage Disclosure Act
HREC	Human Research Ethics Committee
HSS	Housing Subsidy System
HUD	Housing Urban Development
ICD	Independent Complaints Directorate
IHFP	International Housing Finance Programme
IPSA	Intellectual Property Students Association
ITUC	International Trade Union Federation
IUHF	International Union for Housing Finance
LDCs	Less Developed Countries
LSHTM	London School of Hygiene and Tropical Medicine
LSM	Living Standard Measure
LTV	Loan to Value Ratio
MBS	Mortgage Backed Securities
MDGs	Millennium Development Goals
MP	Member of Parliament
MPC	Marginal Propensity to Consume
NCA	National Credit Act
NCC	National Consumer Commission
NCF	National Consumer Forum
NCR	National Credit Regulator
NCSS	National Council for Social Studies
NCT	National Consumer Tribunal

NEP	National Education Programme
NHBRC	National Home Builders Registration Council
NHFC	National Housing Finance Corporation
NHP	NEP National Housing Policy
NPLs	Non-Performing Loans
NRF	National Research Foundation
NVCC	Northern Virginia Community College
OCCC	Office of the Controller of the Currency
OECD	Organisation for Economic Cooperation and Development
OTS	Office of Thrift Supervision
PHC	Primary Health Care
PIPs	Properties in Possession
PMG	Parliamentary Monitoring Group
RDP	Reconstruction and Development Programme
RGU	Robert Gordon University
SAARF	South African Advertising Research Foundation
SABC	South African Broadcasting Corporation
SAHF	South African Housing Foundation
SAHL	South African Home Loans
SAHRC	South African Human Rights Commission
SAIRR	South African Institute of Race Relations
SAPOA	South African Property Owners' Association
SAR	Southern Africa Report

SARS	South African Revenue Services
SARB	South African Reserve Bank
SDI's	Spatial Development Initiatives
SOWETO	South Western Townships
SPSS	Statistical Package for Social Sciences
STATS SA	Statistics South Africa
TRPM	Township Residential Property Market
UCT	University of Cape Town
UKCISA	United Kingdom Council for International Student Affairs
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
USB	University of Stellenbosch Business School
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WC	Western Cape
WEF	World Economic Forum
WS	Welfare System

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CHAPTER 1

Objectives and rationale for the study

1.1 Introduction

This study was motivated by a desire to ascertain the impact borrower education has on the propensity to default on home loans in low income households. In other words, the investigation sought to establish the importance of borrower empowerment programmes in view of non-payment behaviour. Such evidence would be invaluable given that public housing policy is increasingly viewing comprehensive borrower education as an important mechanism for preventing financial problems and promoting healthy ownership and responsible lender conduct. Furthermore, any credit provider extending and granting mortgage finance to a consumer risks default and foreclosure, making borrower education an essential mitigation instrument.

Nanda (1999), while recognising the importance of property as an important asset to alleviate poverty, argues that greater access to credit and ability to pay is critical to the improvement of the borrower's optimal use of the asset (Nanda:1999). In the absence of well-structured and targeted borrower education, Nanda's (1999) theory would not have the potential to realize its intended objectives, a view substantiated by Hornburg (2004), who asserts that financial counselling can affect the default decision by helping high risk potential borrowers to opt out of homeownership (Hornburg, 2004).

The skills taught in counselling to help borrowers qualify may also increase the likelihood of successful budgeting and debt repayment as well as preparing participants for navigating and heading off potential crises and avoiding default, further argues Hornburg (2004). A view that was later substantiated and extended by Carswell (2009). "The purpose of financial counselling interventions is to increase the probability of successful

homeownership by equipping families with money management, debt management and maintenance, and other skills” (Carswell 2009: 341).

This study examines the probability of risk of defaults as a result of the lack of borrower education, factoring in demographic and financial variables. Measured demographic variables include marital status, gender, age, employment sector and education level, while the measured financial variables include household income and interest rates. That kind of data allows us to construct a more detailed profile of homeowners, and to reveal secondary factors attributable to non-payment behaviour. In addition, the study seeks to discover whether banks have borrower education programmes aimed at empowering prospective homeowners and also to understand the type of relationship that exists between a lender (bank) and a borrower (homeowner).

The study seeks to add fresh impetus and critical and creative ideas to academic literature, with the specific intention of contributing to strategy, borrower education review processes, academic knowledge and the expansion of literature on the subject of housing in general and housing finance in particular, with a special emphasis on empowering homeowners. Lastly, the investigation envisages influencing debates and dialogues at policy making level, with a focus on the financial services sector and, in particular, the mortgage credit environment. When future borrower education related programmes, legislative frameworks and consumer protection measures are crafted and framed, the findings of this research could be explored as a point of reference.

1.2 Objectives of the study

The objectives of this research were as follows:

- To ascertain whether banks are offering borrower education to low income homeowners;
- To examine whether there is a relationship between a lack of borrower education and propensity to default;
- To find out whether the type of relationship and rapport between the borrower and the financier has an impact on the probability to default;
- To determine whether there is a relationship between variables such as age, income, interest rates and propensity to default; and
- To ascertain whether there is a relationship between formal academic education level and non-payment behaviour.

1.3 Justification for the study

In countries including the United States, United Kingdom, Canada and Australia, borrower education is usually referred to as financial literacy or financial counselling. Huston (2010) states that the terms financial literacy and financial education are often used interchangeably in the literature. She further asserts that few, if any scholars have attempted to define or differentiate these terms. Unlike health literacy, reasons Huston (2010), which is typically measured using one of three standardised tests. There are currently no standardised instruments with which to measure financial literacy (Huston, 2010).

Marcolin and Abraham (2006) (in Huston (2010) identify the need for research focused specifically on the measurement of financial literacy. Typically, financial literacy and/or financial knowledge indicators are used as inputs to model the need for financial education, surmises Huston (2010). The ability to understand the scope of a borrower education drive for low income homeowners in South Africa is constrained by the lack of

availability of relevant literature, especially research delineating the relationship between non-payment behaviour and borrower education.

Most available literature focuses only on the broader aspects of financial literacy, and is based on international models (e.g., Canada, USA and Australia) rather than local ones. Locally, there seems to be a complete lack of relevant academic material, even in the general field of borrower education or financial literacy. Such a dearth motivated the researcher to question the existence of and awareness around these financial literacy programmes, as well as their importance in empowering both aspiring and existing homeowners. It appears that there has not been any scientific research undertaken to explore the relationship between a lack of borrower education and the propensity to default in the low income housing market. While there seems to be a recognisable depth in the literature on generic financial literacy programmes, there are no serious empirical studies that provide explanations of and reasons for the relationship between lack of borrower education and the propensity for low income homeowners to default.

This study does however extensively evaluate existing arguments relevant to the subject matter, in spite of the lack of attention devoted to measuring borrower education (often referred to as financial literacy) in other spheres, or to non-payment behaviour amongst low income homeowners in South Africa. Some theoretical arguments have positioned financial literacy as a linkage between wealth and knowledge, suggesting that households with financial literacy are more likely to accumulate wealth and make empowered investment decisions. Other theoretical suppositions have pointed out more to a generic model of financial literacy, and majority of such theoretical findings are founded from the United States of America.

This is quite understandable given that the USA, an advanced nation, was the country in which financial counselling originated, Empirically, there appear to be no studies measuring the links between lack of borrower education and non-payment behaviour, the data necessary to support our central hypothesis, amongst low income households in South Africa. High net worth and middle class households are more likely to understand

financial decision-making and budgeting processes due to their exposure to formal education. That observation is validated by Monticone (2010), who shows that richer individuals are more likely to acquire relevant knowledge by themselves while the less wealthy and less educated may find it too costly or too burdensome to do so (Monticone, 2010). In the light of this, the fundamental shift by lenders to grant credit to previously excluded low income markets heightens the need to empower low income households to ensure that they adequately comprehend the functioning of financial markets and credit linked products, especially mortgage backed securities. This would not only help guarantee that they would be sufficiently equipped to become responsible borrowers, but would also amplify the positive effect of borrower education on their daily financial decisions and the asset worth of their houses.

The recent relaxation in credit granting criteria for mortgage finance as well as the loosening of underwriting mortgage standards and rising property prices have allowed many prospective borrowers in the low income housing market access to credit to finance their mortgages. While this increase in granting credit to low income earners in previously underserved communities is remarkable, in the absence of borrower education this could have negative implications and could be problematic if households are not properly informed about responsibilities, budgeting, financial conduct, management of credit contracts and property ownership. Such supposedly noble initiatives on the part of lenders could devastate the lives of low income households and impact negatively on a lender's income stream and their relationship with their low income customers.

The significance of borrower education and empowerment towards enabling borrowers to make rational and informed choices is therefore central to this discussion. This was illustrated by Campbell and Dietrich (1983) when they established that the model used to estimate default incidence is based on an optimisation model of consumer choice (Campbell and Dietrich, 1983).

Their theory was later expanded by Monticone (2010), who asserted that a lack of financial literacy imposes serious limits on the ability of individuals

to make financial decisions (Monticone, 2010). Buckland (2010) stated that people's financial literacy needs vary across socio-economic groups, which is why it is important to understand the institutional context in which people live and work. As people are situated in very different contexts, states Buckland, their situated learning and financial literacy needs will vary. Buckland elaborates that those in middle-income brackets may learn more through middle-class institutions like universities and may thus better understand risk and yield differences across different types of investments (Buckland, 2010).

Buckland argues that for low income people, situated learning may rely more on informal networks of friends and family who understand the fees and costs of using different types of banking services in their neighbourhoods. Budgeting skills for a household of five with an annual income of \$100,000 will look very different to the skills required for a single person earning minimum wage.

Undoubtedly, purchasing a property is a major investment decision for most households, but even more so for low income households due to the relative size of their earnings and the perception that low income households are not as informed as their high net worth counterparts. This argument is made by Gerardi, et al. (2010) when they assert that the expansion of credit in the early-to-mid 2000s has had a profound impact on real estate and financial markets of moderate income households. In a very short time, declare Gerardi, et al. it has broadened homeownership, particularly among individuals who have traditionally been shut out of credit markets.

In addition, this growth has occurred despite lagging income growth in these groups over the same time, and also in areas in which little house price growth could be expected. Moreover, on top of broadening homeownership rates, the expansion of credit has also led to a substantial increase in borrowing by previous homeowners taking advantage of quickly rising home prices over the same period of time, conclude Gerardi, et al, (Gerardi, et al., 2010).

These observations bring to the fore the notion that borrower education carries significant weight and is essential for both homeowners and mortgage credit grantors. Monticone (2010) states that the widespread lack of financial literacy casts serious doubts on the ability of individuals to make financial decisions (Monticone, 2010). Some studies suggest that financial experience can affect financial knowledge and that household financial wealth can influence the acquisition of financial literacy (Monticone, 2010). Financial knowledge, reasons Monticone, affects a wide range of financial behaviours, including wealth accumulation, stock market participation, portfolio diversification, participation and asset allocation in plans, indebtedness, and responsible financial behaviour in general (Monticone, 2010).

Such an observation is reflected by Huston (2010), who argues that there are three main barriers to developing a standardised approach towards measuring financial literacy: one, the lack of conceptualization and definition of financial literacy as a construct, two, the content of the instrument and three, instrument interpretation. Huston (2010:307-308) defines financial literacy and financial knowledge as “two types of human capital”, but argues that they are different. Financial knowledge is an integral dimension of, but not equivalent to financial literacy, affirms Monticone, (2010). Financial literacy has an additional dimension of application, implying that an individual must have the ability and confidence to use his/her financial knowledge to make financial decisions, emphasises Monticone (2010).

Financial education plays a key role in encouraging responsible financial behaviour by debtors. It is imperative when dealing with long term debt; in cases where a lender grants a borrower credit to finance a house and the borrower cannot fully comprehend the intricacies of purchasing a property, high default rates could occur. According to Schwartz (2006), improving credit profiles requires recognition by borrowers that there is a need for improvement. Schwartz (2006) adds that obtaining an appropriate loan requires an understanding of relevant market options (ibid). This requires both an understanding of what contributes to credit default and a further

understanding of what, if anything, can be done to change the underlying circumstances that contribute to credit outcomes.

This point is expanded by Bajari et al. (2009) when they affirm that the decision to default is captured by two conditions: that borrowers default if their net equity falls below a certain threshold or if they cannot make their monthly payments due to credit constraints (Bajari et al., 2009). Gathergood's (2012) theoretical approach considers that property market dynamics depend on changes in long run equilibrium and on impediments to adjustment towards equilibrium. He shows that mortgage termination due to mobility, default and refinancing provides a lens for evaluating property market adjustments.

Gathergood (2012) further asserts that the borrower's decision to move is, as an adjustment mechanism in the property market, associated with utility-maximizing decisions to either prepay or default on the mortgage (Gathergood, 2012). Discussing the non-payment behaviour phenomenon, Gathergood demonstrates that behaviour leading to over-indebtedness is often put down to social and psychological factors that reduce an individual's capacity to evaluate the consequences of his/her consumption borrowing decisions. Such decisions may not be rational from a classical economics point of view, notes Gathergood (ibid)

In fact, further argues Gathergood, individuals tend to overestimate their capacity to manage domestic financial resources while simultaneously underestimating the possibility of being affected by negative events. As a result, individuals systematically underestimate the risk of not being able to meet their financial commitments (Gathergood, 2012). Gathergood surmises that individuals overestimate immediate benefits and undervalue future costs; such behaviour leads to the decision to purchase, using debt if necessary, regardless of the effect this choice may have on the sustainability of future debt levels (Gathergood, 2012).

While there might be measures underway within the banking industry to minimise defaults due to liquidity constraints, they appear to be ineffective. This seems to indicate that defaults are primarily driven by lenders'

inability to educate borrowers, their desire to make money - even by lending negligently- and by borrowers' poor understanding of mortgage credit contract processes and the on-going costs of ownership. While dwindling net equity or house depreciation may be a factor, as it was in the US sub-prime housing crisis, research shows that financial institutions caused borrowers' financial woes by adjusting credit scores so that borrowers could afford loans that they otherwise would not have, with little or no regard for financial literacy concerns (FCIR report, 2011).

Evidence that non-payment behaviour by homeowners is not a recent phenomenon but a long historical trend is explained via various theoretical considerations. Struyk's (1976) work reveals that in the mid-Seventies millions of homeowners found themselves overwhelmed with debt and struggling to maintain their monthly payments. Struyk's work is substantiated by Vandel (1978), who argues that the risk of borrower default is an issue of primary importance for mortgage lenders. Being able to assess such risk increases the efficiency of the mortgage market through improved pricing, term setting, and other credit allocation techniques (Vandel, 1978). Vandel advanced his theory further by declaring that the inability to diagnose such risk can result in missed profit opportunities, loan losses and risk-minimising practices (Vandel, 1978).

Even though Vandel's theory is materially decisive, his perspective is one sided; focusing solely on lender interests and ignoring the interests of borrowers in mitigating non-payment behaviour. Lender's financial losses or financial gains should also be illustrated against the backdrop of empowering borrowers - an essential alignment of engagement between the creditor and the debtor.

On the importance of empowering consumers, Malpass (1990) argues that one key component in designing effective education programmes is to ask what lies at the real core of financial literacy. In part, maintains Malpass, (1990), the core factor is numeracy; this includes activating, instilling or fostering several individual factors, including marketplace persuasion knowledge (Malpass, 1990). Malpass's statements not only substantiate the significance of borrower education programmes but also their value.

Struyk's (1976) and Malpass's (1990) observations were later substantiated by other theorists. For instance, Singhet, et al. (2005) argue that although financially constrained households are found across all income groups, they are concentrated in the forty per cent of households with the lowest income (Singh et, al, 2005). The increase in household credit in Australia has resulted mainly from increased borrowing for housing. More than four-fifths (83.5%) of household credit comprises borrowing for housing and this is where the credit problem now lies (Singhet, al, 2005).

According to Hartarska and Gonzalez-Vega's (2006) theory, the decision to default is a purely financial decision independent of the housing decision. The value of a mortgage loan consists of the present value of the scheduled payments by a borrower and the value of the options granted to the borrower to terminate the mortgage by surrendering the house in exchange for terminating the debt (Hartarska & Gonzalez-Vega 2006). Van Order and Zorn (2000) in Hartarska and Gonzalez-Vega (2006) explain that the default behaviour of both low income and average- income groups is to be responsive to negative contemporaneous equity.

Hartarska and Gonzalez-Vega (2006) found that delinquency rates among low income borrowers, who received their loans through community reinvestment activities are similar to or better than the delinquency rates among conventional borrowers, illustrating that non-payment behaviour is common not only amongst low income homeowners but also middle income homeowners, a view that is not supposedly shared by the researcher of this investigation in light of the researcher's underlying theoretical assumptions.

The issue of non-payment behaviour is explored further by Anderloni and Vandone (2010), who assert that the fact that over-indebtedness may be caused by irrational behaviour is relevant and has to be taken into account in order to devise appropriate measures to prevent or manage financial difficulties and to evaluate the effectiveness of these measures. Individuals recognise that the causes of their difficulties lie primarily in their inability to manage money and the decisions made regarding spending and

indebtedness (Anderloni & Vandone, 2010). Individuals' incapacity to take corrective steps despite knowing the dangers of over-indebtedness may have significant implications for the design of effective policies for managing situations of pathological indebtedness, observe Anderloni and Vandone, 2010 (Ibid).

In addition to theoretical assertions, research reports also illustrate this phenomenon. The 2003 Fannie Mae research report showed that over 1.6 million of U.S. households resorted to personal bankruptcy as a solution. Providing assistance to financially troubled consumers has become a growth industry in America. In 1990, the annual number of new clients seeking educational assistance and credit counselling totalled no less than 500 000 (Freddie Mac report, 2008).

A Sunday Times report dated November 8, 2008 indicated that in South Africa 2 000 homes were being repossessed every month and that close to 100 000 homeowners had defaulted on their bonds, with 25 000 in danger of losing their homes (Sunday Times, November 08, 2008). The report further explained that properties become repossessed when the bondholder has defaulted on the home loan and an auction failed to attract a bid large enough to cover the outstanding debt (Sunday Times, November 08, 2008).

Furthermore, according to the Cyber Property Newsletter report (May, 2009) the number of South African homeowners who have defaulted on their home loan repayments had shot up to nearly 100 000 since June 2008 (ibid). Also, notes the same report that 95 000 homeowners had missed repayment instalments for two months or more, compared to around 55 000 five months earlier according to statistics from the country's four major banks (Cyber Property Newsletter, May 2009).

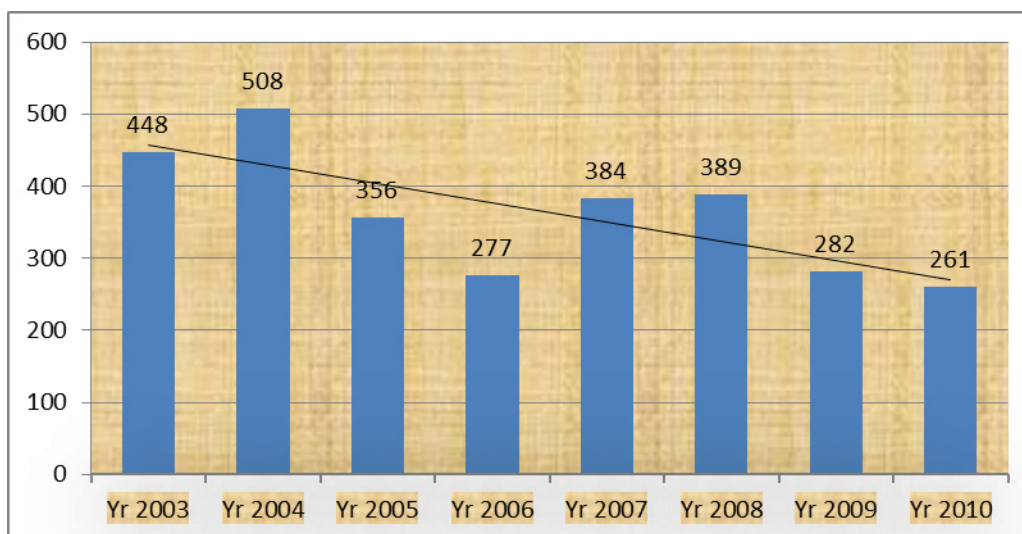
The FNB's Barometer report indicated that the bulk of all home loan defaults occur in the early stages of the loan, within one to two years of the bond being taken out (FNB's Property Barometer, April 2009). Credit statistics in general show that in South Africa 41.6% of the 61 million credit accounts representing 17.56 million credit active South Africans are

deemed delinquent (Credit Bureau Monitor, December 2008). This provides a generic indicator that the country's consumers are heavily reliant upon credit to finance goods and services, credit provided largely by banks. The report illustrated that only 68 500 debt counselling cases had been registered with the National Credit Regulator (NCR) by the end of April 2009 (ibid).

The National Credit Regulator's 2010 fourth-quarter credit report showed that nearly 198 000 accounts were 30 days or more in arrears, owing banks a total of roughly R107 billion (NCR report, 2010). South African consumers are indebted to banks for a total of R1.2 trillion, of which home loans account for 64 %, or R760 billion (City Press, April 24, 2011). Home loans in arrears accounted for approximately 14.4% of the combined home loan books of the banks (ibid).

The default mortgage ratio for the geographic area targeted by this investigation, according to the 2011 Lightstone Property Index shows that the number of sales in execution in Protea Glen, Soweto, was 2 905 between 2003 and 2010; the highest default rate was recorded in 2004 (508); default rates in 2003 were 448, and 384 and 389 in 2007 and 2008 respectively (see Figure 1 below). The total number of properties (freehold and sectional titles) in Protea Glen, as measured by Lightstone in 2011, was 17 138, and 13 133 of which were bonded/mortgaged properties (Lightstone Property Index, 2011).

Figure 1 Sales in execution in Protea Glen, 2003-2010 (Source: Lightstone: 2011)



Evictions and repossessions for non-payment of mortgages in some parts of Johannesburg, including Protea Glen, Ennerdale, Kathorus and Lawley, have become commonplace. As a result, the South African Human Rights Commission (SAHRC) was compelled to conduct an inquiry in 2007/08 to ascertain whether human rights were being violated when people's houses were repossessed or when they were evicted. The inquiry also sought to establish whether the promotion and protection of human rights had been realised by both public and private sector role players, e.g., the Department of Housing, the Banking Association of South Africa, the Board of Sheriffs, and the Estate Agency Affairs Board (EAAB) (SAHRC Report, 2008).

1.4 Rationale for selecting the Protea Glen Township

The underlying principle to decide on Protea Glen was therefore largely motivated by the high level of evictions and repossessions due non-payment of mortgages in the Protea Glen area in Johannesburg, Gauteng, as reported by the South African Human Rights Commission (SAHRC) Inquiry report in 2008.

As such, the big four commercial banks (First National Bank, Standard Bank, Nedbank and Absa) experienced the highest default patterns in the area. The SAHRC report showed that Nedbank reported a 10-15% default rate; and ABSA reported an astonishing 34% higher than their national average, which is 12%, FNB had 30% while Standard Bank reported a 10% default rate (SAHRC report, 2008).

- Of the three townships looked at in this study, Protea Glen had the highest default rates and was the largest in terms of size, income segments, number of households and bonded properties.
- The total size of the Protea Glen area is 16.5km²(Lightstone Property Index, 2011).
- Protea Glen is a typical new township - the biggest in Soweto in terms of both size and new housing stock (ibid).
- It is the only township whose properties are virtually wholly mortgaged, with only a fraction already having paid off their mortgage loans.

- The total number of all properties (freehold and sectional titles) in Protea Glen was 17 138 (ibid).
- Based on the average household size of 3.7 occupants (as measured by Stats SA), this represents a total of 63 410 occupants (ibid).
- Of the 17 138 houses in Protea Glen, a total of 13 133 were bonded/mortgaged properties (Ibid).
- Applying the same Stats SA formula, this represents a total of 48 592 occupants (ibid).
- As mentioned above, Protea Glen's non-payment ratio was reflected by the number of sales in execution between 2007, when and 2010 - a total of 1 316 properties (Lightstone 2011).
- This figure excludes properties that entered the foreclosure process and also those deemed to be delinquent payments by the banks.
- These figures could not be obtained; hence the researcher was unable to quantify such scale as such data is considered privileged and classified by the banks.

In addition, part of the rationale for this investigation was supported by the fact that the big four banks account for approximately 96% of the total home loan market share in South Africa (NHFC report, 2010). Absa is the market leader with 29%, followed closely by Standard Bank (27%), then First National Bank (22%) and Nedbank (15%). Other lenders, such as South African Home Loans (SAHL) National Housing Finance Corporation (NHFC), Integer and so forth, constituted a marginal total market share of 4%.

Exploring the significance of borrower education, comparison studies with the USA home loan market, established that pre-purchase homeownership education reduces mortgage delinquency across income groups, including the low income mortgage market (Hirad & Zorn 2002). In the USA, most of the credit industry follows a business model in which mortgage lending credit agencies provide the bulk of borrower education, budget analysis,

advice and possible referrals to social service agencies or other institutions in order to solve specific problems, viz. borrowers' financial problems, non-payment behaviour and general recommendations for specific changes in clients' behaviour.

The primary goal in this model is to provide advice and assistance in order to relieve the immediate problems and also to lower the debt burden. The longer term goal is to improve borrower awareness, planning and budgeting skills in order to prevent over-extension and repossession in the future. Decision assistance and education are intertwined in a good borrower education programme. In South Africa, such programmes, if they exist at all, appear not to be as supportive and empowering as they should be, primarily because they are not mandatory.

1.5 Contribution to the field

From the justification statements above, conceptualisation was adduced to investigate the problem statement as motivated by what seemed to be the absence of borrower education programmes. The author considers borrower education as a missing element and significant potential intervention in addressing non-payment behaviour in the low income housing market in South Africa. Further, it appears critical to establish the extent of negative trends and attitudes developing in some communities, including the perception that banks exhibit uncooperative attitudes, thoughtlessness and egotism in their attempted evictions of defaulting households, as well as a lack of comprehension of underlying circumstances.

The importance of acquiring financial knowledge was emphasised by Kassarian and Robertson (1999), who show that consumers with moderate financial knowledge tend to make more informed choices (Kassarian and Robertson, 1999). An impression shared by Schwartz (2005), who stresses that financial counselling sessions should be used primarily to maintain contact with debtors in order to provide rudimentary budget advice and address questions and issues relating to the bankruptcy process (Schwartz, 2005). Schwartz's philosophical

assumptions are quite decisive. This underscores that borrower education should not only empower the borrower or the debtor, but also re-establish and restore relationships between the creditor and the debtor.

Schwartz further outlines that financial counselling is therefore necessarily and prudent about teaching households financial management skills (Schwartz, 2005). Financial counselling provides the opportunity to give advice tailored to individual situations and which should serve to help debtors with the rehabilitation process (Schwartz, 2005). While I understand Schwartz's suppositions, the argument that financial education always assists the indebted borrowers with rehabilitation processes should be critically considered.

The fundamental principle should not be the provision of general financial education, but instead specific and targeted financial education. Carswell (2009) considers that different training programmes may have different goals: some counselling agencies may strive for increased homeownership, while others place more emphasis on education for those not yet be ready for homeownership (Carswell, 2009). McCarthy and Quercia (2000) in Carswell (2009) show that many counselling providers develop their own curricula and educational materials; thus, programmes differ according to the topics covered, resources available, breadth and depth of instruction and the specific goals of the counselling agencies.

A thorough, content rich and a lender appraised borrower education that is designed to meet the needs of borrowers would sufficiently empower them against the risks of default and indebtedness. If borrower education programmes are introduced at pre-purchase level, when a consumer is still contemplating acquiring a house, this will encourage the consumer to self-assess his or her credit worthiness and readiness in getting credit to acquire a property. This is given that high levels of borrowers' indebtedness are largely attributable to a lack of financial knowledge and a concomitant lack of change in financial behaviour.

Anderloni and Vandone (2010) extensively corroborate their assumption that the behaviour leading to over-indebtedness is often the result of a

combination of social and psychological factors that serve to reduce an individual's capacity to evaluate the consequences of their consumption and borrowing decisions (Anderloni and Vandone, 2010). Such decisions, argue Anderloni and Vandone, (2010) may not be rational from a classic economic point of view. In fact, they reason, individuals tend to overestimate their capacity to manage domestic financial resources while simultaneously underestimating the possibility of being affected by negative events (Anderloni & Vandone, 2010).

As a result, these individuals systematically underestimate the risk of not being able to meet their financial commitments (ibid). Furthermore, they overestimate the immediate benefits and undervalue the future costs (ibid). Such behaviour leads to the decision to purchase, using debt if necessary and regardless of the effect this decision may have on the sustainability of future debt levels (Anderloni & Vandone, 2010).

The fact that over-indebtedness may be caused by individuals' irrational behaviour has to be taken into account in order to devise appropriate measures to prevent or manage situations of financial difficulty and to evaluate the effectiveness of these measures, Anderloni and Vandone surmise. It therefore becomes apparent that a higher level of education is usually associated with a better understanding of credit reports and credit scores; in addition to formal education, individual cognitive abilities also play a role. If becoming more financially literate is an investment in future financial well-being, individuals who heavily discount the future are more likely to remain financially illiterate.

The central premise of this study is that the lack of borrower education is correlated with the probability to default on home loans and to some extent corroborated by the South African National Treasury, with the Deputy Minister of Finance recently declaring that savings behaviour corresponds to levels of education (Sunday Times, 6 November 2011). He asserts that the unemployed, the poor, and those with low education levels face financial exclusion (ibid). Consumers who are financially literate are in a better position to make effective financial decisions (Sunday Times, 6 November 2011).

In addition, the Minister stated that the government must support efforts to provide information, education and skills to consumers in order to empower them to negotiate their way in the financial marketplace and to understand their rights and responsibilities. The variety and complexity of financial products, not knowing the right questions to ask about a financial services provider and not knowing how to lodge a complaint when problems occur are just some of the issues that compound the vulnerability of consumers, the Minister concluded (Sunday Times, 6 November 2011).

As stated earlier, some studies have been conducted in the broad area of housing and housing finance, as well as financial literacy and counselling, but none have focused on the relationship between a lack of borrower education and non-payment behaviour in low income households in developing countries such as South Africa.

With this thesis I endeavour to make a positive contribution to the currently available knowledge on the subject of housing in general and housing finance, credit issues, financial literacy, borrower rights and community involvement and participation more specifically. Moreover, I seek to assess the dynamics of current borrower protection measures and the underpinning theoretical models on which they are based; I also seek to assess the importance of borrower education relative to homeownership behaviour in particular.

Thus, the undertaking of this empirical work should help facilitate healthier inclusive and participatory efforts aimed at empowering and restoring broken relationships and addressing trust issues between financial institutions, borrowers, homeowners and governance. In this investigation I have envisioned to contribute to the building of vibrant, empowered and well-informed communities as well as caring lenders and state structures. The significance of sound relationships and the role of social actors amongst stakeholders in the human settlements space is underscored by Huchzermeyer (2008) in her *Slum Upgrading in Nairobi* research, wherein she highlights the fact that positive actors in slum upgrading projects understand both the relationship between the local land/housing/tenement

market and the perpetuation of slums, and also the challenges this poses for the realisation of the right to housing (Huchzermeyer, 2008).

Concurring with Huchzermeyer and stressing the importance of public participation, Naid (2011) underlines the positive impact of employing engagement mechanisms that are specifically responsive to, and suitable for, different interest groups (Naid, 2011). Tomlinson (2001) had earlier observed that in the housing sector there is a strong view that engaging residents in the governance and management of their housing can enhance their experience in the market (Tomlinson, 2001).

As such, this study endeavoured to understand such a correlation between lack of borrower education and propensity to default on a broader and specific perspective. The research seeks to contribute to the field of borrower education and financial institutions (banks in particular) in South Africa, as well as related developing markets. My inquiry adds to the academic repertoire of solutions and paradigm shifts towards understanding the underlying reasons for non-payment problems affecting home loan account holders and homeowners. I hope to add to efforts to increase awareness of consumer rights, responsibilities and corresponding obligations pertaining to home loan payment and obligations.

In addition, through the findings of this empirical work I hope to highlight the importance of operational efficiencies and institutional innovations in improving the functioning of the system by drawing attention to the usefulness of suitable borrower education models in addressing historical challenges as informed by both literature and survey findings. This view is reflected in the World Bank policy report (1993) that maintaining “a high level of innovation, both in banking sector operations and in measuring and monitoring housing sector performance, required changing perceptions within the banks and also amongst their borrowers” (World Bank Policy Paper, 1993: 61); .

Manimala (1999) asserts that “innovations take place as a response to the need to make unprogrammed decisions” (Manimala 1999: 63). Manimala thus substantiates the overriding notion which the research (investigating

the relationship between lack of borrower education and non-payment behaviour with particular reference to low income home owners in South Africa) suggests as a prospect for unorthodox interventions engineered to test the tenacity of current borrower education frameworks. In essence, there is a probability that further developments, in view of newly uncovered opportunities underpinned by both theoretical comprehension and empirical indicators, will be paramount. Valtukh (1987) reminds us that “assumptions should not only be based on theoretical grounds but also on statistical observations” (Valtukh 1987: 222).

- The findings of this investigation anticipate contributing to restorative efforts between banks and borrowers around issues of trust, low confidence, negative perceptions and antagonistic attitudes. Huchzermeyer (2008) emphasises this approach when she argues that a stronger effort could be made to eliminate the negative actors from the process. These assumptions were also highlighted by Global Consumer Banking Survey (2011). The report revealed that almost half of the banking customers in South Africa are not satisfied with the service they get from their banks; 47% said their trust in banks had fallen in the past 24 months, while 31% reported that their confidence had not changed and the rest (22%) were not sure (Global Consumer Banking Survey, 2011).

According to the Global Consumer Banking Survey (2011), this erosion in trust and confidence was attributed primarily to poor service quality and pricing by South African consumers (*ibid*). In an earlier unrelated study on consumer education and literacy, Finscope (2006) finds that there is a lack of understanding of financial terms (Finscope, 2006). Finscope further argues that if people are to successfully engage in the low income and middle income target market (R1 500 - R15 000 per month) they have to understand the relevant product offerings better; this is particularly applicable to the lower income segment of this market (*ibid*).

Accordingly, the current study focuses on the imperative of educating borrowers to make informed purchase decisions and to understand all of

the required processes involved in buying a house, along with the corresponding obligations of homeownership. In certain markets, e.g., the USA, it has been proven that borrower education is a crucial aspect of responsible homeownership and, as such, it is accorded a vital role and prominence (Freddie Mac, 2008).

I maintain that unanswered questions regarding the actual role and importance of borrower education in acquiring a house and supporting responsible homeownership, as well as towards addressing non-payment behaviour, can only be answered by conducting a detailed systematic and scientific investigation. I therefore felt it is necessary to undertake this study to explore issues and engage in addressing challenges that would not be successfully responded to by any other means or processes.

It should be pointed out that drawing policy or strategic conclusions from a single study carried out in one specific location would be premature. Nonetheless, it is important to reiterate that the implications of the findings of the current study for institutional re-engineering mechanisms could have a profound positive effect on the way in which borrower education programmes are devised and implemented.

Simon (1998) stresses that “numerous different paths and policies have been tried; some are abandoned or surrendered while others are adopted and still others are formulated within complex blends of continuity and change, hybridisation and pastiche” (Simon 1998: 7). Similarly, Carr (1999) advocates comparable theoretical approaches when he declares that failure to account for the dynamics of population change and the process of upward mobility is a flaw in conventional urban theory and negatively affects policy (Carr, 1999).

To this end, the researcher notes that it is through the emergence of captivating theoretical arguments and fresh perspectives that compelling reasoning comes to the fore to provide contemporary alternatives to conventional models as well as sustainable efforts towards enabling appropriate responses to relevant challenges. This premise is reinforced

by Foster's theoretical postulation that "old habits give place to new ones that heal" (Foster 2006: 26).

The following chapter reflects on the role that borrower education has on changing homeownership behaviours. This is followed by Chapter 3, which discusses borrower protection measures designed to safeguard the interests of homeowners and the chapter will also unpack the theoretical conceptual model as well as formulation of hypotheses. In essence, this chapter provides the basis for the theoretical conceptual framework that I have formulated. In addition, the chapter diagrammatically illustrates how I developed and tested the model based on my initial hypotheses.

This is followed by Chapter 4, which confines itself to issues relating to answering methodological questions. This chapter provides data on the sampled group and an explanation of how I ensured appropriate sampling techniques. Further, the chapter concentrates on fieldwork processes, relevant techniques and the approaches used. Lastly, the chapter explains the data capturing procedures I have employed and unpacks the model and discusses the limitations of the study.

Chapter 5 presents empirical findings emerging from the analysis of the data as well as the results testing my hypotheses using the SPSS software instrument. Finally, Chapter 6 provides recommendations stemming from the collected empirical evidence as well as the gaps in the original theoretical suppositions revealed by the study. The chapter also highlights potential areas for future research and concludes with some final remarks.

CHAPTER 2

Homeownership, borrower education and borrower behaviour

2.1 Introduction

This chapter focuses on a review of existing literature and various theoretical assertions around borrower education and non-payment, behavioural patterns and homeownership obligations. The chapter also reflects on the role that education plays in changing behaviour. Fundamentally, this chapter illustrates the appropriate models (borrower behaviour) and governance of financial markets (regulations). Furthermore, the chapter observes the ways in which education and behaviour correlate with other demonstrable phenomena, including voter education and HIV/AIDS education.

2.2 Theoretical frameworks

The measurement of the linkage between borrower education and the financial behaviour of low income homeowners is a broad topic. It is thus imperative to extract those theoretical dimensions central to the questions of lender conduct, consumer financial behaviour, borrower protection measures and attitudes towards debt. According to Carswell (2009), the housing counselling industry came into existence with the passage of the 1968 Housing and Urban Development (HUD) Act.

The legislation was advanced with the help of testimony from low- and moderate-income advocates who believed that proper counselling in budget and credit matters would assist lower-income families in becoming successful homeowners (Carswell, 2009). Carswell suggests that during much of the 1970s and early 1980s, the housing counselling industry was characterised by delinquency and default counsellors who, for the most

part, only met with clients who were already on the brink of foreclosure (Carswell, 2009).

The proper understanding of these suppositions will be addressed in this section via three broad models. Each approach was important because of the distinct attempts it made to understand the political, economic, social and behavioural factors of the concerned variables.

The three broad approaches are 1) the fundamentals of the welfare theory, whose supposition is that the state assumes primary responsibility for the welfare of its citizens; 2) the neo-classical model, which assumes that markets are harmonious, self-regulating mechanisms that fairly allocates scarce resources according to output; and 3) Keynesian theory, which focuses on the economic behaviour of individuals (borrowers) and companies (lenders) in contexts where there is state intervention in the economy.

The relevance of these three theoretical approaches to this investigation is already implicit in its focus on non-payment behaviour and its underlying causes is embedded in the *neo-classical approach* and the role of both government and borrower behaviour in this regard is foreseen through a combination of *welfare* and *Keynesian* theoretical principles.

In order to demonstrate the importance of borrower protection standards and measures, I critically evaluated the impact of the following statutory frameworks: the National Credit Regulator (NCR), the Financial Services Board (FSB), the Home Loan and Mortgage Disclosure Regulations and the National Consumer Tribunal (NCT). All these were examined through the application of Keynesian and neo-classical models.

My intention was to measure the effectiveness of these applied market ideals in protecting borrowers, as well as evaluating the conduct and behaviour of lenders relative to these theories. The suppositions of the Keynesian model underscored the role of government in protecting borrowers, as opposed to the neo-classical model whose philosophy appeared to primarily serve the interests of the banks and financial institutions by advocating free and uninterrupted flow of market forces

without any substantial concern for obligations and statutory market conduct.

2.2.1 The welfare theory

The fundamental assumption of welfare theory is that governments should make provision for the welfare or well-being of their citizens. Such governments are involved in citizens' lives at many levels. They provide for physical, material and social needs rather than leaving it to their citizens to provide for these on their own. The purpose of the welfare state is to create economic equality, or to ensure equitable standards of living for all (Wisegeek Report, 2007). Further, notes the (Wisegeek Report, 2007), the welfare state is also supposed to provide education, housing, sustenance, healthcare, pensions, unemployment insurance, sick leave or time off due to injury, supplemental income in some cases and equal wages through price and wage controls (ibid). The welfare state is socialist in nature. It redistributes wealth by heavily taxing the middle and upper classes in order to provide goods and services for those seen as underprivileged (ibid).

Marshall (1950), whose earlier conception of social rights offered a popular legitimization of state welfarism, reasons that the historical struggle for civil and political rights culminated in the 20th century with the acceptance of the principle that citizenship entailed social rights. People who live in poverty, suffer from ill health and are inadequately fed, poorly educated and badly housed cannot be regarded as citizens in the proper sense of the term (Marshall, 1950).

Another underlying issue with the welfare state philosophy is that many people who are capable of caring for themselves have no motivation to improve their lives when they can depend on the government to provide for them. Smith (1979) states that the welfare approach presupposes two basic concepts: the meeting of basic needs at some minimum level and the equitable distribution of resources (Smith, 1979).

The application of the welfare approach to the problems of a lack of borrower education and non-payment behaviour was motivated by a desire to understand the role of government and government initiatives in enabling and motivating citizens in general to be accountable and responsible. This translates into citizens who are also self-sufficient consumers with positive behavioural patterns and expressly committed to the fulfilment of social expectations and obligations.

This section highlights the question of whether the primary responsibility of the state should be that of assisting and empowering housing consumers or, instead that of encouraging consumers or citizens to be passive beneficiaries. This is justified by underlining the shortcomings and benefits of the welfare approach of comparable countries, whose models are often a sequel to South Africa's economic, social, political and financial systems.

2.3 International benchmarks on welfare

In reviewing the welfare system in the context of other countries, it is important to appreciate some of the unique characteristics of South Africa in view of its historical background. While South Africa is classified as a middle income country, its income is very unevenly spread across society. The majority of the population qualifies the country as a low income country, and it is at this section of society that government interventions are targeted. Some programmes in South Africa (such as housing and housing finance systems and policies as well as borrower protection norms) are modelled on US, Mexican and Brazilian experiences, and in the case of welfare and education the model is based on UK best practice.

With South Africa now recognised as a full member of the esteemed BRICS economic block, a club of countries described by Wall Street as fast growth emerging markets, it is essential to examine Brazil, given South Africa's association with Brazilian housing frameworks. Equally, it is important to reflect briefly on how the above-mentioned economies have selected their social welfare approaches.

Table 1, below, illustrates the demographic, economic and financial variables of the classified countries, unveiling and drawing some significant comparisons between total populations, economic growth rates, literacy levels, unemployment rates, levels of inequality, inflation rates, etc.

2.3.1 The United Kingdom

As indicated in Table 1, the UK has an estimated population size of 62 million people. The population grows at an annual rate of 1.0% and has an average life expectancy of 79 years, the highest of the three catalogued countries. The social welfare system in the UK provides a guarantee of minimum standards, including a minimum income, social protection in the event of insecurity and the provision of services at the best level possible (Irish Times Report, 2011).

The key elements of the welfare state are understood to be social security, health, housing, education, welfare and children (ibid). Welfare consumes a third of British government spending (Irish Times Report, 2010). The foundational assumption of the UK welfare approach is that social protection and the provision of welfare services should be afforded on the basis of rights.

The generosity of the UK welfare system extends not to its citizens but also to qualifying immigrants, who enjoy benefits including housing benefit, child benefit, council tax benefit, disability allowance, income support, job-seeker's allowance and pension credit (UKCISA Report, 2010). However, under Prime Minister David Cameron the country appears determined to curb some of the welfare benefits through the introduction of the Welfare Reform Bill, expected to come into force in 2013 (The BBC report, February, 2011).

Changes include a review of sickness absence levels (with those refusing to work face a three-year loss of benefits) as well as changes to the disability living allowance, with an annual benefit cap of about 26000

pounds sterling (ibid). Cameron maintained that the bill will bring about the most fundamental and radical changes to the welfare system since its inception (ibid). Nonetheless, it remains to be seen whether such interventions will translate into transforming welfare beneficiaries into a population of educated beneficiaries and responsible citizens.

Analysis suggests that generosity in social welfare encourages a heavy reliance upon the state, which in turn leads to citizen apathy and disinterest. Cameron's reforms appear to confirm this. Regrettably, such reforms would impact negatively on low income households where occupants are working hard but likely to get discouraged when comparing themselves with counterparts who enjoy living allowances.

Subsequently, they would recognise the merits of sitting at home instead and enjoying the benefits offered by the state. The ultimate impact of opting to stay at home and cash in on state benefits would see those people with credit accounts, and in particular mortgage loans, defaulting on their repayments. This illustrates the importance of empowering citizens and educating borrowers about their obligations, especially as state liberalness towards a deserving population could be misinterpreted and deliberately abused by those who stand to benefit.

2.3.2 The United States

The United States is the third world's most populous country with an estimated population of 312 million (as of 2012) and a remarkable adult literacy rate of virtually 100%. It is the world's largest economy, followed by China (as measured by the Wall Street Window in 2012). The US population is exceeded only by that of China (1.3 billion) and India (1.1 billion) (ibid). US welfare began in the 1930s during the Great Depression (ibid).

The US government responded to the overwhelming number of families and individuals in need of aid at the time by creating a welfare programme that would give assistance to those who had little or no income (ibid).

This welfare system, still largely unchanged, is viewed as anti-work and anti-marriage by those politically opposed to it, and is also viewed as encouraging child bearing (ibid). To date, the US still provides comprehensive welfare programmes to its citizens; these include health care, child care assistance, housing assistance, cash aid and unemployment assistance, which together provide for more than 60 million people (Welfare Information, 2011). The US is sometimes described as a liberal welfare regime, in the sense that it represents individualism, *laissez-faire*, residualism and a punitive view of poverty (Wall Street Window Report, 2012).

The development of social welfare programmes in the US has been strongly pragmatic and incremental (US Social Security online Report, 2011). Proposals for change are generally formulated in response to specific problems rather than as a broad national agenda, as is the case in South Africa. Interestingly, however, the US welfare system is not solely reliant upon government revenue - the presence of private, mutual and corporate interests in welfare provision is substantial (ibid). This is constructive in as much as private sector interventions curtail the rapid erosion of the government's balance sheet. Such interventions, however, do not preclude the state from empowering its citizens to behave responsibly in meeting their obligations. The impact of such interventions will create an enabling environment for citizen accountability.

2.3.3 Mexico

Mexico, as shown in Table 1, has an estimated population of 111 million people, with a population growth rate of 1.1%. Of the three countries under discussion, Mexico is the only one that still enjoys a favourable economic growth rate of 5.5%, buoying employment levels and with only 3.9% of the working population unemployed, in spite of the current global financial crisis and the Eurozone debt calamity. Before 1982, Mexico's welfare state regime was a "limited and conservative one that placed priority on the social security of organised labour" (Murai 2004: 263).

Following the country's debt crisis in 1982, however, the regime shifted to a hybrid liberal model and pushed ahead with the liberal reform of the social security system (ibid). Murai (2004) argues that social security reform during the 1990s, along with economic restructuring, brought soundness back to state finances, but the flip side of this was the retrogression of Mexico as a welfare state, which in turn led to a deterioration in urban employment conditions and an increase in rural poverty (Murai 2004). She notes further that Mexico will have to undertake more fundamental social security reforms, in the absence of which it will continue to face difficulties in achieving its goals of expanded welfare (Murai, 2004).

The welfare approach, while in theory guided by efficiency criteria, does not always break with tradition. According to Egan (1999), Mexico has had a bad record when it comes to welfare programmes, and in the past these programmes have been manipulated for political gain by the ruling party (Egan, BBC, 1999). His view is validated by Danziger and Danziger (2005), who established that there are likely to be many other components to an anti-poverty strategy for the Mexican economy (Danziger & Danziger, 2005).

Poverty, however, argue Danziger and Danziger, is likely to remain high if fighting poverty is not a top national priority (ibid). This emphasises the idea that the state's welfare extension programmes should not move beyond assisting and enabling those who cannot help themselves; influencing these programmes for the sake of popular political mileage will not bode well for the country's desire to develop a self-supporting population through empowerment and education programmes. The impact on the country's financial resources would be far-reaching in the long run due to the bulk of the population being heavily dependent upon welfare programmes.

2.3.4 Brazil

Like South Africa, Brazil has its welfare system enshrined in the Social Security clause of the Constitution of 1988. As reflected in Table 1, Brazil is the fifth most populous country in the world, with an estimated

population of just over 190 million people - only China, India, the USA and Indonesia surpass it. The Brazilian economy is growing at an annual rate of 2.1%, but Brazil is simultaneously described as a highly unequal country, with an income share of 44.9% held by 10% of the population and only 0.9% of the income share held by the lowest 10%. Interestingly, Brazil has the sixth largest gross domestic product (GDP) in the world (Wall Street Window, 2011).

Aspalter (2003) states that the “evolution of the welfare state in Brazil has been influenced by some historical features of Brazilian political culture: centralism, authoritarianism, paternalism and demagoguery have all contributed to generating a social protection system with chronic problems” (Aspalter, 2003: 21). The Brazilian social welfare system has undergone structural reforms since its introduction.

According to Fleury (2011), the characteristics of the new welfare system are similar to those of some systems already instituted in European countries: wide social insurance benefits with a centralised administration structure, universal medical care, unemployment insurance and financing based on a combination of tax resources and employer and employee contributions (Fleury, 2011). She asserts that the Brazilian welfare system’s most important outcome is that of social policy investments (Fleury, 2011). Ramphela (2012) observes that Brazil has a social grant model but that it is conditional since it is treated as an investment with citizens taking responsibility. In Brazil, explains Ramphela, (2011) the people who started on social grants ten years ago are now self-supporting.

On the question of housing provision, the Brazilian government’s recognition that the poor need to have access to explicit subsidies in order to afford housing clearly departs from the military’s entrepreneurial view that the housing provision system had to be self-financed (Valença & Bonates, 2009). Instead of subsidies for the poor, the government proposed the development of modern market instruments to support the provision of social housing (ibid). This was done through the establishment of new mechanisms to attract savings both domestically and from abroad (Valença & Bonates, 2009). The government proposed the creation of a

municipal housing fund (ibid). The fund was earmarked for housing but the source and flow of funds envisioned by the government would be from municipal revenues, domestic and foreign credits, mortgage interest profits, yields from financial investments, donations and fines (ibid).

This was an essential mechanism for bolstering the country's financial resources. It is important to note that in Brazil the welfare system is designed to empower beneficiaries to become self-sustainable in the long run. This is a classic example of what welfare systems should achieve: the building of a nation of empowered and educated citizens enabled by the state to be self-supporting. Such beneficiary behaviours and attitudes are likely to be mirrored across income segments and broader spectrums of households, eventually creating an accountable society from those most dependent upon welfare right through to the most affluent sections of the population.

2.3.5 South Africa

South Africa is Africa's largest economy, closely followed by Nigeria (as of 2012). As shown in Table 1, South Africa is also described as the most unequal country in the world apart from Brazil, with an income share of 44.8% held by 10% of the population and only 1.4%% of the income share held by the lowest 10% of the population, along with a growth rate of 1.3% of GDP. Interestingly, South Africa defines itself as a developmental state underpinned by developmental ideals for addressing socio-economic challenges and inequalities. Allen and Thomas (2000: 23) define development "as a process that means, simply, good change". Development, according to them, is a positive word that in everyday parlance is virtually synonymous with progress and may entail disruption of established patterns of living (ibid).

It is critical to note that no theoretical assumptions or historical definitions of principles are embedded in a developmental state. It is a completely new phenomenon, declared as the country's intention. Thus we can only conclude that, in the absence of any existing school of thought, a developmental state is based instead upon "self-proclamation", illustrated

by an envisioned doctrine. Such principles, if thoroughly unpacked, well-detailed and properly understood may encourage stimulating public discourse, but for now evaluations and assessments indicate that South Africa's model is based primarily upon welfare principles and theoretical considerations along with a sparse mix of free market and Keynesian models. The researcher of this investigation find it difficult to associate nor connect its considered development principles convincingly, even to Rostow's (1960) renowned five stages of economic development.

With an unemployment rate of 25% of the labour force, millions of South Africans still live in poverty 18 years after the end of apartheid (Stats SA, 2011). According to Statistics South Africa, the unemployment rate dropped from 25% in the third quarter of 2011 to 23.9% in the fourth quarter, but this is still substantially higher than the 21.8% recorded in 2008. Discussing unemployment, Child (2011) reveals that in South Africa there are 3.3 million 15-24 year-olds who do not work, go to school or attend university. Hart (2012) affirms that the economy is not structured to create jobs. What is needed, he maintains, is investment in small businesses in order to boost employment (Hart, 2012).

Table 1: Demographic, economic and financial variables of the above welfare states

	UK	USA	MEXICO	BRAZIL	South Africa
People					
Population ('000s)	62	312	111	190	50
Annual Population Growth	0.5%	1.0%	1.1%	1.3%	1.1%
Urban Population (% of total)	90%	81%	76%	85%	60%
Annual Urban Population Growth	0.6%	1.3%	1.4%	1.9%	0.51%
Fertility Rate (births per woman)	1.9	2.1	2.2	2.3%	2.7
Life Expectancy	79	78	74	72	49
Infant Mortality Rate (per 1,000 live births)	5	6	29	19	56
Adult Literacy Rate	99.8%	99.9%	93.3%	89.6%	87.9%

Unemployment Rate	5.4%	4.6%	3.9%	7.4%	24.9%
<u>Households</u>					
Households ('000s)	26,398	115,194	25,516	51,432	12,977
Household Growth Rate	0.6%	1.1%	1.7%	1.4%	1.6%
Occupants per household	2.3	2.6	4.3	1.4%	3.7%
Population using improved sanitation	-	100%	79%	75%	65%
Population using improved water source	100%	100%	97%	90%	88%
<u>Economy</u>					
Annual GDP Growth	0.6%	1.8%	1.3%	2.7%	2.2%
GINI index	35.97	40.81	46.05	56.6%	57.78
Income share held by highest 10%	28.5%	29.9%	30.4%	44.9%	44.8%
Income share held by lowest 10%	2.1%	1.9%	1.6%	0.9%	1.44%
Consumer Price Inflation	3.2%	3.2%	3.6%	4.2%	6.1%
<u>Housing Finance</u>					
Lending Interest Rate	4.7%	8.0%	7.5%	48%	8%
Interest Rate Spread	n/a	n/a	4.2%	34.9%	5.5%
Real Interest Rate	2.2%	4.6%	2.9%	40.6%	5.5%
Mortgage Interest Rate	5.2%	5.7%	0.0%	0.0%	9%

Multiple sources: Stats SA, IHFP, UNDP, World Bank

2.4 Analysis of welfare

Britain has announced a radical overhaul of its welfare system - after the second phase implementation of welfare in the 1980s and 1990s - pledging harsh penalties for those who refuse jobs and community work service for the unemployed in return for benefit cheques. Generous reforms to Britain's welfare system triggered a baby boom among poor women (The Telegraph, 2011). Correspondingly, in the US many Americans were unhappy with the welfare system, claiming that individuals were abusing welfare programmes by not applying for jobs, having more children in order to obtain more aid and staying unmarried in order to qualify for greater benefits. Welfare system reform became a hot topic in

the 1990s. In Latin America, the Brazilian welfare system displays different dynamics, particularly in how it mobilises finances from various domestic and foreign funding sources instead of relying on the state's fiscal capacity. The Brazilian system is commendable for the extent and impact of its social investment welfare. Mexico, on the other hand, abuses welfare programmes for populist political mileage.

Somewhat differently, in South Africa the new dispensation inherited a legacy of uneven distribution of resources and discriminatory policies; access to housing was allocated on the basis of race, which entrenched inequality amongst its citizens. While the government seeks to address such historical inequities, it must take care that the welfare approach in its present arrangement does not encourage the widespread expectation of welfare support, thereby discouraging the private sector from deepening its involvement in poverty alleviation and participation in social programmes, as is evident in the cases of the US and UK. Given South Africa's thin tax base, this might rapidly erode the state's balance sheet. It is telling that the 1994 Housing Policy and Strategy for South Africa strongly states that housing is inextricably linked with Welfare (Housing Policy, 1994).

With particular reference to this study, the South African government's welfare approach is underpinned by the Constitution, which guarantees all citizens the right to adequate housing. However, there seem to be some misconceptions about this. Consumers appear unaware of their concomitant responsibilities and the application of a welfare system would only exacerbate this situation. The responsibility of the state should be to empower consumers and to guard against the promotion of a self-entitlement culture. The Brazilian model is a case in point. A view Ramphela (2012) explains that in South Africa the government provides wholly for its citizens rather than seeking ways of empowering them. This type of approach, Ramphela elaborates, denies people the opportunity to behave maturely or to participate in their own development (ibid). Ramphela was illustrating that consumers must be sufficiently educated and empowered if they are not to become indefinitely dependent on

government hand-outs. They should be educated about responsibility, homeownership and the on-going costs and obligations of being a homeowner. This view is shared by Vick (2011), who shows that the problem of dependency is most severely represented in housing. He maintains that many households have benefited from housing provided by the government but that the harsh reality is that the housing backlog is now greater than in 1994, when the post-apartheid government first took over (ibid). Further, Vick (2011) argues that the government has a clear responsibility to provide services and alternative service provision policies are needed to satisfy popular expectation whilst actively building a culture of responsible citizenship (Vick, 2011).

Vick's principles may appear pragmatic, but it is crucial to note that there are inconsistencies in his arguments. The prudential nature of his envisioned approach is contrasted by his belief that the government needs to devise policies that accommodate both popular expectation and responsible citizenship. This model is not likely to be feasible, as encouraging responsible citizenship does not necessarily correlate with popular expectation. No parallels can be drawn on the basis of an unworkable scenario in view of the populist expectations being created by the government and not by its citizens.

Vick's thinking around creative solutions is similarly problematic, especially when he argues that communities have become passive in seeking their own solutions or finding ways to partner with government in order to improve their neighbourhoods. One is not attempting to suggest that the very state of community passivity that most of us lament has the hallmarks of the type and extent of government relationships with the communities. Realistically, it is not entirely appropriate to submit such a proposition as the government to a large extent, for that matter, is expected to find ways of partnering with communities in seeking solutions since the government has its own contribution to the current state of affairs and market dynamics. Hence, this investigation demonstrates how imperative the role of the state is in the housing market via the advocacy of Keynesian suppositions. One may contend that this type of intervention by the state

should in fact be focused on enabling its citizens and this view is backed by Mantashe (2011) when he states that people should be enabled to be able to build a better life for themselves (Mantashe, 2011).

Welfarism appears to be emphasising far greater state responsibility and a heavy reliance on state resources, which may not be achievable in an economy like South Africa's. A 2011 study commissioned by Kayamandi Development Services on the economic impact and expenditure of housing delivery programmes from April 1994 to April 2010 revealed that a total of R115.6 billion had been spent on housing, which equalled 2 371 777 units delivered at an average annual rate of 148 236 units (Kayamandi Report, 2011). This translates into 11 million beneficiaries, or 22% of the population (ibid.) According to the 2012 National Department of Human Settlements report, published on its website, there are approximately 1.2 million households still living in informal settlements in South Africa, despite incredible housing delivery by the Department since 1994.

While reforms in the government housing capital subsidy system have undoubtedly improved material conditions for vulnerable sections of the population, there seems to be a microcosm of disheartening patterns. Fully capitalised subsidised housing has since improved, making it superior in size, structure, quality of workmanship and design, as shown in the figure below. However, the approach of free housing appears to carry the risk of creating a set of circumstances where even consumers with the economic potential to improve their incomes and lifestyles would rather delay their entry into the mortgaged starter house market in favour of this much improved free house.

According to Rust (2011), subsidy freehold houses are built on a 250m² land area and are targeted at 60%-70% of South Africa's population. There are approximately 1.4 million properties on the deeds registry (ibid). Given these sizeable plots of land, it is argued that even those who do not qualify will look for opportunities to forego a starter mortgaged property in favour of free housing, where they can incrementally build the house they desire without paying anything towards it. As depicted in Figure 3 below,

the difference between the starter mortgaged house and a Breaking New Ground (BNG) free house is quite marginal.

Figure: 3 Row of RDP houses in Freedom Park New BNG House in Olievenhoutbosch



Source: Author & A. Pillay Old RDP stock 30m²

Source: Author New BNG House 40m²

The application of welfare theory principles in a South African context would not be sustainable in the long term and could thus have unintended implications for the government, the country and its citizens. Such an observation has also been made by Khan and Thring (2003), and more recently highlighted by renowned veteran businessman Sam Motsuenyane when he declared that too many people are heavily dependent on the government (Sunday Times, 30 October 2011).

Khan and Thring (2003) have pointed out that the overall impact of non-credit linked (i.e., subsidy only) housing projects may be negative for the 'very poor' because of how it affects their survival strategies (Khan and Thring, 2003: 85). The Brazilian model of empowering beneficiaries and raising welfare funds from external markets contains several interesting elements that could be replicated in the South African situation. In Brazil, social welfare is based on the principle of social investment whereby citizens are empowered and encouraged to save for self-sustenance. While Brazil is characterised by having the world's highest national income inequality, it is worth noting that it also has the sixth highest GDP in the world.

2.5 Concluding remarks

Following from the arguments and theoretical considerations above, it would seem that the functions of the welfare system are different in each individual country and the application of the welfare model is informed by the country's characteristics. It is also apparent that different states operate with different rules and structures. If the intended objectives and underlying assumptions of the welfare system are to assist those with financial challenges, this means that the extension of welfare benefits by the state to its citizens should be closely linked to empowerment, transforming and enabling beneficiaries to be self-supporting. In this approach, a government would be creating a nation with an active citizenry, encouraged to do things on their own as opposed to waiting for the state to provide for them.

Educating citizens on issues of development and accountability - while remaining considerate of and responsible for indigent groups - should be the aim. In this way, citizens would aspire to be economically self-sustaining and to build or buy properties of their own, the empowerment process having prepared them for the obligations of homeownership. This behaviour would have beneficial effects across all sectors and actors, from borrowers through to lenders.

According to the University of Cape Town's Education and Training Unit's (ETU) 2010 report, social welfare in South Africa is the second biggest component of government expenditure (15%), surpassed only by education (17%). Social welfare grants now support approximately 15.2 million South Africans, up from 2.5 million in 1998 (National Treasury, 2011). Treasury estimates that social protection spending will rise from R160 billion in 2012 to R182 billion in 2014 (ibid). Revenue is dipping sharply as unemployment rises, creating a smaller pool of small tax payers to fund public spending (MDG Country Report, 2010).

This indicates that for as long as the general welfare system is not designed on the basis of creating an enabling environment, civil responsibility, empowerment and skills development, it is unlikely that

individuals will eventually develop the ability to take care of themselves through jobs. High expectations, entitlement mindsets and non-payment behaviours are likely to be exacerbated by the current application of the welfare approach in South Africa.

This is reflected in the Economic Impact of Government Housing Programmes report (2011), which states that the issue of free housing has created negative consequences for municipalities as beneficiaries are not paying their municipal rates, which the municipalities rely on for income generation (Economic Impact of Government Housing Programmes, 2011). The non-payment issue, concludes this report, is attributable to many beneficiaries not paying for services because they are either unemployed or under the impression that everything is for free (ibid).

A paradigm shift at government level towards new alternatives is of paramount importance in avoiding further negative consequences. This is a position espoused by Motsuenyane (2012) when he argues that, given the country's current state of affairs, socio-economic problems cannot be adequately addressed; he suggests that investment in entrepreneurship is of overriding importance (Motsuenyane, 2012).

The application of this theoretical framework would be sound - and worth advocating - if its principles were based on a welfare system underpinned by a development model synonymous with structural change and systemic improvement. In South Africa, the national welfare budget is quite astonishing: "for 2010/11 it was R180.8 billion (from a R658 billion revenue); for 2011/12 it was R189.8 billion and the estimate for 2012/13 is R197.2 billion" (SA Survey, 2010: 525).

2.6 Neo-classical theory

According to Elster and Moene (1990), the key supposition of classical theory is that the economy is subject to the control and criteria of the market. Megboluge (1991) notes that the neo-classical approach is a fully developed economic theory for analysing market and consumer decisions. The neo-classical theoretical conceptual framework focuses on the role of markets in the economy. For instance, Megboluge (1991) explains that the theory supposes that if markets are left to operate freely, without any government intervention, then the economy will prosper.

The neo-classical paradigm assumes that there is no political or economic interference or domination that can adversely affect the positions of producers and consumers within the market (Aglietta, 1979). It would seem that neo-classicism as a system is modelled on profit maximisation ideals. While this may appear uncomplicated, such ideals are not desirable if they are achieved at the cost of neglect of wider social issues.

This view is emphasised by Reed (2003) when he states that the free market economy is the function of enterprising individuals: to chase the capital they require for their proposed commercial activity, with the obvious consequence that those who hold the capital are in the driving seat (Reed, 2003). Banks and the banking system are at the cornerstone of this type of economy as the central depository of its most important resource, Reed adds (Reed, 2003).

The application of neo-classical theory in this investigation is succinctly substantiated by Buckland (2010). Buckland draws attention to the fact that neo-classical economic theory provides a useful way of understanding consumer financial knowledge and decision making and explains that the neo-classical model posits a world in which individual consumers, operating in frictionless markets, make decisions to maximise their satisfaction. In the context of financial literacy, he highlights three points:

First, consumer satisfaction is maximised through increasing consumption and leisure time (Buckland 2010). Generally speaking, more consumption is better and consumers make decisions about work and consumption in order to achieve this (ibid.). Next, neo-classical economics finds that

consumers take a long-term view of their lives, making decisions about current consumption and savings in order to maximize lifetime utility (ibid.).

Buckland (2010) argues that life cycle theory is consistent with the neo-classical view of the consumer wherein consumers base current consumption on their expectations of future income. Neo-classical economic theory, he states, is not interested in the institutional context in which consumers make decisions, assuming instead that competitive markets will provide desired goods and services at efficient prices (Buckland, 2010).

Following this reasoning, one could argue that the neo-classical paradigm's assumptions are arbitrary given that real-world economies are influenced by endogenous and exogenous factors (be they economic, social or political) that control the supply and demand of goods and services. The beneficiaries of such a system, as Reed (2003) points out, are the banks - and they benefit at the expense of borrowers.

The idea of full employment equilibrium certainty, as suggested by the neo-classical model's presuppositions, appears to be misguided. Buckland's (2010) work further highlights the fact that neo-classical theory resonates primarily with the interest of the markets - in this instance, the lender. The theory does not address borrower needs and focuses instead on satisfying market needs.

Naidoo (2011), in his analysis of the South African economy, argues that the market economy is stuck in "a low employment equilibrium" (Naidoo 2011: 30). The full employment equilibrium sketched out by advocates of the neo-classical model is only possible when there is little absorption and no trade union intervention (Naidoo, 2011). This suggests that the model represents nothing but a structural framework supporting high turnover at the expense of low income households and the working class. It could thus prove to be an imperfect model for the South African housing finance market given that government interference through regulatory mechanisms is essential in empowering consumers.

The weakness of the theory is its assumption that the market is always in equilibrium and that markets are harmonious. Rothbard (2004) states that the most common ethical criticism of the model is that it fails to achieve the goals of equality. This demonstrably stifles incentive, eliminates the adjustment processes of the market economy, destroys efficiency in satisfying consumers' wants, greatly lowers capital formation and causes capital consumption - all signifying a drastic decline in general standards of living (Rothbard, 2004).

The decade leading up to 1994 was marked by widespread resistance to service and mortgage payments by residents in the black townships. The financial sector, especially retail banks, experienced the brunt (15% defaults estimated at R10 billion) of the rent and mortgage boycotts of this backlash (De Ridder, 1997). This was mainly due to loss of employment by borrowers due to a severe economic downturn in the late 1980s and early 1990s (Pillay, 2003). Interest rate increases, strained affordability, inadequate financial literacy (especially of mortgage bonds among new homeowners) all contributed to the problem (Ibid)

As a result, tens of thousands of properties were designated as properties in possession (PIPs) and non-performing loans (NPLs) (Pillay, 2003). These events shook the market to such an extent that its impact is still evident in today's borrowers' housing market (ibid). The imperfections of neo-classical presuppositions were adroitly revealed by Tolsi (2011) when he states that there were hardly any crumbs left after a market driven orgy that is still seeing the foreclosure of mortgage defaulting homes because of the sub-prime crisis (Tolsi, 2011).

Further, neo-classical theorists assume that companies' and consumers' interests are justly realised in a perfect market (Basset & Short, 1980). The implementation of the model in imperfect markets like South Africa, where consumer interests are unjustly realised, does not seem justifiable. This is mainly due to the neo-classical assumption that consumers know what is expected of them and that relationships are distant in nature. Some contributing factors included corporate inability to educate borrowers on their rights and responsibilities, consumers' inability to repay

mortgages and rates, resulting in the decline of asset values due to the deteriorating physical conditions of homes, this all as a result of the advocacy of an unfriendly economic approach.

Ewert (1996) states that one of the most common criticisms of the free market economy is its supposed tendency towards impersonalism and what some have called “individualistic anarchy” (Ewert, 1996). He affirms that the market economy encourages self-centred behaviour and discourages relational ties in society (ibid). Ewert illustrates the importance of transactions and relationships by pointing out that many people have good friendships with their customers, suppliers, employees or employers. Nazario (2006) concurs that in a market-driven economy, markets are doing what they do best (Nazario, 2006).

Ewert and Nazario suppositions show that the theoretical framework of this model promotes inherently impersonal relationships, and that relationships between borrowers and lenders are founded on a solely economic basis that does not recognise the value of an interdependent approach or the importance of customer service and interpersonal relationships. The neo-classical model is characterised by free operation and unregulated market economy. In the market oriented approach, the demand for and supply of goods and services is influenced by market forces.

Regarding the provision of goods and services, Pollak (1985) is of the view that economists have ignored the actual behaviour of individual consumers when analysing the market and assume the existence of a perfect economic order. More specifically, they assume that households maximise their utility with respect to different goods and services, including housing services, subject to a budget constraint where expenditure for housing is part of the total expenditures (Pollak, 1985). This position is however disputed by Jones (2002), who argues that regulations are designed to “prevent companies from pricing above marginal cost and that it is critical for firms to be allowed to price goods and services above marginal cost” (Jones, 2002: 120).

Jones's envisioned model seems unworkable and unfeasible in this context, while Pollak appears to show that most households are in a housing consumption disequilibrium because of transactional costs that they were not aware of, e.g., insurance, increases in interest rates, etc. For example, in the South African housing market there seems to be a developing trend for homeowners to over-commit themselves when taking out mortgage loans, and some are now unable to service their debts.

Others have opted not to take out mortgage loans because they recognise that owning a house is a life-long debt obligation that they will find it difficult to extricate themselves from, while still others are finding it difficult to trade up due to a lack of proper institutional communication, education and availability of information. This is illustrated by the Absa Housing Review (2008), which reports that the cost of servicing household debt increased to above 10% of disposable income in 2007 that real disposable income growth slowed towards the end of the same year, and that real consumption expenditure growth simultaneously tapered off to lower levels (Absa Housing Review, June, 2008).

Against this backdrop, it appears that the probability of default is a function of the borrower's ability to repay, which depends in turn on income, expenditure profile and other factors subjected to market volatilities and fluctuations. If the market is insensitive to these factors it is inherently incompatible with the empowerment of working people. The limitation of neo-classical theory here is its emphasis that the market is compelled to worsen working conditions as much as possible in order to lower costs of production in order to obtain maximum profits. The market produces and pays people to work for it and this must be kept in mind along with the fact that in neo-classical theory the market has a single goal-defining characteristic: to maximise profit (Mcguire, 1991).

The exploration of market economic theory in this study has been undertaken as a response to financial institutions' low regard for borrowers and their relationship thereof with borrowers. The salient facts emerging from this exploration suggest that a top-down profit culture operating in the absence of adequate information provided by lenders, creates an

environment in which voluntary defaults could become common occurrences. Consequently, in order to advance our understanding of housing consumption decisions we need to broaden our model of housing demand determinants to include more conceptual analysis of the impact of demographic and social processes on housing borrowers' decisions.

2.7 The Keynesian model

Keynesian theorists criticize neo-classical theory and put forward an alternative way of viewing the model. The fundamental principle of Keynesian theory, as developed by John Maynard Keynes (Economics and Personal Finance Resources, 2011) is the need for government intervention as a corrective for economic instability (ibid). Proponents of Keynesian theory assume that government intervention is necessary to ensure an active and vibrant economy.

According to the underlying principles of this model, government should stimulate demand for goods and services in order to encourage economic growth (public policy definition, fin. Dictionary, 2011). As Keynesian economics advocate general public sector participation in assisting the economy, it is a significant departure from the popular economic thought which preceded it, namely *laissez-fair* capitalism (ibid). The basis of Keynesian doctrine is the justification of government intervention in the economy through public policies and legislative instruments aimed at achieving full employment and price stability (ibid).

In general, I found the principles underpinning the Keynesian theoretical model to be of most relevance to the current study relative to the problem statement. The application of Keynesian theoretical assumptions and suppositions in this investigation appear to have a pragmatic value: Keynesians maintain that in order to maintain equality the government must step in to regulate markets in general. This, according to Keynesians, will lead to poverty eradication and the lessening of inequality between members of society. The markets will be transformed and more responsible towards consumer needs. This in turn suggests that

consumer interests will be justly realised and thus proportionately influence consumer behaviour, markets and trading trends.

I agree with this idea and hypothesise that in the absence of effective government regulations and interventions consumers will be condemned to inconsiderate private (banking) sector conduct. The interests of borrowers and prospective borrowers have to be protected and safeguarded and the state should intervene in ensuring that borrowers and consumers are protected and treated fairly by lenders and to ensure that cordial relationships between the lender and the borrower prevail. In addition, the legislative frameworks enacted to protect borrowers from dishonest lenders need to be upheld. The consumer protection measures introduced by the government should have the power and resources to prohibit unfair lending practices and poor market behaviour, lenders in the instance.

Once these negative factors have been addressed, this model could foster positive relationships between borrowers and lenders and, ultimately, this may lead to a decline in their propensity to default. The significance of applying elements of this model is that it also impact on the outcome of measured variables and propensity to default as a dependent phenomena of the study and the lack of borrower education as an independent phenomenon.

In a broad Keynesian model the marginal propensity to consume (MPC), defined as the change in consumer spending arising from a change in disposable income, would fall as income increases. I dispute this particular notion while embracing most of the other Keynesian arguments. My contention is that an upward change in income would in fact cause a shift in the consumption or expenditure function of the borrower, leading to consumers spending or borrowing more money from banks. This hypothetical spending behaviour pattern would be influenced by a lack of financial literacy programmes to empower borrowers otherwise persuaded by an inculcated appetite for debt. Thus I speculate that financial variables (household income, interest rates, etc.) are significant and correspond to a borrower's propensity to default due to lack of borrower information.

2.8 Concluding remarks

Comparative analyses of the aforementioned theoretical approaches indicate that the application of certain theoretical assumptions and suppositions emerging from this study will not necessarily bring about the envisaged outcomes. For instance, a welfare approach which advocates state care for its citizenry does not provide much that is of use in testing the problem statement. It can be argued that the application of welfare theory might create consumer expectations around the role of government that might not be met by the state. This theory emphasises a far greater level of responsibility and dependency on government and its resources, which may not be achievable in countries like South Africa where economies are still developing.

In testing the appropriateness of this theory, I discovered that it did not present the desired response to the problem statement and founding questions. The theory does, however, highlight that the implementation of this model in South Africa has encouraged and promoted self-entitlement among consumers whose behavioural approach shows elements of unreliability, especially in relation to free housing.

This means that a prospective homeowner with a household income of R3 501.00 does not qualify for a full subsidy but has to apply for a FLISP subsidy instrument in order to purchase a house. Households earning R3 501-R3 600 per month are eligible to purchase a house. The mortgage repayment behaviour of households earning R3 501-R3 600 per month is likely to be impacted because of the knowledge that neighbours are paying nothing towards their houses while homeowners are expected to repay or service the loan until amortisation. While the product offering is slightly different, the home loan account holder behaviour is likely to be similarly impacted.

The implementation of the model under discussion seems to have increased the probability of non-payment behaviour. A free house can potentially create overdependence on the state and other negative behavioural patterns should the consumer feel that the state is unable to

provide what they perceive as their entitlement. This may lead to disorderly conduct and unmanageable expectations.

Advocates of neo-classical economics assume that markets are harmonious, self-regulating mechanisms and, in addition, postulate that market forces operate more freely and effectively when unregulated. Such an approach implies a system that lacks crucial insights and is certainly unhelpful towards achieving socio-economic development and most importantly in empowering consumers. Borrower education cannot be simply left to the market (lender) discretion if there is any desired outcome intended through that process.

It seems that private markets in South Africa are much more a consequence than a cause of economic development. The market economy approach illustrates that financial institutions do not voluntarily generate the innovative capabilities that should underpin the economic development and transformation required to correct low income housing market shortcomings.

For this to happen, policy instruments, legislative frameworks and effective regulatory mechanisms are fundamental in order to deal with current challenges. Private sector performance needs to be measured by the state and this will compel it to adhere to regulatory frameworks that will assist in achieving a better balance between housing availability and the needs of consumers. The application of these model to the testing of the problem statement appears to have some limitations and little effect in terms of the investigation.

I established that the theoretical principles underpinning the Keynesian model are the most relevant and appropriate to the study given their emphasis on the economic behaviour of individuals (borrowers) and and the conduct of the market (lenders). Through the application of Keynesian theoretical assumptions and suppositions I endeavoured to establish pragmatic findings in my investigation.

2.9 Homeownership, borrower education and borrower behaviour

This section deals largely with homeownership and the actual meaning of owning a property as an asset. The section demonstrates the importance of borrower education as an essential element in empowering homeowners to be responsible homeowners by exhibiting encouraging financial behaviour.

2.9.1 The importance of ownership

Carr (1992) affirms that access to homeownership is regarded as a societal goal. He further establishes that the “variation in homeownership rates has traditionally been explained by conventional tenure choice determinants such as household income and the relative price of owning as compared with renting” (Carr, 1992: 334-335). Corbidge et al. (1994) explains that housing finance has not been immune from the pressures of new technology, greater interest rate volatility and deregulation. Further, assert Corbidge et al. (1994), in a number of countries new intermediaries have entered the market for housing finance, a market which in many cases has been dominated by specialists. A range of factors has encouraged newcomers to enter the field (ibid).

Broadening his theoretical considerations, Corbidge et al. affirm that the difficulties encountered in international lending, particularly lending in less developed countries, have encouraged major international banks to concentrate more on personal banking, a key element of which is the provision of loans secured on a first mortgage (ibid). “Mortgage lending for owner occupation is seen as highly attractive in view of the security offered by the underlying asset” (Corbidge et al. 1994: 284).

Recognising this linkage, Ambrose (2000) finds that competition in the mortgage servicing industry and the resulting homeownership rate spurs the development of new sources of operating efficiencies (ibid). As a result, the mortgage industry is rapidly developing loss-mitigation systems designed to allow mortgage servicers to identify and manage delinquent borrowers with the greatest risk of foreclosure (Ambrose, 2000).

Given this, it is vital to note that housing represents significant asset accumulation, particularly for low income households that invest savings and other resources in their home. Measured by increase in asset values, people are much more likely to borrow money to buy a house than to buy shares. Housing loans and mortgages are inherently distinct from any other retail loans, e.g., micro-loans or unsecured loans. This is because a house is regarded as the single biggest investment a person makes in their lifetime.

This simply implies that a consumer seeking a home loan does not just require finance but also all the support that goes along with homeownership. Importantly, a borrower requires ancillary services such as loan counselling or borrower education, which encapsulates many aspects including legal advice to ensure that the title of the property is clear and technical advice to ensure that the structural aspects of the property are in order (NHFC Report 2007).

It is these significant service elements that distinguish the calibre of services rendered. For instance, in South Africa the National Housing Policy (NHP), through the National Education Programme (NEP), is very clear on the need to empower borrowers. The policy recognises that many of the problems associated with the provision of finance and the exploitation of consumers are related to very low levels of awareness and understanding of the technicalities around housing and housing finance amongst the majority of South Africa's population.

This historic disadvantage, with its foundations in the limited exposure that people in the past were given to these issues, has to be vigorously addressed. While this is all well and fine, and forms a vital component of housing finance, such a drive needs to be implemented thoroughly in conjunction with every stakeholder in the sector. The historical background of disadvantaged or low income households, most of whom are black Africans, can be best understood from Cuellar's submissions. Cuellar (1987) reminds us that "Africans were denied fundamental rights; *inter alia*, the right to own land, the right to settle on land outside of reserves and the right to enter a proclaimed area without permission" (Cuellar 1987: 103).

Cuellar's assertions were widely supported by the United Nations Declaration on Social Progress and Development, which recognised the social functions of property - including land - and called for homeownership that ensured equal rights for all (Economic and Social Rights Report, 2000:). This report further recognised that specific groups (the poor, women and indigenous people) had been identified as requiring positive legislative and other measures towards the realisation of their property rights (ibid). In South Africa, it was reported that the majority of citizens were not adequately housed and lacked security of tenure, and that the country lacked a properly functioning housing market (Department of Human Settlements Report, 2011).

2.9.2 Understanding ownership benefits

Without information and knowledge about property acquisition an uninformed borrower is unlikely to realise the ultimate benefits of owning a house. Similarly, in the absence of borrower education it is improbable that low income homeowners will fully comprehend both the benefits and the risks inherent in ownership. The lender is duty bound to empower borrowers through a borrower education process on the intricacies of purchasing and owning a house. Owning a house is, in African culture in particular, associated with respect and social standing. Homeownership does not only fulfil social standing aspirations but also provides households with an economic opportunity to move up the economic ladder, a house being an asset that appreciates in value over time.

According to the Department of Housing and Urban Development (HUD) (1995) report, homeownership is a good investment that increases wealth for families of all races and incomes (ibid). Critics of homeownership have pointed out that that the economic benefits of homeownership for lower income families should also be balanced against its financial risks (ibid). The lower average incomes and educational attainment of these groups make them particularly vulnerable to economic downturns that can result in job losses and eventual foreclosures (ibid). It is, nonetheless, important to note the advantages of homeownership.

2.9.3 The regulatory role of the state

While the prospect of owning a house is alluring, it can also be daunting if a borrower gets into financial difficulty, which might occur if a borrower is never taken through a process of empowerment exploring his/her roles, responsibilities and obligations. Melling (1980) explains how important the role of state is in this instance. Melling (1980) argues against the limited manner in which the state influences and redirects market forces to meet specific social needs and social problems by explaining that this can have negative outcomes (Melling (1980)).

Melling (1980) further notes that the most fundamental issue is the impact of the state on society as a whole, as well as the value that would be added by effective local government structures. Referring to the British housing system, he asserts that the root cause of the housing problem stems not so much from fundamental social or economic conditions but from the absence of any clearly defined purpose or intention on the part of government to deal with proven difficulties (Melling, 1980). Further, Melling (1980) firmly states that key to solving the country's problems are to find the correct principles of administration. He advocates state intervention guided by expert advice and rational administration (Melling, 1980).

Melling's (1980) supposition, which reflects mostly a Keynesian model perspective, is incorporated and extended by Rosenberry and Hartman (1989) when they emphasise, from the perspective of the US model, that "the state's role is one of facilitating the capital accumulation process (for example, that of the big banks) while at the same time making some attempt to legitimise itself in the eyes of the public" (Rosenberry & Hartman, 1989: 144). Rosenberry and Hartman's theoretical considerations corroborate with Nzongola-Ntalaga and Lee's (1997) argument that "the state is not merely an arbitrator in disputes; it acts as both a contributor and a manager in issues of national interest" (Nzongola-Ntalaga & Lee 1997: 104).

Rosenberry and Hartman (1989) draw particular attention to the premise that the state must attempt to create or maintain conditions for social

harmony and withdraw support for a capitalist system that openly uses its coercive forces to help one class to accumulate capital at the expense of other classes. Rosenberry and Hartman conclude by illustrating that such a state loses its legitimacy and undermines the basis for loyalty and support (Rosenberry & Hartman, 1989). This is a position reiterated by Naidoo (2011), when he states that weaknesses in capacity are often most serious in the disadvantaged areas where state intervention is most needed.

Melling, Rosenberry, Hartman, and Naidoo's philosophical assumptions reflect constructive and meaningful conjecture. Doubtless, deregulation helps institutions at the expense of consumers. This has been confirmed by an examination of the principles underneath the free market theoretical framework discussed earlier. The role that the state plays in this context is emphasised by Calvita and Mallach (2010) when they show how privatisation and deregulation have affected countries in uneven ways. In countries such as the United States and the United Kingdom, major changes in the role of the state have occurred while in countries such as Germany and France the move to liberalisation has been softer and less pronounced (Calvita & Mallach, 2010).

Calvita and Mallach's (2010) findings underscore the significance of the state's function relative to private sector operations. The absence of protection standards has allowed lenders to gain hegemonic positions that aid them in accumulating profits at the expense of unwise borrowers. For example, variable rate mortgages shift the inflation risk to the borrower and result in higher average borrowing costs to cover the increased price of funds. The very same disempowered borrower then defaults as a direct result of increases in loan repayments due to rising mortgage rates that s/he may not be aware of. Karley, (2003) emphasises that many borrowers are unaccustomed to formal credit and financial obligations. In addition, many people are not aware of the implications and conditions of a mortgage loan or do not fully understand the concept of homeownership through debt (Karley, 2003). The absence of adequate information is a major impediment to the mortgage evaluation process. (Karley, 2003).

Thus, non-payment behaviour could be the result of a lack of borrower understanding of credit contracts, as well as a lack of financial literacy coupled with irresponsible lending behaviour. Du Plessis (2011), in Prinsloo, (2011), stresses that the South African culture of overspending is often exacerbated by the recklessness of banks and other financial institutions. He refers to a case in the Eastern Cape in South Africa, where ABSA granted a pensioner a bond of R350 000 with a monthly instalment of R4 200 when the man and his wife had a joint monthly income of only R3 700 and monthly household expenditure of R2 500 (Du Plessis, 2011). The loan was scrapped in the courts because of the bank's reckless lending practice (ibid). Moreover, Du Plessis (2011) states that while the case served as a warning to banks about reckless lending - particularly lending related to mortgages - a new trend in irresponsible lending to consumers has been noted (Prinsloo, 2011).

This demonstrates yet again the flaws inherent in neo-classical frameworks aimed at promoting the freedom of lender operations with little regard to uplifting consumer standards and well-being. This, conversely, demonstrates the import of a Keynesian principles as model that focuses on the economic behaviour of borrowers and promotes a greater role for the state in the private sector market. This is particularly imperative, argue Calvita and Mallach (2010), given that in general the state's share of housing production is just five percent, with the rest driven by the private sector (Calvita & Mallach, 2010).

2.9.4 The cost of ownership and borrower behaviour

The housing finance revolution has made it much easier for borrowers to access mortgage credit and purchase their own homes. It appears that some consider this to be a good development, although it must also be noted that there are also countries (e.g., Germany and Switzerland) where the standard of housing seems very high in spite of a much higher proportion of renters (Hallett, 1977).

It would seem that borrowers today also have many more options within the mortgage contract. Debt servicing obligations can be tailored to allow households to overcome shocks of various sorts. For instance, households may opt to extend the loan term when faced with financial difficulties, or renegotiate the terms of the contract. Ambrose (2000) states that the relationship between property value and mortgage default is the backbone of modern mortgage pricing models (Ibid).

The above-stated theoretical frameworks establish the essence and financial consequences of owning a property. I hypothesise that default incidence is positively related to homeownership costs and, in particular, to the pricing of the mortgage instrument. Ambrose (2000) argues that mortgage pricing models recognise two explicit options embedded in mortgage contracts: the right to default (foreclose) and the right to prepay (Ambrose, 2000). These options, illustrates Ambrose, also contain implicit options to delay default or prepayment (Ibid).

Furthermore, the interaction of these explicit termination options grants an additional implied option to substitute one method of termination for the other (Ambrose, 2000). Traditional pricing models provide valuable information to lenders concerning the impact of changing underwriting guidelines on borrower exercise of prepayment and default options (Ambrose 2000).

Ambrose's theory has been sketched and mapped out by Magri and Pico (2011) in their model illustrating the degree to which the interest rate on a mortgage is correlated with the household credit risk. Magri and Pico (2011) show that when lenders increase interest rates too much they end up attracting mainly highest risk borrowers (this is also known as *adverse selection*) (Magri and Pico, 2011). In such cases, it is therefore rational for lenders to fix an upper-bound for the interest rate and reject the applications of borrowers perceived to be highest risk, resulting in an equilibrium credit rationing (Magri & Pico, 2011). However, this result should be less frequent in the case of loans such as mortgages, where collateral can be used to screen borrowers and to alleviate the asymmetric information problem (Magri & Pico, 2011).

This is only possible if borrowers are fully informed about the process. This section outlines the impact that monetary fluctuations have on the cost of ownership as well as on borrower behaviour, something that is also entrenched in the assumptions of the Keynesian model discussed at the beginning of this chapter. The cost of owning a house, especially in the absence of information that empowers the homeowner, can be overwhelming.

This could serve as a downside to ownership realisation, given that sound decision-making by households requires sufficient access to relevant information. Ultimately, this impacts on the borrower's behaviour. For instance, a borrower needs to clearly understand the obligations of owning a house and it becomes the responsibility of the lender to ensure that they are educated about the processes of purchasing a house long before it is acquired.

This is an essential aspect of assisting a prospective homeowner in determining his/her financial ability and readiness to own a house. For example, when a lender grants credit recklessly, the borrower incurs more cost as he was allowed to qualify for finance despite lacking a positive affordability ratio. This type of predatory lending is risky as it impacts on borrower behaviour.

When a borrower is unable to meet his/her repayment terms, it ultimately results in the borrower losing his/her house while also remaining liable for any outstanding debt the lender may have incurred in the foreclosure or repossession process. Being foreclosed on does not only affect homeowners' social standing but also damages the borrower's credit rating and would make it difficult to obtain future finance. The magnitude, incidence, and longevity of such impact on families can be determined by the kind of support provided to families in navigating the difficult life changing phase. Foreclosures have a distressing wide impact on families, the credit market, and economy in general. Thus, there must be a willingness by lenders to do all what is required to empower families about responsible homeownership to encouraging positive borrower behavior.

The absence of such interventions and efforts would foment a negative attitude, distrust and undesirable behaviour towards the lender. Another potential downside here is that the borrower's credit profile would be contaminated, affecting his/her future access to credit. For all the reasons stated above, borrower education appears to be an imperative measure method in determining an aspirant homeowner's affordability ratio in acquiring a house and the economic variables, such as interest rates, inflation and insurance, that are factored in when assessing mortgage affordability.

Hallett (1977), when examining the effects of inflation on a mortgage loan borrower, notes that low inflation also has the effect of making owner occupation more attractive, as the cost of funding becomes affordable (Hallett 1977). Furthermore, he notes that when nominal interest rates were lowered to near zero in Germany, it resulted in an increased demand for owner occupation with no reported cases of non-payment (ibid). Hughes and Sternlieb (1988) argue that it is the cost of money rather than bricks and mortar which is, for many, often the principal determinant of housing accessibility (Hughes and Sternlieb, 1988).

The assertions by Hughes, Sternlieb and Hallett bring to light two important issues; namely, the ability of a borrower to pay (which may be influenced by a rising cost of ownership); and the cost of capital, which plays an essential part in the affordability ratio and probability of repayment, as observed in Germany by Hallett (1977). This illustrates that the process has to be carefully explained in order to ensure proper understanding.

The complexities of ownership underscore the importance of empowering borrowers by informing them of all possible implications. Santomero (2008) highlights that in understanding the mortgage market in financial markets, the issue of credit risk pricing rests firmly upon the borrower's creditworthiness. Santomero (2008) further illustrates that the ability to honour monthly mortgage payments consisting of both principal loan and interest that are to be paid until the loan is amortised and the borrower's

understanding of the impact of compound interest on mortgage debt is significant to becoming a responsible borrower (Santomero, 2008).

Such intricacies are elaborated on by Devpruth (2011) in Ntingi (2011). Devpruth (2011) observes that borrowers in South Africa use unsecured loans to raise deposits with which to buy homes, in spite of the fact that lenders charge interest rates of up to 32% on unsecured credit - much higher than the prime rate, which at the time of this study was sitting at 9% (Ntingi 2011). Watanabe (1998) argues that “mortgage lending is inherently risky but that it is the way in which the risks are managed that distinguishes a successful housing finance process from an unsuccessful one” (Watanabe, 1998: 76).

The assumption here is that markets that are properly regulated by government laws will ensure that borrower education programmes and protection measures are in place, thus ensuring that lenders act in a responsible manner and that investors and borrowers in particular will be more willing to participate. This represents a desirable behavioural pattern across the spectrum.

This is expected to provide guarantees to both borrowers and lenders, and such inherent risks that are highlighted by Watanabe (1998) would be mitigated. Undoubtedly, the state and central banks play a vital role in many countries in regulating, supervising and monitoring banking institutions and their relationship with customers. Struyk (1976) defines the homeownership cost index as the monthly cost of a dwelling, composed of five separate categories (Struyk, 1976):

- (i) mortgage interest;
- (ii) maintenance and repairs;
- (iii) property taxes;
- (iv) insurance, and;
- (v) purchase price of the house.

When Struyk(1976) sheds light on homeownership costs, he adds some useful factors, such as mortgage interest rates, insurance and property taxes (Struyk, 1976). This assertion is reinforced by Collins (2007) who

notes that homeowners act as both consumers of housing services and as investors in a durable asset, with joint consumption/investment choice of owner occupation being affected by a variety of short and long term influences (Collins, 2007). These include income, house and land prices, operating costs, depreciation, mortgage interest rates, tax rates and expected capital gains, all of which impact negatively on homeownership (ibid). These indices are all instrumental and have to be understood by any prospective borrower - a critical element of borrower education (Collins, 2007).

This is corroborated by Bucks and Pence (2008), who demonstrate that borrowers may benefit from this risk when interest rates fall as their payments can decrease without the hassle of refinancing. But, when interest rates rise, either because overall interest rates rise or because the mortgage's initial lower-rate period expires, borrowers may be hurt (Bucks and Pence, 2008). Borrowers who are not prepared for higher payments and cannot lower these payments through refinancing may be forced to either reduce their spending or default on their mortgages, (Bucks and Pence, 2008).

2.9.5 Education, ownership and behaviour

While borrower education in South Africa is a new concept, introduced only in the late 2000s, this is not the case in some other parts of the world. Confirming this view, Hornburg (2004) observes that the homeownership counselling industry exists in a rapidly changing and growing financial services industry. He further states that the last decade has seen the development of an increasingly specialized and segmented financial services market offering an explosion of choice and options but requiring a far savvier consumer to safely navigate these choices (Hornburg, 2004). This is illustrated by Carswell's (2009) assertions that the housing counselling industry came into existence with the passage of the 1968 Housing and Urban Development (HUD) Act in the United States of America (Carswell, 2009). "This legislation was advanced with the help of testimony from low- and moderate-income advocates who believed that proper counselling in budget and credit matters would assist lower-income

families in becoming successful homeowners” (Carswell, 2009: 340). During much of the 1970s and early 1980s, the housing counselling industry was predominated by delinquency and default counsellors who primarily met only with clients who were already on the brink of foreclosure (Carswell, 2009).

The suggestion that borrower education is not a new subject within the homeownership sphere, especially in the case of low income homeowners, is substantiated by Quercia and Spader (2008), who argue that the provision of homeownership education and counselling boomed during the 1990s. Stricter enforcement of the Community Reinvestment Act (CRA), along with the imposition requirements by institutions such as Fannie Mae and Freddie Mac, fuelled the creation of a large network of homeownership education providers and programs (Quercia and Spader, 2008).

Borrower education is viewed as a fundamental necessity for low income homeowners, but is even more essential for those with relative low formal academic qualifications. This is supported by the generally held premise that formal education enlightens citizens on all facets of life orientation. Those who have acquired good levels of formal education are often perceived to be more empowered to make wise financial and credit related decisions.

Furthermore, formal education appears to be pivotal in understanding the on-going costs and value of ownership. This is supported by the hypothesis that borrowers who have acquired greater levels of formal academic knowledge and education are likely less likely to default on their mortgage repayments. Suggesting that the propensity to default or exhibit other forms of non-payment behaviour is higher in those households where there is a low level of academic training. In supporting this argument, Huston (2010) explained that higher education is associated with more financial knowledge, most likely because individuals with more education have less difficulty acquiring financial knowledge and therefore incur lower learning costs (Huston, 2010).

Financial literacy and an understanding of financial variables is crucially important for low income households (Huston, 2010). Changes in banking variables such as interest rates that affect monthly instalments on mortgage repayments could be a challenge to homeownership and are likely to affect borrower's behaviour. Interestingly, Egebo et al. (1990) disagree with this view, and argue that interest rates or income levels have no effect on homeownership.

These assertions contain serious limitations and their theoretical assumptions demonstrate implicit shortcomings. Arguments suggesting that interest rates or income levels have no impact on homeownership are unsound and have the potential to distort the market or to be construed as factual, in which case there is a potential risk of misinformation affecting consumer behaviour, attitudes, beliefs and expectations. Such behavioural patterns could in turn impact negatively on mortgage repayment status, for instance when a consumer realises that the payments s/he has been making over the last two or so years to service a home loan have now been increased substantially due to inflationary pressures which have pushed up the lending rates.

The introduction of a wide variety of alternatives to fixed-payment mortgage has generated keen interest in exploring the relationship between default incidence and economic variables, especially since some alternative mortgages relate payment obligations to contemporary economic variables (Campbell, et al,1983). Thus, formulate the basis in which the floating interest rates impact entails on low income homeowners ability to afford mortgage repayments. The table below explains precisely how such an effect in interest changes is filtered through to a borrower. For instance, the table demonstrates the importance of income relative to home loan size, as well the impact of interest movements relative to repayment cost. The table shows that monthly repayments on a R300 000 mortgage loan over twenty years were R2 995 at a 10.5% interest rate and are now R4 062 at a 14.5% interest rate. This means that an interest rate increase of just 4% will set a homeowner back by more than R1 067 extra per month. This is a huge amount of money for a low income household.

Table 2: Mortgage amount and repayment at varying interest rates

Mortgage Amount	Repayment at different mortgage rates										
	10.50%	11.00%	11.50%	12.00%	12.50%	13.00%	13.50%	14.00%	14.50%	15.00%	15.50%
100 000	998	1 032	1 066	1 101	1 136	1 172	1 207	1 244	1 280	1 317	1 354
200 000	1 997	2 064	2 133	2 202	2 272	2 343	2 315	2 487	2 560	2 634	2 708
300 000	2 995	3 097	3 199	3 303	3 408	3 515	3 622	3 731	3 840	3 950	4 062
400 000	3 994	4 129	4 266	4 404	4 545	4 686	4 829	4 974	5 120	5 267	5 416
500 000	4 992	5 161	5 332	5 505	5 681	5 858	6 037	6 218	6 400	6 584	6 789
600 000	5 190	6 193	6 399	6 607	6 817	7 029	7 244	7 461	7 680	7 901	8123
700 000	6 989	7 225	7 465	7 708	7 953	8 201	8 452	8 705	8 960	9 218	9 477
800 000	7 987	8 258	8 531	8 809	9 089	9 373	9 659	9 948	10 240	10 534	10 831
900 000	8 985	9 290	9 598	9 910	10 225	10 544	10 866	11 192	11 520	11 851	12 185
1000 000	9 984	10 322	10 664	11 011	11 361	11 716	12 074	12 435	12 800	13 168	13 539

Source: Absa Bank, 2008

If a borrower has not been helped to comprehend fully and understand the impact of these indices through borrower education programmes, this could significantly impact on their behaviour, and their attitude is likely to change upon realising the impact of such adjustments on their repayments.

A low income earner (perhaps any borrower) who has not been informed of the bearing of monetary fluctuations on mortgage repayments is unlikely to accept a 4% change which, for a R300 000 mortgage loan over twenty years, translates into an extra R1 067 a month. This could be viewed by borrowers who are not empowered as dishonesty on the part of lenders, and might lead to distrust, tensions and antagonistic relationships.

As a result, the borrower might opt not to continue with repayments or instead refuse to factor in the adjustment but continue with the original instalments. Another form of borrower protest could be to neglect the house. The owner may feel that increases in monthly payments are due to the lender's desire to repossess the house, hence encouraging negligence. The resultant outcome will be negative both for the lender and the borrower.

In addition, borrower education would assist a homeowner in understanding the importance of savings in dealing with mortgage loan interest. Savings can be used to pay part of the principal debt in order to shorten the term of the mortgage loan, depending on the amount paid. For instance, the bank borrows capital from the Reserve Bank at 5, 5% (repo rate) (June 2012 applicable rate) and lends to the low income borrower at prime plus 3% (June 2012 prime rate 9%). The bank makes a 3.5% profit (difference between repo and prime rate) from the funds borrowed from the Reserve Bank before lending the money.

A simple formula from a mortgage calculator shows that if a bank grants a mortgage loan of R200 000 at 12% over 20 years, repayments would be R2 202 (excluding origination, service and insurance fees); the total payable interest on the debt is R326 000 and the total loan amount is R528 000. However, if a homeowner pays an additional R200 every month, an interest saving of R197, 614 is realised and the total payment term is reduced from 20 years to just 13 years. The estimates excludes other hidden costs that the banks factor in when a house is bought, which include administration fees, initiation fees, credit life insurance and homeowner's insurance. This is vital information that every homeowner should be educated about, especially low income households.

It is for this reason that it becomes an imperative to educate homeowners on important aspects of homeownership. This is a view supported by Struyk (1976) and elaborated and reinforced by both Watanabe (1998) and Collins (2007). Martin (2007) notes that education has an impact on all borrowing decisions even the most complex ones. Moreover, within the South African housing finance system the pricing of loans is largely determined by two factors: the cost of funding and the risk of lending in the different market segments (NHFC Market Report, 2009).

These factors have a negative impact on homeownership and, as a result, the country still experiences problems with evictions and the foreclosing of mortgage loans due to the fact that cost or interest rates for individuals in the low and moderate income categories are higher (this is confirmed by the SAHRC inquiry). Risk-based pricing in this market is quite high as

banks use it as a basis for collateralisation. Further, it is argued that the primary reasons many people are unable to enter the housing market include factors such as affordability and information asymmetry.

Thus, it can be strongly contended that empowerment contributes significantly to a consumer's ability to make informed judgments and take effective decisions regarding the use and the management of money matters. This contention is supported by Marchand (2000), who argues that information is a vital tool which can be employed to enhance a customer's knowledge, understanding and overall loyalty, and also in order to help customers with their decision-making (Marchand, 2000). Financial literacy and ability to pay is correlated with education, income and age, establishes, Marchand (2000). Lenders often assume borrowers know more about financial matters than it is actually the case, and those with high incomes and better levels of education are considered more accountable (ibid).

I am of the opinion that young homeowners are more susceptible to non-payment behaviour on their mortgage loans than middle aged homeowners. This is due to an age-correlated appetite for credit and provides fertile ground for lenders, putting young homeowners into high levels of indebtedness and causing them to default on their credit instalments. Campbell et al, (1983) argue that borrowers in new homes tend to be younger and more transient and may be more likely to experience the kind of personal and financial problems that ultimately lead to default (Campbell, et al, 1983).

Reichenberger (2008) similarly asserts that younger heads of households - 21-34 years old - are more likely to be delinquent with their mortgage payments (Reichenberger, 2008). Older heads of households, he reasons, typically demonstrate a degree of stability (Ibid). Reichenberger further illustrates that older heads of households have a strong sense of responsibility that is not always found in younger owners (Ibid).

Monticone (2010) demonstrates that defaults by young adult homeowners might occur because younger generations are not as financially wise as

older ones, and have not been exposed to financial services (Monticone, 2010).

This view is substantiated by Dryburgh (2011). Dryburgh affirms that young people are, due to their mortgage impaired records and unaffordability factors, now increasingly opting to live with their parents (Ibid). A survey conducted in 2010 by the Pew Research Centre on Social and Demographic Trends in the US found that the majority of homeowners in America found unacceptable for homeowners to stop mortgage payments. Of those who said it was acceptable for home-owners to stop mortgage payment, 21% were young adults and only 13% were older adults (Ibid).

This demonstrates that purchasing a property, especially for young adults who are also, for the most part, first time owners, can be both a frightening and exciting process. The excitement can nevertheless be short-lived and the process can become daunting in the absence of pre-purchase and purchase borrower education programmes. The home-buying experience and the running costs of homeownership have to be carefully planned and adequately budgeted for and potential borrowers should be prepared for this.

According to the Freddie Mac report (2008), homeownership education provision is a crucial part of ensuring a positive buying experience for homeowners and, in particular, first time buyers who are also mostly young adults. Homeownership education should be provided by someone not directly involved in the loan origination process or mortgage approval process (Ibid). Lack of borrower education seems to have an effect not only on homeowners but also on aspirant purchasers and sellers. Borrowers feel that financial information is difficult to obtain and understand, and a lack of access to information and borrower knowledge also potentially prevents owners from understanding the processes involved in buying and selling a house.

For instance, the 2003 study by Shisaka on Township Property Residential Markets (TRPM) shows that black townships are under increasing social

and economic pressure, and that the full potential for regeneration and development is not being realised (TRPM Report, 2005). An estimated R68, 3 billion of residential property is reportedly locked in the assets as the majority of the owners are not realising the actual value of their properties and the significance of trading up (ibid).

Consequently, upon realising the importance of such gaps for homeownership in particular those homeowners whose property value have equity due to capital appreciation, the TRPM study recommends an extended property ownership campaign and extensive long term education and promotional programmes aimed at empowering consumers (TRPM Report, 2005). To date it would seem that no stakeholders appear to have taken this under consideration.

Accordingly, it would seem that there is a genuine need to design programmes that benefit society in general, empower homeowners in particular and create responsible consumers. Homeowners should be made aware that renovations translate into an asset investment in the form of illiquid capital, which can in turn be used as future collateral or security.

The South African housing model is often benchmarked against that of the US. Thus, it is important to draw some lessons from such models. The experience of the US in the field of default management suggests that in properties where there is a component of equity in the mortgage loan structure, the homeowner is more likely and willing to cooperate in downscaling in the case of unemployment, or in rectifying the default through loan resale.

This is because the average homeowner in the United States has an understanding of housing investment and realises the asset value of a house. As a result, the majority of buyers in the low income housing market are more willing to enter the market and show a clear sense of payment responsibilities and obligations to service the debt (although the sub-prime crisis has affected this behaviour in some ways). The Financial Crisis Inquiry Report (2011) investigating the causes of the financial crisis in the United States found that lenders, estate agents, rating agencies and

weak regulations were responsible for the sub-prime crisis, and that borrowers had played no part in causing the crisis, being primarily its victims (FCIR, 2011).

2.9.6 Household income and expenditure

The section above sketched out the impact that monetary fluctuations have on affordability, thereby resulting in behavioural change. Borrower education is a vital component in low income households; for homeowners, budgeting is crucial. This is validated by Wachter (1996), who argues that financial counselling should also include financial assistance programmes in the form of interest rate payments, second mortgages, emergency relief and structural incentives by lending institutions (Wachter, 1996).

It is essential that homeowners should adequately understand their cash flow status in the context of household income and monthly expenses, especially fixed expenses and variable costs that form an essential part of a homeowner's lifestyle, e.g., home loans, vehicle costs, education fees, etc. This particular section outlines the crucial nature of borrower education around budgeting and household expenditure, and also explores how households rank their needs and wants.

A study commissioned by the NHFC in 2001 and updated in 2003 explored the dynamics of household affordability ratio and household expenditure amongst aspiring homeowners. The study focuses on the low income households, a market defined in 2001 by the NHFC and the Banking Association of South Africa (BASA) as households earning between R1 500 and R7 500 per month (NHFC Report, 2003).

The study shows that expenditure on housing in 2003 was relatively low, with only 23% of households budget spent on housing primarily repayments but it must be borne in mind that this expenditure is not that of homeowners but of prospective borrowers actively looking to buy a house . (NHFC Report, 2003). In simple terms, what this describes is the existence of a gap between the prospect of ownership and the probability to default. In other words, once the mortgage loan is granted the borrower might be

unwilling to allocate the required 25-35% of gross income to service debt. This is due to the prioritisation of various items on their monthly budget items, often including clothes, groceries and service payments that receive special attention.

When constructing a budget, a low income homeowner who has not been taken through an empowerment in the form of borrower education will have little understanding of the implications of this prioritisation as the decision to purchase a house is unlikely to have been taken on an adequately informed basis.

According to Struyk (1976), for many households, “the purchase of a home represents the majority of its assets and mortgage payments constrain portfolio diversification” (Struyk, 1976: 43). He notes that for owner occupants the issue of a budget line also refers to the comparative cost of maintaining a unit, and considers maintenance to be a strategic investment towards capital improvements (ibid). In South Africa, the issue of household income plus household expenditure relative to percentage income allocation for housing was, until June 2007, based on the ratio of 25-35% of household income.

The introduction of the National Credit Act (NCA) nullified the rule by factoring in monthly household expenses. In essence, the model was not much different from the British and US models. However, many of South Africa’s low income groups have never treated household income as a top priority when budgeting, even though they recognise both the security of tenure and the community recognition associated with homeownership. The NHFC research survey report (2003) indicates that the distribution of household expenditure for housing remains a low priority, as found by the NHFC research survey. According to this survey, the list of monthly household expenditure for low income households in order of priority is as follows, (NHFC Report, 2003):

- (i) household groceries;
- (ii) education;

- (iii) transport;
- (iv) housing;
- (v) personal loans;
- (vi) clothes;
- (vii) medical expenses;
- (viii) the lottery;
- (ix) entertainment; and
- (x) traveling and holidays.

The above monthly household expenditure list of priorities of low income households had been a historical phenomenon. This is suggestive that households expenditure and budget allocation do not really receive the necessary financial attention that is required. Schorr (1964) finds that it is harder for low income families to adjust to overpayment for shelter than it would be for those who have more income (Schorr, 1964).

For low income families he argues, referring specifically to Negro families in the US, the choice is frequently between shelter, food or clothing (ibid). Payment for school fees, books or anything else that might bring future gain is considered a sacrifice (Schorr, 1964). These observations indicate that housing affordability may be a challenge for many low income families, who may not recognise the value that a house realises over time due to both a lack of borrower knowledge and low levels of income.

This underscores the significance of enlightening and educating potential borrowers about all the processes involved when purchasing a house, especially the issues of affordability and post-purchase budgeting processes, given that there are on-going costs to homeownership. According to Aboutorabi (2000), affordability can be measured by two methods. The first is to employ the 'market-basket' concept, measuring income against the costs of living necessities like food, clothing and so forth with the balance indicating housing affordability (Aboutorabi, 2000),.

The second method is to adopt the reverse approach, shifting the affordability from housing to non-housing costs (ibid). In both approaches,

Aboutorabi argues, the balance between housing and living costs is the indicator of housing affordability (ibid). Further, since factors determining housing affordability differ between households, different situations of unaffordability emerge in real life. I find Aboutorabi's assertions enlightening and conceptually sound – it makes sense that unforeseen financial constraints lasting a month or longer could impact on a borrower's ability to honour their monthly mortgage repayments.

An uninformed homeowner would be unaware of how to address such a temporary predicament, and a lender might perceive resultant non-payment behaviour as deliberate. This could lead to an antagonistic relationship between lenders and borrowers that could have been mitigated through a process of borrower education.

2.9.7 Borrowers' perception of banks

The last section dealt mostly with affordability patterns and household expense ratio income for servicing debt. This section examines the borrower or homeowner's perception of the lender. The section intends to explore the critical elements informing perceptions and to explain the relationship between lenders and homeowners as well as the factors driving this relationship. Several explanations have been proposed for borrowers' views of banks.

The findings of Social Survey in 2003 show that 50% of the surveyed population of potential borrowers revealed that they did not even approach lenders to inquire about a mortgage loan. The primary reason given by these potential borrowers, according to the survey, was a negative perception of banks that can be further broken down into a fear of the repercussions of non-payment, a distrust of banks and their motives, concerns about endless debt repayment and a perception that banks were unfriendly (Social Survey Report, 2003). Other reasons included:

- Non-eligibility (as perceived by the respondents themselves, some of whom may have been mistaken in their assumptions that they would not qualify for housing finance on the basis of their incomes.

- Lack of information (people indicated that they didn't know anything about finance institutions or were still in the process of obtaining information).
- Preference for cash purchase (ibid).
- No need to approach lender (some people had obtained a loan elsewhere or had inherited a house).

The issues of negative borrower perception of banks and a lack of rapport between lenders and borrowers in South Africa is confirmed by the findings of another global study on customer satisfaction and consumer banking. According to the Global Consumer Banking Survey (2011), banks need to reconnect with their customer base by improving the customer experience (Global Consumer Banking Survey Report, 2011).

The report demonstrates that there is a clear demand for greater personal attention to customers, and that it is also evident that banks need to invest in improved communication channels and become more customer-centric across their operations (ibid). The report states that there is considerable room for improvement in the levels of channel efficiency, personalisation and integration that banks offer their customers (ibid).

The need for more information and education for aspirant homeowners, as highlighted above, was reiterated on a South African national radio station by a property consultant running an estate agency when she complained that banks did not provide clients with much needed information (SAfm Radio, 4 October 2011). The estate agent mentioned that she would often refer prospective buyers to banks only to have them return to her having been given no advice by the banks.

It is worthy to note that such shortcomings were recognised and classified as priority areas by the South African government as early as in 1994. According to the 1994 Housing Policy and Strategy for South Africa, many of the problems associated with the provision of finance and the exploitation of consumers relate to the very low levels of awareness and understanding of the technicalities around housing and housing finance

among the majority of the population of South Africa (Housing Policy and Strategy Document for South Africa, 1994).

This serious weakness with its roots in the limited exposure that the majority of people were historically given to these issues, has to be vigorously addressed (Housing Policy, 1994). A 2008 research report by US mortgage giant Fannie Mae on delinquent borrowers indicates that 57% of US mortgage defaulters are unaware of the workout options provided by lenders. Furthermore, the survey shows that efforts to get borrowers to contact counsellors are beginning to succeed, but that too many borrowers at risk remain unaware of such a service or alternatives that can help them retain their homes (Freddie Mac Report, 2008). The major problem revealed within the report is that service providers have been unable to contact borrowers in more than half of the foreclosures that Freddie Mac has experienced (Ibid).

At the time of the research report, Freddie Mac was helping an average of 1000 troubled borrowers a week to avoid foreclosures, either through reduced or delayed payments, loan modifications, repayment plans or other available options (Freddie Mac Report, 2008). One in four delinquent borrowers chose not to accept their lenders' invitation to discuss workout options (Ibid). They believed that there was no reason to do this since there was nothing the servicer could do to help (Freddie Mac, 2008). There seems to be some similarity between these US-based findings and the conclusions of the Social Survey in South Africa on borrower perceptions.

The only major difference is that the US report focuses on borrowers who were already in financial distress, while the South African survey focuses only on those borrowers who were actively looking to buy. In light of the US results, it appears that negative perceptions of lenders have reached levels that are unparalleled. This is demonstrated in cases where borrowers appear to have no options beyond consulting lenders but still preferred not to renegotiate terms or restructure contracts with them.

It becomes difficult for borrowers to have trust in lenders when in financial distress. Distressed borrowers may find it hard to believe that lenders are

indeed honest, have empathy or are genuinely interested in assisting them in preventing foreclosure. Worryingly, negative perceptions of lenders appear to spread, firstly within a family and then to the community and, eventually to broader society. The market cannot be just left in quandary with suppositions that it will correct itself, without any active effort and interventions.

2.9.8 The impact of education on behaviour

It is crucial when discussing the impact of a lack of borrower education on homeowners and its correlation with non-payment behaviour to also reflect more broadly on the role of education and behavioural change patterns in the context of other phenomenon.

This provides an opportunity to express the essence in which education and behaviour in other social settings becomes demonstrable, viz. voter education and HIV/AIDS education. According to Markle and Skinner, B.F. (1969), the behavioural approach is a theoretical orientation that emphasises the role of the environment in shaping desirable behaviours. Du Plessis et al. (1990) explain that the behavioural approach emphasises the importance of an individual's perception of his or her immediate environment and state of well-being (Du Plessis, et al, 1990).

This means that behaviour will in some cases be influenced by what an individual is exposed to. Friedman (2001) elaborates on this by stating that behaviour sets in motion a cascade of perpetual interactions, meaning that analysing an individual's behaviour without including an analysis of their surroundings is pointless. Behaviour, argues Friedman (2001), is part of an endless reciprocal interaction between an individual's genetics, their behavioural history and the environmental context in which the behaviour is performed (Friedman, 2001).

2.9.9 Voter education and its Influence on behaviour

Friedman (1998) argues that a stable and democratic society is impossible without a minimum degree of literacy and knowledge held by the citizenry and the simultaneous widespread acceptance of a common set of values. Friedman further states that the benefits of education may accrue either through the enhanced quality of participation by a given subset of citizens, or through broader participation among the citizenry (Friedman, 1998).

This is important, as education equips citizens with the cognitive skills they need in order to be effective participants in a representative democracy, increasing their abilities to select able leaders, understand the issues they vote on, act as a check on the potential excesses of the government and recognise corruption in leaders (ibid). Friedman (1998) also argues that education improves citizens' interest and knowledge of political issues, their involvement in the political process and, ultimately, the effectiveness of their political participation (Friedman, 1998).

This is an opinion also held by Haid (2003), who states that voter education encompasses the basic voter information that every voter must have available to them in order to arrive prepared at the voting station. Haid (2003), states that voter education provides the background attitudes, behaviour, and knowledge amongst citizens that stimulate and consolidate democracy.

In addition, illustrates Haid, (2003) that during an election, voter education will ensure effective organisation and activism by citizens in support of parties and/or causes - behaviour by citizens that is appropriate to a peaceful election, acceptance of the results and tolerance of competition and opposition. However, Haid (2003) warns that education on its own cannot sustain democracy.

2.9.10 HIV/AIDS education and its influence on behaviour

On HIV/AIDS education and behaviour, Van Dyk (2002) argues that there is only one weapon against HIV infection and AIDS: behavioural change.

Van Dyk (2002) finds HIV/AIDS education to be the single most important approach to curbing the spread of the virus, especially as people often find it extremely difficult to change their sexual behaviour.

The UN AIDS (2000) report shows that behaviour and interventions that include information, education and communication programmes, condom promotion programmes and other initiatives can bring about changes in high-risk sexual behaviour (UN AIDS Report, 2000). Such evidence is illustrated by Van Dyk (2002) when he shows the impact of education on safer sex practices and the dangers of unsafe sex practices like unprotected anal intercourse. Van Dyk (2002) furthermore demonstrates how in San Francisco, for instance, the gay community caused the annual rate of infection among gay men in that city to drop from 8 000 infections in both 1982 and 1983 to 1 000 a decade later and less than 400 by 1998 (Van Dyk, 2002).

The UN AIDS report (2000) shows how a mass media campaign to promote safer sex in Congo caused condom sales to increase from 80 000 in 1988 to more than 18 million in 1991. In Uganda, the percentage of teenage girls who had sex with a partner using a condom tripled between 1994 and 1997 (ibid). While the highlighted evidence-based reports indicate the value that HIV/AIDS education has added, especially in Uganda and San Francisco, it would however seem that education-based interventions in other areas are not as successful.

For instance, a report published online by City Press newspaper (28 October, 2008) suggests that government's numerous awareness programmes advocating abstinence and safe sex are not working, especially not amongst schoolgirls (City Press, 28 October, 2008). This conclusion is supported by a shocking rise in school pregnancies - the report states that about 4 000 Gauteng schoolgirls fell pregnant in 2007 despite some schools having programmes in place to educate learners about the dangers of engaging in unprotected sex (City Press, 28 October, 2008). These education-based interventions do not seem to be reflected in the behaviour and attitudes of learners (ibid).

Based on these and similar reports, it could be argued that sex education does not constitute an effective intervention in changing behaviours. These may be cases that are firstly isolated and, secondly, related to behaviours that are also influenced by the norms, culture and traditions of specific societal groupings. This means that the cultural practices and traditional religions observed in some areas that place emphasis on high fertility and polygamous marriages could lead people to have several sexual partners, thereby increasing their risk of catching HIV/AIDS.

It is important to look at how these educational interventions and awareness campaigns are advocated and promoted. Expressing the importance of taking responsibility for one's actions appears to be the most effective mechanism for getting the message through across the spectrum. In the case of voter education, empowered people are more likely to follow election campaigns in the media, discuss politics with others, associate with a political group and work on community issues. Kaplan and Kerner (1998) emphasise that behaviour therapy is designed for and meant to treat only learned behavioural problems (Kaplan and Kerner, 1998).

In summary, Chapter 2 has discussed the importance of borrower education and behaviour. The surveyed literature demonstrates that borrower education is a fundamental intervention for understanding homeownership, including the on-going costs of owning a house and the benefits of ownership. The chapter also illustrated the value that borrower education brings to a homeowner's financial behaviour in terms of them being able to understand the issues of compound interest, interest rate variations and the capital appreciation of a house as an asset in the form of equity.

Egebo et al. (1990) emphasise that changes in banking variables like interest rates that affect monthly instalments on mortgage repayments, could be a challenge for homeownership and affect behavioural patterns (Egebo, et al, 1990). The effects resulting from a lack of borrower education could be negative for borrowers and lenders. An uninformed borrower's financial behaviour and attitude is likely to change when

inflationary variables result in adjustments in repayments. A borrower might view this as dishonest conduct by the lender and decide not to honour the payments.

A lender, on the other hand, might consider a borrower's financial behaviour to be immature conduct and act accordingly. The type of behaviour exhibited by both lender and borrower could have a negative impact on relationships and the implications would be potentially calamitous. The perceived unreceptive behaviour and negative attitude of the lender will provoke and invite the worst behaviour from the homeowner. No one would emerge victorious as the bank would be left with a neglected property of which the market value has, in most cases, dropped substantially. The borrower would not only lose a roof over his/her head but, with an impaired credit record. This is because the creditor reports the defaulted mortgage account to the credit bureaus. In addition, the debtor would still be legally responsible for settling whatever amounts that the bank could not recover during the sales in execution process.

When a lender forecloses on a property, the hardest hit both socially and materially is the homeowner. This is because homeownership has significant social and economic implications and ranks high on aspirant homeowners' lists of personal and national priorities. Home ownership yields economic and social advantages for both individuals and communities. For a family, a home is generally its most significant asset and serves as its primary wealth-building vehicle. The reviewed literature consistently indicated that buying a home ranks among the top motivations for saving and investment strategies.

The literature review further underlined the value of property ownership. As a homeowner the borrower is not only contributing to property market stimulation but is also, among other things, participating in financial markets through credit worthiness. The house, while an illiquid asset, enables the owner to realise long term capital investments in the form of equity as property appreciates in value, affording them the long term benefit of either cashing in on their home equity or trading their property up and investing in an even greater return, creating both upward mobility

and secondary property stimulation. This means that the benefits of investment in such an asset-backed security outweigh the risks.

However, as illustrated in this chapter, in the absence of borrower education provision by lenders such benefits are unlikely to be realised. As demonstrated, the mortgage-backed loan is by its very nature an interest bearing security. Both the holder of the mortgage (borrower) and the issuer (lender) who originates these loans should understand the value that borrower education adds in order to avoid such investments becoming non-performing assets. Both the conduct of the lender and the financial behaviour of the borrower are crucial components as far as the performance of these assets is concerned.

2.9.11 Conclusion

It should be stressed that education is important across all stages of the home buying and ownership process. Affordable housing groups in developed markets have recognised the value of training and assisting families in their quest for homeownership and they have also seen the importance of such training and assistance in ensuring that families keep their homes. Pre-purchase and post-purchase counselling is an integral component of loss-mitigation programmes designed to help families work out budgets that will allow them to meet their mortgage obligations and other housing expenses.

These programmes also help borrowers understand options and resources available to them in the event that they fall behind in their payments because of financial emergencies, as well as the value of maintenance. Borrower education is vital for providing people who have not previously encountered mortgage lending and other housing related products - whether in emerging or established markets - with the necessary knowledge, skills and confidence.

The role of education is essential to the extent that behaviours and attitudes seem to be linked and shaped by knowledge and to the extent that it helps potential homeowners recognise the value of property as an

investment. The literature cited above appeared to point in this direction as well. The report by the World Bank (1993) in particular supports this view by suggesting that housing as an asset is a major motivation for household saving and significantly influences household budgets (World Bank, 1993).

An article in the Money section of the Sunday Times newspaper (3 May 2009) entitled, "Buying a home costs more than you think" confirms the important role that borrower education plays in budget and cash flow management both at purchase and post-purchase levels (Sunday Times, 3 May 2009). The article reveals that apart from the purchase price of the house there are several other linked costs that can come as a malevolent surprise if they have not been budgeted for (Ibid). It is therefore always wise to work these into an overall financial plan before taking the plunge. Home buyers hardly ever think of the possible repair costs associated with their newly purchased home, nor those related to its maintenance, concludes the article (Sunday Times, 3 May 2009).

In the US, borrower education and mortgage lending form part of efforts to comply with the federal Community Reinvestment Act (CRA). What has also transpired from the above discussion is that the role of the state - through policy measures and legislative instruments - is immeasurable where the intention is to build communities and create responsible citizens. The government might play a role in mending the prevailing unsavoury relations between lenders and consumers and preventing tensions from reaching concerning levels in cases where borrowers perceive lenders as untrustworthy and dishonest.

Increasing levels of awareness of government, politics, history and current events through education enhance an informed citizenry, as does having the electorate learn about political processes. Regarding HIV/AIDS education, many theorists advocate education and awareness programmes and campaigns as significant interventions for dealing with the HIV/AIDS pandemic. However, some studies have shown that behaviour and intervention programmes that include information and education can bring about changes in high-risk sexual behaviour.

CHAPTER 3

Borrower protection standards, conceptual framework and hypotheses

3.1 Introduction

This chapter highlights the existence of supervision and protection measures that can be accessed by homeowners in the event that mortgage credit contract obligations are not honoured by a financial institution. The section draws attention to appropriate measures available to homeowners in the cases of structural defects or inferior workmanship affecting a house. Furthermore, the section stresses measures available to homeowners should they have complaints about the improper conduct of financial institutions and estate agencies.

This chapter also provides the basis for the theoretical framework I have formulated. In addition, the chapter frames the hypothesis statements as informed largely by chapter two in which theoretical arguments, abstracts and concepts were examined. In order to theorise and illustrate the correlation between borrower education and the behaviour of low income homeowners, a specific model had to be constructed.

3.2 The significance of borrower protection measures

The focus of this section is on exploring the fundamental nature of borrower education protection instruments. The interests of mortgage account holders and prospective borrowers have to be protected. This chapter focuses on various local models that are important to borrowers. The legislative frameworks that have been implemented in order to protect borrowers from unprincipled lenders and to ensure the rights and interests of borrowers and homeowners are defended.

Enunciating on the effect and borrower education, conduct of lenders and protection standards, Orszag and Manning (2007) emphasise that while there are efforts to transparency and disclosures have increased

consumer awareness about credit trends and enhanced competition, further efforts are needed to make these disclosures more concise, readable and understandable reckon, Orszag and Manning (2007) (Orszag and Manning, 2007). Legislative amendments that seek to increase transparency - which will benefit consumers - are necessary, added Orszag and Manning (2007) (Orszag & Manning, 2007). Accordingly, this section reviews and examines the structure, effectiveness and efficiency of borrower protection standards in protecting homeowner interests against unfair treatment from financial markets - lenders in particular.

3.3 South Africa's regulatory frameworks for consumer protection

There are a number of statutory bodies, policy frameworks and instruments and measures that serve to regulate, promote and protect consumer rights and interests in relation to credit contracts and agreements, covering both secured and unsecured forms of credit. This study focuses only on borrower protection measures that relate primarily to mortgage account holders.

3.3.1 The National Credit Act (NCA) and its salient features

The National Credit Act (NCA) came into effect on 1 June 2007. It was intended to repeal the Usury and Credit Agreement Acts and subordinate legislation. The current legislation was seen to be outdated and not keeping pace with developments in the consumer credit industry. The aim of the NCA is, *inter alia*, to introduce a single functional system of regulation that is applicable to all credit activities, thereby ensuring that all credit providers and credit consumers are treated equally.

Before the passing of the NCA, low income earners struggled to access credit and, in cases where they did obtain it, they paid very high interest rates because of their high risk factor. The Usury Act also allowed money lenders to charge higher interest rates. This contrasted with the dynamics

of lending to high income earners, who were charged more reasonable rates of interest and were able to access credit more easily.

The NCA aims to create a framework where:

- competition and transparency will be promoted because all credit transactions will be treated the same within the identified market sectors,
- all consumers will have equal rights and these rights will be protected,
- measures are introduced to manage over-indebtedness of consumers and to avoid reckless lending practices,
- a regulatory framework is established to regulate credit bureaus, credit providers and debt counsellors,
- the complaints mechanisms are formalised and regulated to ensure maximum protection and compensation for consumers.

The NCA requires consumers to understand the risks and rights associated with credit, as well as obligations under the credit agreement. Unlike the ambiguous prescriptions under the Usury Act, in the NCA there is a clear statutory duty upon the credit provider in this regard. Non-compliance may result in all the consumer's rights and obligations under the credit agreement being set aside, or may cause the credit agreement to be suspended.

3.3.2 The Home Loan and Mortgage Disclosure Act (HLMDA)

The Home Loan and Mortgage Disclosure Act, 2000 (Act 63 of 2000) provides for the establishment of the Office of Disclosure and the monitoring of financial institutions serving the housing credit needs of communities. It requires financial institutions to disclose information and to identify discriminatory lending patterns. The Act is aimed at promoting equity and fairness in lending and disclosure by financial institutions.

The Act aims to eradicate discrimination and unfair practice by encouraging banks and financial institutions to grant home loans to all their clients responsibly. It compels banks and financial institutions to disclose annual financial statements so that their lending practices in respect of home loans can be monitored. Through this Act, the National Department of Human Settlements seeks to follow the Financial Services Charter (FSC) and to monitor the extent to which the targets set for the allocation of credit to low income communities are met. The importance of the HLMDA lies in ensuring that unfair practices by banks against borrowers and homeowners are eradicated, and that lending patterns are clearly defined.

3.3.3 The National Consumer Tribunal (NCT)

The National Consumer Tribunal is an adjudicative body established by section 26 of the National Credit Act (Act 34 of 2005). It has jurisdiction throughout South Africa.

The role of the Tribunal is to adjudicate on:

- Applications made in terms of the Act by consumers, credit providers, credit bureaus, debt counsellors and the Credit Regulator;
- Matters referred by the National Credit Regulator or Complainants related to allegations of prohibited conduct.

The Act makes limited provision for applications to be made directly to the Tribunal by consumers, credit providers, credit bureaus and debt counsellors. Direct applications can only be made if the parties have failed to resolve the matter directly between them and alternative dispute resolution has failed. The Tribunal has, in terms of the Act, the power to make a wide range of orders. Some of the specific orders are:

- Declaring conduct to be prohibited;
- Interdicting prohibited conduct;
- Imposing administrative fines;

- Confirming consent orders;
- Cancelling or suspending the registration of any entity registered with the National Credit Regulator; and
- Confirming, modifying or setting aside the decisions of the National Credit Regulator on appeal by the affected parties.

The significance of the National Consumer Tribunal for this study lies in its stated function of mediating disputes between borrowers and lenders. An aggrieved party applies to the Tribunal if the parties failed to reach an amicable consensus. This emphasises the important nature of the relationship that exists between borrowers and the lenders.

3.3.4 The Consumer Protection Act (CPA)

The CPA covers a whole range of consumer protection devices. However, for the benefit of this study, we will focus only on some relevant roles and functions. The aim of the new Act is to promote a fairer, more accessible and more sustainable marketplace in which less informed and less educated clients are better protected.

The new Consumer Protection Act (which came into effect on 31 March 2011) compels agents to ensure that borrowers fully understand the implications of any credit contracts they enter into; this extends to the wording and legal effect of these contracts. Furthermore, the Act makes estate agents responsible for ensuring that potential buyers are fully informed about the condition of properties - a “voetstoots” clause in an Offer to Purchase will no longer protect estate agents from the perils of non-disclosure (Property24 Report, 2010).

According to Keat et al. (1994) the provision of information is of direct benefit to consumers, in-itself empowering them to make better choices (Keat et al., 1994). For borrowers and homeowners in particular, it is crucial to understand the safeguards offered by the Consumer Protection Act in terms of fair treatment of credit contracts and dealings with estate agents.

It is stated in the Act that borrowers who have not fully understood the terms of a loan, or who have not been offered adequate disclosure of loan terms often struggle to meet overwhelming mortgage payments and, too often, ultimately lose their homes (Keat et al., 1994). Saunders and Cohen (2004) confirm that borrower protection measures may prevent consumers from being nickel-and-dimed to death by miscellaneous fees, which, realistically, they are powerless to dispute (Saunders and Cohen, 2004).

Saunders and Cohen's assertions are corroborated by Jones (2009), who observes that a range of redress schemes to protect borrowers are now being applied, from the ombudsman approach through to arbitration, which is much more formal and requires the submission of papers by the affected parties (Jones, 2009).

3.3.5 Weaknesses in Borrower Protection Standards

Poor borrower protection standards were uncovered in the 2011 findings of the Financial Crisis Inquiry Commission (FCIC) report on the causes of the 2008 financial meltdown. The key findings reveal that widespread failures in financial regulation and supervision proved devastating to the stability of the nation's financial markets. Further, the report indicates that more than 30 years of deregulation and reliance on self-regulation by financial institutions had stripped away key safeguards, which could have helped avoid catastrophe (Financial Crisis Inquiry Report, 2011).

The report states that a combination of excessive borrowing, risky investments and lack of transparency put the financial system on a collision course with crisis (Ibid). The study demonstrates that in the years leading up to the crisis, too many financial institutions and households borrowed to the hilt, leaving them vulnerable to financial distress or ruin if the values of their investments declined even modestly (Financial Crisis Inquiry Report, 2011).

From the analysis of these findings, it seems clear that borrowers were misinformed, deceived and left unprotected. Lenders had their mortgage appraisals inflated, which meant greater losses when borrowers defaulted

as the real value of houses had been substantially inflated due to a refinancing boom of bubble assets. The underwriting standards were remarkably compromised in favour of palatable profits; applying rational appraisal methods would have meant not only losing clients but also losing out on anticipated inflated returns. The safeguarding of healthy homeownership is discussed in Kyung-Hwan (1997), Kyung-Hwan (1997) states that in order to promote homeownership, and to improve housing conditions, it is important to rationalise the market factors as well as regulations governing their functioning (Kyung-Hwan, 1997).

3.3.6 Concluding remarks

The section above has discussed some weaknesses in borrower protection standards. It has highlighted regulatory protections that appear to have failed to protect borrowers. Analysis indicates that safeguarding frameworks in the case of the 2008 meltdown had been heavily compromised - the fact that lenders were not punished for unfair lending practices attests to such limitations. Regrettably, unfairly treated homeowners have still not been able to seek redress as some are not even aware of their rights and responsibilities due to a lack of borrower education and have been devastated by foreclosures.

Regulators should be provided with all the necessary tools to implement regulations effectively and to ensure that lenders fulfil their roles, responsibilities and obligations. Taking suitable enforcement action against lenders who have misinformed borrowers by focusing exclusively on pursuing greater profit margins could go a long way as an appropriate market corrective measure and mitigate instrument.

In view of all the surveyed and examined theoretical frameworks and models presented, the formulation of this model is informed by a diverse range of theories and applied models. The following section sets out the framing and construction components of the model and then draws up some hypothetical statements. It is firstly worthy to note that this investigation is set to deliver on the following objectives:

- To ascertain whether banks are offering borrower education to low income homeowners;
- To examine whether there is a relationship between a lack of borrower education and propensity to default;
- To find out whether the type of relationship and rapport between the borrower and the financier has an impact on the probability to default. To determine whether there is a relationship between variables such as age, income, interest rates and propensity to default; and
- To ascertain whether there is a relationship between formal academic education level and non-payment behaviour.

3.4 Conceptual framework and hypotheses

The objective of this section is to outline the construction of my model and to formulate related hypothetical statements. My model is premised upon the observation that a primary cause of default is a lack of borrower education that results in information asymmetry and behavioural characteristics and impacts negatively on the relationships between lenders and borrowers, with borrowers bearing the brunt of this impact.

3.4. 1 Conceptual framework assumptions

From the literature examined and reviewed so far, we can carefully make the following assumptions:

- informed borrowers are more responsible and make informed choices;
- empowered homeowners are likely to appreciate the value of their assets and unlikely to default;
- such owners understand the cost of ownership and are likely to look after their assets;

- lenders who empower borrowers are more likely to benefit from their investment; and
- such lenders have good relationships with borrowers.

Model application

Regression model appeared to be the suitable and preferred technique in this regard. Thus the researcher will apply a regression model which has only one slope, but with multiple intercepts or coefficients. These intercepts or coefficients control the value of y .

A coefficient is a constant by which a variable is multiplied. By means of the model I will hypothesise specific causal relationships between variables and then test them to establish how well they correspond to the data. I have illustrated this causal modelling with an arrangement of variables in the diagram below.

According to Bohrnstedt et al. (1988) the most basic question to be asked when inferring from data is: *what is the probability that the relationship observed in the sample data could be obtained from the population?* (Bohrnstedt et al., 1988). Meyers, et al. (2006) further explain Bohrnstedt et al.,(1988) theory that causal inferences are used to compute the various coefficients representing each variable-to-variable relationship (Meyers, et al., 2006) .

Path analysis, performed when all the variables are measured variables, can be accomplished through multiple regression analyses (Meyers, et al., 2006). Meyers, et al. (2006) clarify that logistic regression equations do not directly predict the probability of an event occurring but rather predict the logarithmic odds that an observation will have an outcome (Meyers et al. 2006).

Accordingly, I apply a five dimensional core analytical framework, as sketched out in the model below, *where* β_a is the intercept of A , β_b is the intercept of B , β_c is the intercept of C , β_d is the intercept of D , β_e is the intercept of E , and ε is the error term.

This can be illustrated as follows:

$$Y = \beta_0 + \beta_1 A + \beta_2 B + \beta_3 C + \beta_4 D + \beta_5 E + \varepsilon$$

What is suggested by this model is that the coefficients are due to multiple independent variables (A,B,C,D and E). Y (the dependent variable) would then be called Y- intercept.

The model assumes that informed borrowers are more responsible, take informed decisions and have the ability to meet debt obligations. In other words, it is based upon the hypothesis that informed borrowers appear to prioritise their needs more carefully and tend to meet their obligations, which in turn makes them more responsible borrowers. I further hypothesise that a lender willing and able to educate its borrowers stands to benefit financially and socially.

The model shows that such lenders enjoy good relationships with their borrowers and are able to detect when their borrowers are in financial distress through a good rapport that has been developed and continuously monitored. Such lenders are likely to yield returns on their investment.

The first component describes an informed borrower who is responsible for making informed choices and able to repay debt obligations. This component, which has a behavioural focus, involves determining the role that borrower education plays in creating a more responsible borrower. The second component relates specifically to the lender.

Early signs of potential credit risk are easily detected. Badler (2004) affirms that consumer roles have changed drastically over the past two decades (Badler, 2004). He illustrates this by showing that customer call centres have replaced conventional switchboard operators (Ibid). While this is largely informed by behavioural and attitudinal attributes, it is worth noting that the model also illustrates the ability of a lender to impart necessary information so that borrowers are made well aware of their obligations. This will make it easier for borrowers faced with economic hardships or downswings to approach lenders; in turn, lenders will willingly

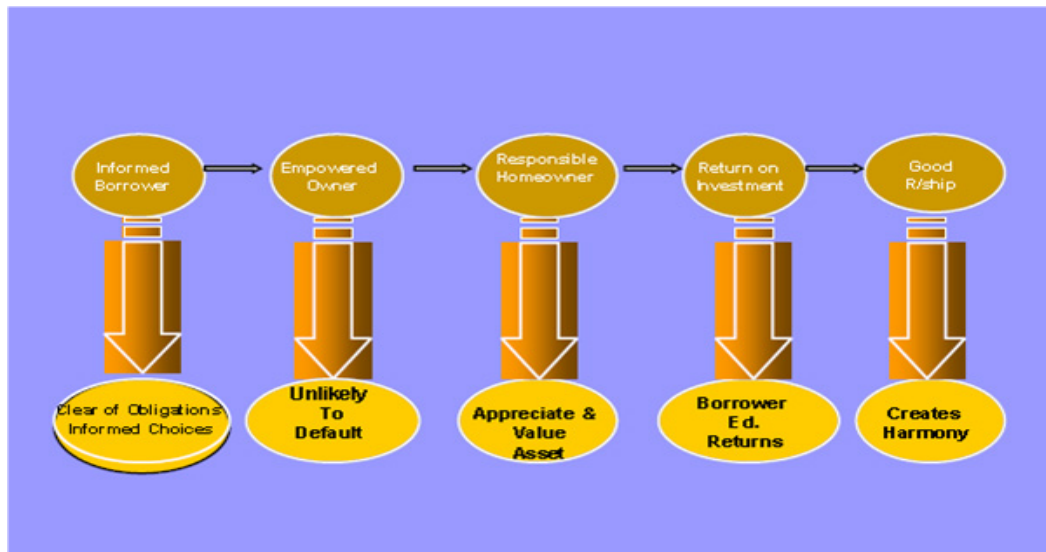
acknowledge such problems and offer counselling or any form of pertinent antidote to remedy the problem.

All of the above variables will be measured in the next chapter through a network of responses to emerge from the respondents, both borrowers and lenders. Their views were collected through questionnaire instruments.

Meaning

1. Informed borrowers are more responsible, make informed choices and are clear of rights and obligations. This is represented by A.
2. Empowered homeowners with borrower education are less likely to default on their payments, with the exception of young adults aged 18-35 years, who are prone to defaults. This is represented by B.
3. Such responsible homeowners understand the cost of ownership and appreciate the values of their properties as capital appreciation assets, making them unlikely to default. This is represented by C.
4. Lenders offering effective borrower education programmes are more likely to receive benefits from their investments as owners are informed of financial indices, interest, inflation, etc. This is represented by D.
5. Such lenders have good relationship with borrowers. This is represented by E.
6. The actual result is represented by Y.

Figure 7: Theoretical model illustrating borrower education impact



Source: Author

Variables (a, b, c, d and e) are positively related to Y because positive effects on all those variables give rise to a positive response to the total amount borrowed.

Therefore, to conclude, the formula would be:

$Y = \beta_a A + \beta_b B + \beta_c C + \beta_d D + \beta_e E + \varepsilon$, where β_a is the intercept of A, β_b is the intercept of B, β_c is the intercept of C, β_d is the intercept of D, β_e is the intercept of E and ε is the error term.

The model proposed above asserts the importance of a well-devised borrower education programme and its expected impact on homeowners and lenders. The empirical statement that the relationship between behaviour and ability to pay are intertwined indicates that lenders who take the initiative to empower borrowers and recognise their value are likely to benefit from the resultant responsible behaviour and low levels of default. Lenders who do not see value in empowering borrowers, or whose offerings are not structurally aligned with and beneficial to them, are likely to experience a greater incidence of non-payment behaviour.

This emphasises the benefits of sound borrower education programmes. In order to ensure that such programmes contain appropriate content, it is necessary to adequately understand the type of borrowers they are targeting. Certainly, borrower frameworks should be tailor-made to link to the various home loan chain processes.

In summary, I assert via the proposed model that the relationship between behaviour and ability to pay appears to be influenced by access to knowledge, the amount and quality of available information, and clarity on the expected roles and responsibilities of borrowers.

It would seem that lenders who take the initiative to empower their borrowers and who recognise their value are likely to benefit by factoring in this set of observations. This is corroborated by Quercia and Spader's (2008) model, which suggests that the completion of classroom instruction or individual counselling improves borrower decisions regarding prepayment, with the provision that this effect does not extend to home-based study or telephone counselling (Quercia and Spader's, 2008).

This view is maintained by Carswell (2009), who shows that homeownership counselling has become more commonplace in American society (Carswell, 2009). Carswell (2009) also states that increasing attention has been given to mitigating many of the prevalent risks borrowers face when taking on mortgage obligations (Carswell, 2009). Some financial institutions recommend or require counselling because of its perceived benefits in mitigating the risks inherent in first-time home buyer situations (ibid).

This suggests that even if lenders do not see the value in empowering homeowners through borrower education, they might still be negatively impacted by unintended results that include non-payment, the breeding of distrust and negative perceptions, and the neglect of properties.

3.4.2 Hypotheses

My hypothesis, informed by a number of theoretical frameworks as well as the above-described model, is that there is a relationship between a lack of borrower education and non-payment behaviour among low income homeowners.

My assumption is that borrower education in the low income housing market is largely non-existent, which impacts negatively on repayment ratios and behavioural patterns. This leads to the following hypothetical contributions to non-payment behaviour, as further suggested by the relevant literature. These hypothetical contributions will be tested in the next two chapters (Chapters 4 and 5), both of which deal with research methods and data analysis.

3.4.3 Formulated hypothetical statements

Hypothesis 1: Borrowers who have received borrower education are less likely to default on their mortgage payments.

Hypothesis 2: The probability of homeowner defaults increases when interest rates increase adding increases to mortgage repayments.

Hypothesis 3: Households with high levels of formal education are unlikely to exhibit non-payment behaviour on their mortgage loans.

Hypothesis 4: The probability of non-payment behaviours by households with mortgage loans is lower for those in higher income brackets.

Hypothesis 5: Poor relationships (rapport) between banks (lenders) and borrowers (homeowners) increases the probability of default.

Hypothesis 6: Young adults (homeowners aged 18-35) are more susceptible to non-payment behaviour on their mortgage loans than middle aged (homeowners of 35-50) when under financial pressure due to financial over-commitment and indebtedness.

3.4.4 Concluding remarks

This chapter was divided into two sections, namely borrower protection measures and formulation of theoretical model and hypotheses. The first section discussed borrower protection standards intended to protect homeowners - in particular low income households - against unfair conduct by lenders. The chapter also sought to demonstrate that borrowers should be sufficiently empowered to understand their rights and responsibilities in dealing with the unjust behaviour of financial markets.

The second section focused on the construction of a model informed by an analysis of relevant literature. The subsequently formulated theoretical statements operate on the assumption that empowered borrowers tend to be more responsible and make wise financial choices. Furthermore, the model suggests that owners with borrower education are less susceptible to the risk of default and better understand the costs of ownership.

Lastly, the theoretical framework highlighted assumptions that lenders with empowered borrowers in their debtors account books are more likely to benefit from their investments, as well as enjoying good rapport with borrowers. In the next chapter I shall discuss and justify my research methods.

CHAPTER 4

Research methods

4.1 Introduction

This chapter focuses on answering methodological questions. The chapter elucidates the research methods employed in my investigation by disclosing why I selected the area, justifying the units of population, providing rationale on why I selected the sampled population; giving reasons to the size of the sampled group and explaining how I arrived at an appropriate sampling technique. The chapter also draws attention to my fieldwork processes and related techniques and approaches. Lastly, the chapter delineates my data capturing procedures, my model and then draws attentions to the field work problems; data collections difficulties; ethics certificate requirements in the form of limitations to the study.

My research required the use of appropriate research instruments in order to ensure an accurate and reliable response to my initial problem statement that a lack of borrower education is associated with non-payment behaviour in the low income housing market of South Africa. This is viewed by the researcher as serious risk factor potential to damage the relationship between the creditor and debtor as susceptibility to default is due to absence of borrower education programmes and informative content thereof.

The researcher sought to address that under the following objectives:

- To ascertain whether banks are offering borrower education to low income homeowners;*
- To examine whether there is a relationship between a lack of borrower education and propensity to default;*
- To find out whether the type of relationship and rapport between the borrower and the financier has an impact on the probability to default;*

-To determine whether there is a relationship between variables such as age, income, interest rates and propensity to default; and

-To ascertain whether there is a relationship between formal academic education level and non-payment behaviour.

According to Mayer and Greenwood (1980) the objective of an investigation, once defined, determines the selection of the optimal research method (Mayer and Greenwood, 1980).

In turn, they argue, the method allows for the selection of the best research techniques (Mayer & Greenwood, 1980). This is confirmed by Garbers (1996), who states that the achievement of research objectives involves the development of various techniques. "To a greater or lesser extent, all quantitative approaches employ mathematical models and computer software packages" (Garbers, 1996: 145).

Given that I am proposing an underlying relationship between a set of concepts (defined as variables), developing appropriate research techniques that link the collected data to research questions is of fundamental importance. Yin (2002) shows that every empirical study has an implicit, if not explicit, research technique (Yin, 2002). "Case study design needs to maximize four conditions related to design quality: (a) construct validity, (b) internal validity (for explanatory or causal case studies), (c) external validity, and (d) reliability" (Yin, 2002: 19).

In any empirical scientific study, Yin (2002) argues research design and methodology is completely dependent upon either the nature of the question(s) being investigated or the initial problem statement (Yin, 2002). The current study relies heavily on quantitative research methods supplemented by qualitative research methods. De Vos (2002) described quantitative research methods as a data collection process often employs measuring instruments (De Vos, 2003). In my investigation, the application of quantitative research is informed by respondents feedback elicited through questionnaires.

Qualitative research, according to Bailey (1982), refers to measured attributes that are not numerical but instead have labels or names assigned to their respective categories (Bailey, 1982). Through the application of this method within my study I aimed to uncover and analyse the prevailing philosophy that is theoretically demonstrated as well as obtaining end-user perspectives on subject matter issues through a focus group process.

Gibbs (1997) describes the focus group as a research process that involves organised discussion with a selected group of individuals in order to gain information about their views and experiences of a particular topic (Gibbs, 1997). A focus group interviewing process is particularly well-suited to obtaining multiple perspectives on the same topic (Gibbs, 1997). For this reason the study sought to explore a variety of perceptions, opinions, inner feelings, insights and community dynamics.

This is corroborated by (Krueger & Casey 2000 and Barbour & Kitzinger 1999 in De Vos (2002) when they argue that the researcher creates a tolerant environment within the focus group in order to encourage participants to share perceptions, points of view, experiences, wishes and concerns, without pressuring them to vote or to reach consensus (De Vos, 2002).

Thus the study, owing to expressly posed and outlined research questions and objectives, appropriately responded through two approaches that adequately uncovered what the study aimed to achieve relative to the problem statement. These four approaches are (i) explanatory (ii) exploratory (iii) descriptive and (iv) evaluative techniques.

4.2 Explanatory research

The explanatory research approach is a technique that precedes the descriptive research approach. Behr (1983) defined descriptive research as a technique that is concerned with conditions that exist, practices that prevail, beliefs and attitudes that are held, processes that are on-going and trends that are developing. According to Dometrius's (1992), this

description of the problem is useful, but researchers now want to move beyond description to explanation or explanatory research. Questions of explanation ask why things happen or exist as they do (Dometrius,1992).

Tellis (1997) states that the explanatory approach is used in case studies that analyse causal phenomena in investigations (Tellis, 1997). “Explanatory research seeks to identify the cause(s) and effect(s) of social phenomena” (Stern 2005:24). The application of this approach in my investigation is directly linked to establishing the following hypotheses:

- Homeowners’ probability to default is due to a lack of borrower education aimed at empowering low income homeowners.
- Non-payment behaviour is motivated by the lack of borrower information, especially with regards to home loans.
- The prospect of defaulting is more likely when financial indices, such as inflation and interest rates, cause increases in mortgage repayments.
- Households with low incomes and low education levels are susceptible to non-payment behaviour.

In this study I endeavoured to move beyond the mere description of payment defaulting characteristics by analysing and explaining why or how this is occurring. Thus, explanatory research aims to understand the causal effect of phenomena by measuring the relationship among connecting variables (Schutt, 2006). The explanatory research technique is a more accurate research method in that it enables us to predict the specific value or score of a case on one variable from a value or score of another (Walsh, 1990).

The importance of the explanatory method is centred on the issue of understanding borrower needs. The explanatory approach seeks to elaborate on interventions necessary to remedy the stated problem. It is therefore a type of methodology that aims to measure the implications of behaviour as a result of the absence of a significant educational intervention.

4.3 Exploratory research

An online Marketing Research Report (2009) defines exploratory research as a tool that can effectively be used to develop insights and understanding about a particular problem or issue. It is a very useful technique for understanding a problem, screening alternative solutions and discovering new ideas (ibid). In exploratory research the focus is on gaining insights and familiarity with the subject area for more rigorous investigation later by identifying the underlying motivations for individual behaviour. Using this method has revealed that:

- lenders have not developed any relationship with borrowers, making it difficult for the borrower to trust the lender and thus leading to tense interactions;
- borrowers' negative views of lenders have not changed and are still based on historical perceptions;
- there is an increasing need to educate borrowers, and especially homeowners, in order to improve their understanding of financial products such as a mortgage loans and the financial risks these entail to prevent defaults and foreclosures;
- the role played by the state in the housing market in terms of enabling beneficiaries to become responsible homeowners with a clear concept of their obligations, is questioned.

4.4 Descriptive research

Descriptive research is defined by Behr (1983) as a technique that is concerned with conditions that exist, practices that prevail, beliefs and attitudes that are held, processes that are on-going and trends that are developing (Behr,1983). Stern (2005) further defines descriptive research "as attempts to define and describe the social phenomena under investigation" (Stern, 2005: 23). This approach was used in the questionnaires, as well as during the interviews conducted on banks'

borrower educational programmes and the measuring of protective, monitoring standards and regulations.

The analysed feedback was from the following institutions: Absa, First National Bank, Financial Services Board, Home Loan and Mortgage Disclosure Act Office, Integer, Nedbank, SA Home Loans and Standard Bank. The descriptive research in this study is informed by two of the hypotheses that the study seeks to measure, namely:

- that there is an increasing need to educate borrowers on financial literacy to improve their understanding of financial products like mortgage loans and the financial risks thereof in order to prevent defaults and foreclosures;
- that the role played by the state in through protection standards and regulatory measures aimed at enabling borrowers to be properly informed appear to be inadequate.

4.5 Evaluation research

According to Stern (2005), "Evaluation research seeks to determine the effects of an intervention on individual behaviour" (Stern 2005: 24). The validity and significance of this research approach in this study is to consider how a homeowner's behavioural patterns may be positively altered if the homeowner was adequately informed and empowered to make informed choices.

The hypothesized default behaviours by borrowers that are theoretically as a result of lack of borrower education are not resistant to correction should appropriate measures in the form empowerment programmes be adequately rolled out effectively and efficiently. The application and purpose of an evaluation research method is to measure the following stated hypotheses:

- borrowers that have received sufficient information and financial literacy from lenders beforehand are less likely to default on payments;
- financial literacy and borrower education is essential as it can impact positively on borrowers' attitudes, mind-sets, behaviour and willingness to pay.

These areas of research depicted graphically in Figure 9 below are not necessary mutually exclusive and are designed to be used as interconnected variables for a broader understanding of the question under investigation.

4.6 Bivariate technique

The study aims to investigate the correlation between the lack of borrower education and non-payment behaviour of low income homeowners. In establishing the existence of such a relationship, it is necessary to use the most appropriate research procedure. This means that in addition to the above research methodological approaches, namely explanatory and exploratory, measurement of reliability and validity in determining whether the relationship exists between the variables, the outcomes will also be tested by using the bivariate research design method.

The University of Cape Town's (UCT) School of Economics published a Research Methods Report on-line (2010) which explains that the bivariate technique is a tool used when examining two variables at the same time, hence the term bivariate. It is used frequently by social scientists and mathematicians to compare how two variables correspond with one another (ibid). On correlation, Antonius (2003) states that correlation denotes the relationship (association or dependence) between two or more quantitative variables. It is sometimes, according to Antonius (2003), "loosely used to denote statistical association, even when the variables are qualitative" (Antonius 2003: 287).

Extending Antonius's observations, Howell (2008) explains that when we are dealing with the relationship between two variables, "we are concerned

with correlation and the measure of the degree or strength of this relationship which is represented by the correlation coefficient” (Howell, 2008: 56). In her illustration of correlation analysis, Willemse states that “correlation analysis is used to describe the degree of strength by which one variable is related to another” (Willemse, 1999: 188).

The supposition is that borrower education is positively correlated with good and responsible financial behaviour as home loans taken out by borrowers who have received borrower education are less likely to default on payments. This is an opinion that O’Connell dispels when he states that “it is not always the case that financial education is associated with the right financial behaviour” (O’Connell, 2007: 14).

Advancing his analysis O’Connell states that “no study has successfully proven that education causes improved financial literacy or better financial behaviour” (O’Connell 2007:14). In contrast, Hilgert et al. (2003) found existence in correlations between having financial knowledge and financial practices or behaviour. But O’Connell (2007) pointed out that the causality could flow either way, or in both directions (O’Connell, 2007).

Thus the purpose was to try to understand the functional relationships between the dependent and independent variables, to determine what might explain the variation in the dependent variable. Dometrius (1992) states that “a variable is a particular characteristic of people or things whose categories are both exhaustive and mutually exclusive” (Dometrius 1992: 13). Meyers (2006) emphasizes that in bivariate analysis data can be analysed using Pearson product-moment correlation statistical procedures (Meyers, 2006). The evaluation method was of importance in this instance as this study seeks to investigate how the lack of borrower education (independent variable) correlates to the non-payment of bonds (dependent variable) in the low income housing market.

4.7 Defining the independent variable

Before we can define and explain what an independent variable is and what it entails in this study, it is important that I provide a conceptual explanation of the concept, variable. Bohrnstedt and Knoke (1988) define a variable as a characteristic of persons, objects, or events that differs in value across persons, objects or events (Bohrnstedt and Knoke, 1988). Anxiety, for example, is a variable: people differ in terms of degree of anxiousness. According to Bohrnstedt and Knoke, (1988) “income is also variable: people beg, borrow, steal or earn the money they need” (Bohrnstedt & Knoke 1988: 8).

Accordingly, “an independent variable is a factor which can be measured, manipulated or selected by the experimenter to determine its relationship with an observed phenomenon” reasons Stern (2005), (Stern 2005: 43). In a study where groups are being compared, the independent variable is the group classification (ibid). Antonius (2003) states that in statistical analysis the variable which tries to explain the function of other variables is called independent variables. One of the objectives of statistical analysis, as Antonius (2003) further explains, is to predict the values of the dependent variables in terms of the values of the independent variables (Antonius, 2003).

According to Howell (2008) independent variables are those variables controlled by the experimenter while dependent variables are the variables being measured. Usually, the investigator seeks to ascertain the causal effect of one variable upon another, the effect of a price increase upon demand, for example, or the effect of changes in the money supply upon the inflation rate (Howell, 2008).

4.8 Defining the dependent variable

According to Neale and Liebert (1986), a dependent variable is that aspect of a subject's behaviour that is measured after the manipulation of the independent variable (Neale & Liebert, 1986). A dependent variable as defined by Stern (2005) is that "factor which is observed and measured to determine the effect of the independent variable, i.e., that factor that appears, disappears, or varies as the experimenter introduces, removes, or varies the independent variable" (Stern, 2005: 43). In a research study, the independent variable defines the principal focus of research interest. It is the consequent variable that is presumably affected by one or more independent variables that are either manipulated by the researcher or observed by the researcher and regarded as antecedent conditions that determine the value of the dependent variable (Stern, 2005).

As stated, this investigation was about a variable relationship; namely that of borrower education and how it may affect payment behaviour. Thus, borrower education is defined in part as a credit empowering process that entails the tailoring of information and advice to an individual borrower's specific circumstances (FSC Report, 2006). Consumer and borrower education in the housing context are often confused. The confusion emerges from the marginal difference between the concepts. The two components are linked to one another and also overlap in some instances.

Consumer education is the first step in borrower education (FSC Report 2006). In other words, a potential borrower often gathers information, be it in the form of brochures or other media (print or electronic), about the process of acquiring a house (ibid). At this stage s/he is a consumer, as s/he has familiarised her-/himself with basic consumer information and when ready to purchase a house will become a borrower.

Consumer education is defined as all educational initiatives that broader stakeholders take to enable people to become more capable and able to be responsible (ibid). Consumer education is concerned with the skills,

attitudes and knowledge required to live in a consumer society (FSC Report 2006). Housing consumer education, which this study is concerned with, deals with the many basic issues of accessing a house and the important life skills associated with responsible homeownership (ibid).

Borrower education, on the other hand, is defined as all educational initiatives that adequately inform a borrower to enable him or her to make well-reasoned decisions with regard to, amongst other things, tenure choices. "Borrower education is clearly seen as differing slightly from consumer education" (FSC Report, 2006: 2-3). "There is an overlap between housing consumer education and borrower education and neither should be studied excluding the other" (FSC Report 2006: 3). Due to the lack of specific information in the existing literature, this study will endeavour to construct the needed instruments in the form of a questionnaire aimed at collecting primary data.

In collecting the primary data, there were two sets of questionnaires: the end-user survey questionnaire for homeowners (see Annexure 1) and the financier/banks questionnaire (see Annexure 2) for the lenders. The end-user questionnaire was divided into four categories. This classification was necessary to ensure that relevant data was gathered and that all relevant variables were tested.

These categories included the following:

- (i) filter questionnaire;
- (ii) information scale;
- (iii) demographic scale; and
- (iv) economic and financial variables.

Responses were categorised and analysed to ensure relevancy. The study will rely on some secondary data when looking at other related but unspecified issues.

The study was, furthermore, based on the use of secondary research analysis techniques for synthesising the data. Bailey (1987) illustrates that secondary analysis is the analysis of documents, data gathered and

observations by various authors and theorists. Hyman (1972) believes that “the benefit of using secondary analysis is because (i) it saves time and money; (ii) it is less invasive of privacy; and (iii) it provides no difficulty in supplying comparative analysis (Hyman, 1972). However, “the shortcomings of employing the secondary analysis method is that some of the data and information that the researcher requires may not be available and also that the data and information may contain errors that the secondary researcher is not able to detect” (Bailey, 1987: 296).

The analysis of existing data and information is necessary as it provides insights into some developmental issues that are difficult to detect when employing other research techniques as it concerns itself with a critical review of existing literature. Secondary research techniques entail the systematic and objective location, evaluation, and synthesis of evidence in order to establish facts and draw conclusions about past events (Cohen & Manion 1989).

This method focuses only on secondary methods of collecting information. In other words, this methodology entails that literature and documentation assessment is undertaken. The aim was to contextualise the problem at hand by considering macro and micro issues as well as economic conditions, including an overview of the main issues impacting on the developmental aspects of the problem statement. Apart from analysing existing literature this approach proved essential for analysing focus group assertions.

4.9 Questionnaire formulation process: end user

Embarking on the process of end-user formulation entailed significant steps that had to be followed. The categories that were covered included the researcher’s introductory letter, filtration of the questionnaire, demographic variables, information scale, economic and financial variables as well as a pledge and words of gratitude extended to the respondents.

4.9.1 Formulated questions

The end-user questionnaire was divided into six different parts. These included:

- Researcher's introductory letter: By drafting an introductory letter, I was able to gain the trust and confidence of the subjects. In addition, it was aimed at reassuring respondents about confidentiality. It guaranteed them that all answers obtained in the form would be classified and treated in the strictest confidence.

Antonius affirms that researchers must take appropriate means to ensure that information about individuals collected in the course of a research project will remain confidential, and that a reader is not able to trace back any piece of information to a particular individual (Antonius 2003).

- Filter question: I ensured that only qualifying units of the population were interviewed. Answers were only elicited from respondents who had existing bonds.
- Demographic section: This category ensured that we have the demographic characteristics captured appropriately. The measured scales included gender, age group, marital status, level of education etc.
- Information scale: This particular section was the first one essentially dealing with the subject of inquiry. I established and documented a range of responses to questions focusing on, amongst other things, the relationship between the borrower and the lender, the borrower's information asymmetry, etc.
- Economic and financial variables: This section elicited responses that related to indices questions, vis-à-vis household income, interest rates fluctuations, length of time of respondent at present job, borrower information as spelt out by their financiers before acquiring a bond, etc.

- Gratitude and pledge to subjects: At the end of each interview, I thanked the respondent for his/her time and patience. I also reiterated that all the responses will remain strictly private and confidential.

4.9.2 Questionnaire formulation process: lender (bank)

Questions for the lender were formulated with borrower education, home loan education and repayment behaviour in mind. Furthermore, the questions were refined to establish as precisely as possible the role of lenders in the borrower education process and to adequately elicit information about such important aspects through the application of probing and exact questions.

4.9.3 Designing questionnaire instruments and guide

The design of the questionnaires and the way in which questions were worded was particularly important as this greatly influenced the reliability of the data collected. Developing a structured questionnaire, as mentioned earlier in this section, was carefully considered to ensure that the intended objectives would be obtained.

It has to be noted that constructing a questionnaire whilst measuring each variable required great meticulousness on my part. On numerous occasions the questionnaire had to be revised to ensure accuracy in the measurement of variables. This was quite a daunting challenge. I also ensured that instructions on the questionnaire were as clear, simple and as easily understandable as possible. Interviewees also were properly guided during the testing and retesting processes to provide credence to the exercise.

4.9.4 Establishing the contents of the questionnaire

When I contemplated the questionnaire design, the primary aim was to determine which topics and type of questions the questionnaire would cover and how it would be administered. As mentioned above, the number of topics and variables to be measured was guided by the objectives of the

investigation. I was also mindful of the length of time required and thought it was reasonable to expect subjects to cooperate without having significant difficulties. A pilot session gave me crucial guidance in this regard and was beneficial to the exercise.

I kept in mind that the information collected should be relevant and that most frequent problems in questionnaire is asking too many questions that are not directly pertinent to the investigation. Willemse (1999) asserts that “questions must be designed to obtain the exact information as directly as possible. She maintains that “questions should be short, simple and to the point and that respondents must be able to understand and answer the questions” (Willemse, 1999: 9).

4.9.5 Preparing the questions

After I identified the sections of the questionnaire, the next step was to formulate questions which would elicit the specific information I needed. Once all the questions were compiled, I collated the questions for categorisation. The questionnaires were structured and interviews were conducted systematically since it was fundamental for me to elicit the most accurate responses.

Behr contends that “structured interviews, though time consuming, expensive and often difficult to arrange, are sometimes preferred to written questionnaires, particularly where complex topics are involved or where the investigation concerns matters of a personal nature” (Behr, 1983: 145). Extending Behr’s theory, Neale and Liebert (1986) argue that surveying by way of systematic personal interview may be an effective survey technique for reducing some of the biases. “Personal interviews are likely to provide adequate data, but a large number of checks will be necessary to assure that the plan is carried out properly” (Neale & Liebert, 1986: 53-54).

4.9.6 Segmenting and classifying the questions

The importance of questionnaire segmentation in this study was informed and guided by the measurement of the variables and hypotheses thereof

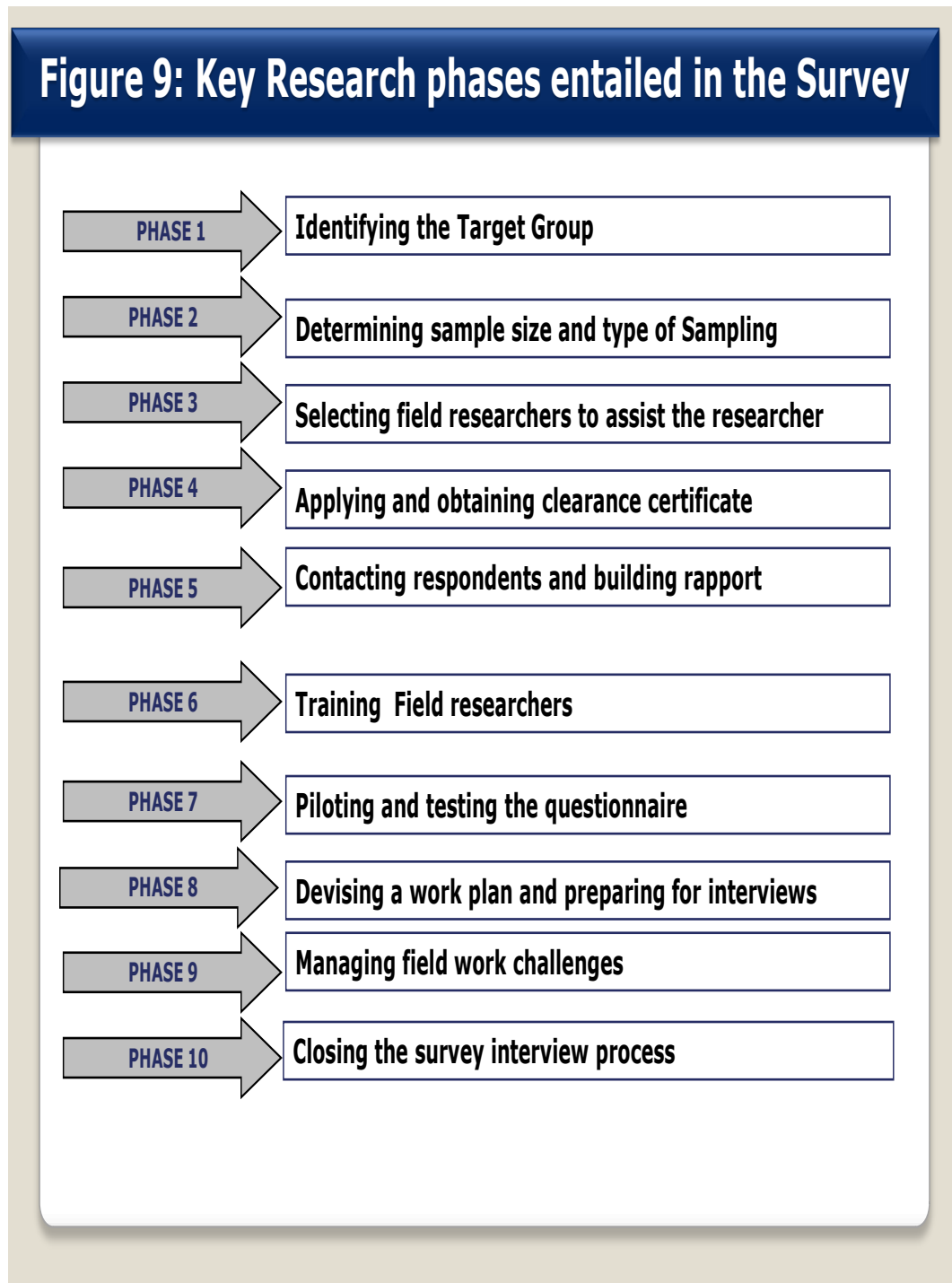
as per the objectives. I was particularly attentive to avoid the trap of having duplicated questions which measure two or more different phenomena. Further, I was wary of leading questions which could have led to biased responses. Thoroughness, conscientiousness and consideration were very much accentuated as some of the questions, especially those on income, level of education, and age, could be thought to be insensitive. Fortunately, these kinds of questions were answered without creating any uneasiness and this helped establish essential trustworthiness.

Validity is described by Black (1993) as the most important aspect of research design since it is concerned with the measurement of abstract concepts and traits (Black, 1993). I therefore aimed at uncovering certain behavioural traits such as attitudes towards financial institutions, borrower education knowledge and awareness of the on-going cost of home ownership. The reliability concept, according to Neale and Liebert, means that an observation that cannot be replicated is unreliable and should not be admitted as scientific evidence. Neale & Liebert (1986) concluded that reliability refers to the degree to which a particular observation has yielded a “true” score (Neale & Liebert 1986: 37-38).

I also paid special attention to avoid words which could be described as vague or which could be construed to have double meanings, which could lead to questions about the reliability of the findings regarding the actual measured variables. Black (1993) concurs by stressing that reliability means that if you measure something today with your instrument, you should get very much the same results at some other time (Black, 1993). Frude’s (1993) corresponding view is that a “reliable measure provides consistent and stable measurements” (Frude 1993: 194). When framing the questions, while ensuring the flow in sequence, I was particularly conscientious to avoid questions which had any ambiguity context.

Figure 9 below schematises the description of phases that underpinned this investigation. Planning involved in the investigation from phase one to the report writing stage were as follows:

Figure 9: Key research phases entailed in the survey



Schematisation by author

4.10 Phase description of the survey research

This section describes the phases and stages in which the research was captured.

4.10.1 Identifying the target group

The social survey was part of a study focused on the relationship between the lack of borrower education and non-payment behaviour with particular reference to low income homeowners in South Africa. The questionnaire survey concentrated on homeownership and lender education relative to bond payment issues. The survey focused on parts of the Protea Glen residential area.

According to the Deeds Office data, the total housing stock in this area at the time was 17 138 and the count for bonded housing stock was 13 133. These comprised full title, freehold and sectional titles but excluded farms and filling stations.

The size of the suburb was 16.45 square kilometres as reflected in Chapter 1 on suburb layout. To qualify for an interview, respondents (sampled population) had to be owners of bonded properties and also had to be in the process of paying towards the bond. This meant that owners of properties in the study areas whose bonds had been paid off did not qualify for interviews, therefore the next household (units of population) whose bond payment was still active had to be looked for.

The precision of the sampled population and subsequent responses was considerably important in light of the objectives of this investigation as well as for determining the extent of the measured variables (dependent and independent). In view of data capturing, analysis and findings the targeted units of the population and problem statements were adequately responded to with an insignificant margin of error.

4.10.2 Determining sample size and type of sampling

Meyers et al. (2006) are of the opinion that a population is composed of all entities fitting the boundary conditions of who or what the researcher intends to subsume in the research (Meyers et al., 2006). Further, populations are typically made up of people meeting certain criteria (Meyers et al., 2006).

In most situations it is not possible to include all the population members in a research study (Meyers et al., 2006). "Instead, we select a workable number of individuals to represent the population, that set of participants in the study is the sample" (Meyers et al., 2006: 17). Fox (1998) states that we can use distributions of sample data to describe the population from which the sample was drawn.

Thus, due to the size of the population, selecting an appropriate sampling technique for this investigation presented some difficulties. In this study, the population was Protea Glen homeowners. However, being a homeowner did not automatically mean that all units of the population were eligible to be interviewed. Only those still paying off home loans were entitled to be interviewed, hence the enclosure of the filter questionnaire technique.

As Protea Glen is a township comprised of various sections, this meant that responses were to be as representative as possible of the Protea Glen population and that the 150 questionnaires were to be equally distributed. From the aggregated population, the researcher pooled the Protea Glen sections into seven in the form of stratum. This was to ensure that data was only elicited from the population meeting the criterion. Population is a term that sets boundaries on the study units as it only focus on individuals who possess specific characteristics (De Vos 2003: 298).

The total population (homeowners with active bonds) was thirteen thousand one hundred and thirty three houses (13 133). While the universe (the whole suburb township) had a total of seventeen thousand one hundred and thirty eight houses (17 138), four thousand and five

(4005) of which were fully paid and not active in the bond repayment market, hence the population of 13 133 for the study. This represented a proportion of 77% of the entire Protea Glen Township.

I accordingly selected a suitable sampling procedure that was sufficiently representative to statistically test the problem statement, especially when the population size is too large considering limited time and resources. The confidence interval or margin of error is also an elementary formula in determining the relevant sampling technique of the population under study. In view of the above, the problem statement and objectives of the study, that is, interviewing only respondents who are homeowners and still paying off home loans, the units in the study population justified the relevant sampling technique.

4.10.3 Stratified sampling

The purpose of dividing the population into sub-populations was to increase accuracy and minimise cost. Pooling the population into groups rationalised the application of a stratified sampling technique. Stratified sampling is defined by Mason (1992: 8) “as a tool of sampling that can be used to reduce the variability of the sample”. Strata are identified as “regions of the site that are expected to be uniform in character, added Mason” (Mason, 1992: 8).

This is a view substantiated by Young (1997) when he states that stratified samples are obtained by taking samples from each stratum or sub-group of a population (Young: 1997). When we sample a population with several strata, as Young (1997) establish, we generally require that the proportion of each stratum in the sample should be the same as in the population. As a result, 150 questionnaires were allocated into seven (7) strata (sections in Protea) with each strata apportioned 21.4 questionnaires, meaning $150/7=21.43$.

4.10.4 Random sampling

Bailey (1987) states that in a random sample each person in the targeted universe has an equal probability of being chosen for the sample, and

every collection of persons of the same universe has an equal probability of becoming the actual sample (Bailey 1987). This is true regardless of the similarities or differences among them, as long as they are members of the same universe. This is confirmed by Willemse (1999) when she states that in random sampling every item in the population has an equal chance of selection at each successive stage of the selection process (Willemse 1999). In random sampling, the selection is entirely random, and the selection of each household is not dependent on the selection of other households (LSHTM, 2009).

Undoubtedly, one of the most central elements of the sample, irrespective of sample size, is that its distribution represents the range of the population in terms of segmenting, identifying and labelling the elements of the population, street names and house numbers in specifying the required combination. It is not to suggest that random sampling is a smooth and risk-free technique. To the contrary, Black (1999) argues that the disadvantage of random sampling is that it is impossible without a complete list of population members and potentially uneconomical to achieve. Black (1999) also maintains that although it is easy to apply simple random sampling to small populations it can be expensive and unfeasible for larger populations (Black,1999).

4.10.5 Selecting field researchers

Conducting research of this magnitude, it became evident that choosing qualified researchers was mandatory as they had to be able to develop a rapport with the interviewees, use suitable language, be honest, open, strongly motivated to work under difficult conditions and, have experience in conducting social surveys which requires good communication skills. With the assistance of my Supervisor, two researchers working at the School of Architecture and Planning as research assistants, both with Master of Science in Development Planning degrees, were recruited to assist in the field. In view of the quality of responses, response rate, completed questionnaires, etc., the significance of selecting researchers of high competence was validated.

4.10.6 Obtaining an ethics clearance certificate

Addressing issues of ethical consideration and confidentiality was a vital component of this exercise. Owing to the fact that the study was investigating social and economic phenomena certain considerations had to be observed. I was mindful of the fact that I might encounter some homeowners facing difficulties with regards to mortgage repayments and whose relationship with lenders were poor, causing them to be reluctant respondents.

Getting data and information in this instance was crucial and was closely linked with the process of getting consent from respondents in a suitable manner. It was therefore paramount that I be guided by ethical guidelines. Owing to the social and economic nature of the investigation, I had to apply and obtain an Ethics Clearance Certificate from the Human Research Ethics Committee (HREC) of the Faculty. The completed application was first submitted on 12 November 2010. After attending to all the comments and feedback from the Committee the final submission was made on 8 March 2011. On 18 March 2011 the Committee issued the Ethics Clearance Certificate. The clearance certificate Protocol number is H1 10203.

4.10.7 Attending to consent and confidentiality issues

I ensured that respondents were made to understand what the research is all about regarding its intents and purposes and also how the collected data from them would be used and how important it was for them to give information that was as accurate as possible. Their right to remain anonymous was guaranteed and every effort was taken to protect their identities.

This was initially explained in a covering letter attached to each questionnaire and read out to all prospective respondents. According to Laws (2003), research needs the freely given informed consent of its respondents in order for it to be ethical. Antonius (2003) affirmed that any research design must be subjected to ethical guidelines that ensure that subjects are not harmed but are informed of the purpose and conditions of

research and its potential consequences, that they consent to be part of it, and that their privacy is respected.

4.10.8 Contacting respondents and building rapport

Behr (1983) is of the view that in conducting an interview, the first task of the interviewer is to establish a rapport with the interviewee. This is done, *inter alia*, by putting the latter at ease through gaining his/her confidence, and conveying to him/her the impression that he/she is in possession of information or knowledge which is needed for the research and which cannot be obtained from anybody else (Behr, 1983). There were three types of respondents, (i) borrowers, (ii) lenders (banks) and (iii) selected regulatory institutions. All respondents, with the exception of consumers, were contacted via both email and telephone. Consumers were contacted personally.

I acknowledged the relative importance of first contacting community or civil leaders to gain access without any potential hassles and for them also to be viewed as interested participants. Meetings were then arranged and proper briefings were done to communicate our intent and envisaged presence in the location. Such influential people proved to be of great value in assisting with field organisation and logistics, especially with the members of the target population. Further, it helped us to understand the cultural, ethnic and linguistic diversity of the population universe. Consequently, the response rate confirmed the importance of this approach when conducting social research.

As for the institutions, during the initial contact the aims of the study were clearly presented. Further, potential benefits of participation were also explained. As such, all four mainstream banks, with the exception of only one of the contacted banks, responded adequately to the questionnaire. All the contacted regulators also responded satisfactorily. This again validated the essence of this approach in eliciting and obtaining information. This, to a large extent, encouraged greater cooperation and yielded the desired response rate.

4.10.9 Training of field researchers

The skills and experience of the selected researchers meant that I did not have to train them intensively. We had ensured that the technical aspects of the field work, under the supervision of the researcher, were properly comprehended. These included training and familiarising researchers with the terminology and technical financial concepts.

The ability of the field researchers to simplify such concepts when eliciting responses from respondents when the need arose, choosing units of population to be sampled, familiarity with sections of the location, editing collected data and cross-checking raw data was also important. We established the training procedure by evaluating the quality of the questionnaire responses during the application process. This was especially important in view of the problem statement and theoretical assumptions.

4.10.10 Piloting and testing the questionnaire

Survey questionnaires and interview schedules in social research can be influenced by a range of factors. It was therefore important that the instruments were tested and validated. This process was to give us a relative empirical account of what to expect in the field vis-à-vis the length of the questionnaire, quality of the questions relative to the hypotheses, cultural and ethical challenges of questions, etc.

The first stage of pilot testing was done by the three researchers (two appointed researchers and myself, under supervision at the time). The second stage involved randomly selected colleagues and students. The third and the last phase included community members that were not part of the sampled population. In total, the questionnaire had to be revised and pilot tested nine times to ensure its adequacy.

The application of the questionnaire in a group setting, as well as the field procedures in an environment similar to that expected in the actual study situation, had to be pilot tested. This afforded us the opportunity to practice all the activities that were anticipated to be carried out in the field

and also to improve and sharpen our interviewing techniques. This could only be done by cross-checking, revising and finalising the instruments. Such an approach provided us with the opportunity to clarify and sequence questions and eliminate any potential ambiguity.

Lastly, the process highlighted possible problems that might lie ahead and provided opportunity to deal with these or prepare the researchers adequately before undertaking the field work. The anticipated challenges included unfriendliness towards outsiders, unwillingness to participate and, possible refusal to respond to certain sensitive questions, such as. income and education questions.

4.10.11 Preparing for interviews

After the research instruments had been pilot tested and all the necessary adjustments had been made, informed by the pre-testing experimentation, it was time to prepare all of us to get into the field. This included decisions regarding our approach to the respondents, appropriate techniques for eliciting spontaneous responses, dealing with diverse responses that we might come across, unrelated and inappropriate responses, etc. Then all the questionnaires needed to be printed and had to be thoroughly proofread to correct any possible mistakes.

4.10.12 Managing field work challenges

The researchers had their fair share of field work challenges. These ranged from inaccessibility due to high walls and locked gate entrances to hostile attitudes and the unavailability of respondents. It soon became apparent that it would not be possible to follow our schedule. This meant that times and planned deliverables had to be seriously adjusted.

This was primarily because the research was conducted in a residential area of Protea Glen in Soweto and that to qualify for an interview, a respondent had to be an owner of a bonded house and also had to be in the process of paying for the bond. A total of 150 interviews were planned in the area with an initial time frame of one month, from April to May 2011.

This proved impossible due to factors such as unavailability of respondents as owners responsible for monthly bond payments were either away from their homes conducting family activities such as shopping, attending funerals, doing hospital visits and attending family meetings, or were busy with other activities that they usually did not have time for during the course of the week when they were at work.

Patience and tolerance had to be factored in to ensure that our objectives could be obtained. Subsequently, interviews were only concluded in September 2011. The lesson learned was that no amount of preparation can adequately equip and ready any researcher except the actual interview process itself as it is impossible to predict how the researcher, as an outsider, might be received by the respondents.

4.11 Data capturing and analysis processes

The first step was to do the encoding of all responses and to check form completeness in preparation for data capture. The encoding enabled us to achieve easy and speedy data capturing processes as well as to reduce spelling and numeric errors in the final database.

After the coding and editing process, data capturing commenced. The most important task on the choice of software for data capturing was to ensure accuracy and also that errors were controllable and controlled. Willemse (1999) states that the term “error” in statistics does not mean “mistake”. It is defined as ‘the difference between the ‘true value’ of a variable in a population and the value observed in a sample” (Willemse, 1999: 15). “An appropriate instrument for this kind of research that made it possible to perform verification, was the choice of SPSS as the preferred software” (Willemse, 1999: 15).

According to Holiday (2011) SPSS stands for Statistical Package for the Social Sciences and organises quantitative research data into various statistical formats to determine the relevance of variables associated with the research topic (Holiday, 2011).

Thus, the SPSS software was suitable for data entry, processing, tabulating, and mapping census and, in this instance, survey data. The tool allowed for the creation, modification and running of data entry batches, and allowed me to edit and cross-tabulate applications from a single integrated development environment. Most importantly, errors were minimised and data was verified through cross-checking methods.

Processing the data using SPSS formats meant that particular attention had to be given to the following:

- data entry and preliminary validation;
- merging of files;
- data validation (further checking, editing, etc.);
- completion of data capturing;
- generation of data files;
- storage of all files; and
- backing up of data.

The SPSS made it easy for me to generate detailed reports on any particular errors found. The instrument supported both dependent and independent verification for ensuring the accuracy of the data entry operation. In order to ensure 'clean' data, the identification of common errors, classifying missing values and possible duplication a data entry template was designed during the process. This resulted in restricting the errors occurrence potential. After I had completed this stage, the final phase before analysis was to ensure that all the data set pieces entered were preserved and that completed questionnaires were safely stored.

Relevant test statistics had to be computed in order to interpret the data. Formal statistical procedures are paramount to scientifically test hypotheses from a set of primary data. This study evaluates the correlation between dependent and independent variables and established that finding the most appropriate software was extremely important. The SPSS programme was shown to be the best software for the purposes of this study.

With the aid of SPSS the analysis was then undertaken on three levels: the univariate, bivariate and multivariate. For a conclusive understanding of the application and relevancy to the analysis of the study, it is necessary to provide definitions of the three abovementioned levels. According to the Web Center for Social Research's online report (2011), the univariate analysis explores each variable in a data set separately. It looks at the range of values as well as the central tendency of the values. It describes the pattern of response to the variable. It involves the examination across cases of one variable at a time (Web Center, 2011).

According to the Unesco online report (2011), bivariate analysis is concerned with the relationships between pairs of variables. In other words, it is a method used to compare how two variables relate to one another. For the bivariate level, two variables of interest were compared using appropriate statistics and at the multivariate level model building was the most important. Fitting a model to the relevant variables was done in order to explain the causal factors of propensity to default or not to default.

4.12 Univariate, bivariate and multivariate analysis

In this investigation, descriptive statistics of selected measured economic and demographic variables were presented, using univariate analysis.

In this section the emphasis was on the relationship or correlation analysis of the measured dependent and independent variables. Willemse (1999) states that "correlation analysis is used to describe the degree of strength by which one variable is linearly related to another" (Willemse 1999: 189).

Pearson's correlation coefficient was then used for variables that were continuous and for those that were categorical cross-tabulations. A Pearson's chi-square statistic and its corresponding asymptotic significance (probability value) were used as the standard measures of correlation between the respective independent variables.

Kremelberg (2009) defines the chi-square statistic as a concept used to show whether or not there is a relationship between two categorical variables. It can also be used to test whether or not a number of outcomes

are occurring in equal frequencies or not or conform to a known distribution. Correspondingly, Willemse (1999) describes chi-square as a probability distribution which enables the testing of hypothesis concerning more than two distributions.

Analyses were done at a 5 per cent significance level. Rejection or non-rejection was reported depending on the set null hypotheses. The null hypothesis is the proposition that implies no effect or no relationship between phenomena (Handbook of Biological Statistics, 2011). The testing of corresponding asymptotic significance (probability value) of the variable was done through cross-tabulation. The multivariate analysis as described by the Marketing Research Information Centre of the University of Florida in the US, referring to a group of statistical procedures used to simultaneously analyse three or more variables, was used for cross-tabulation analysis.

According to the National Council for Social Studies (2011), cross-tabulation procedure provides tabulation of two variables into two-way tables (NCSS, 2011). Cross-tabulation is a statistical technique that establishes an interdependent relationship between two tables of values, but does not identify a causal relationship between the values (ibid).

4.13 The use of logistic regression

As I explained earlier in this chapter, in Sections 5.7 and 5.8 when describing the independent and dependent variables and correlation measurement, this study makes use of the logistic regression technique. Logistic regression provided me with the probability of quantifying the relationships between different types of measured variables. Bohrnstedt and Knoke (1988) affirm that the logistic regression model is an equation for the linear relationship between continuous dependent variables and one or more independent variables, plus an error term (Bohrnstedt and Knoke, 1988).

Korn and Simon emphasise that logistic regression is used to model the probability of a positive outcome for a binary 0-1 outcome variable as a function of covariates. An example, described later in more detail, is a logistic regression model predicting snuff use as a function of demographic variables: age, income, education, etc., (Korn and Simon 1991).

Thoresen and Laake (2000) are of the view that models in logistic regression have received considerable theoretical interest in research surveys over the past 10-15 years due the fact that it is an essential component of the explanatory variables that are measured and to explain behaviour of these methods (Thoresen and Laake, 2000).

Abdalla and Habil (2002) reveals that the logistic regression model is a fairly straightforward generalization of the binary model and that both models depend mainly on logit analysis or logistic regression. Logit analysis in many ways is the natural complement of ordinary linear regression whenever the response is categorical variable illustrated (Abdalla and Habil, 2002).

Elaborating further, Abdalla and Habil (2002) state that when such discrete variables occur among the explanatory variables they are dealt with by the introduction of one or several (0, 1) dummy variables, but when the response variable belongs to this type, the regression model breaks down and Logit analysis provides a ready alternative.

In a typical logistic regression analysis there will always be one dependent variable and usually a set of independent variables that may be either dichotomous or quantitative or some combination thereof, assert Meyers, et al. (2006). Furthermore, the dichotomous variables need not be truly binary; for example, researchers may transform a highly skewed quantitative dependent variable into a dichotomous variable with approximately equal numbers of cases in each category (Ibid).

Lin et al. (2011) demonstrate that the logistic regression model is used to predict the probabilities and measure the coefficients, making this research model a suitable technique to measure the degree to which the data approximates whether there is a possibility or not of any linear

relationship (Ibid). According Bohrnstedt and Knoke (1988) linear relationship is a co-variation in which the value of the dependent variable is proportional to the value of independent variable (Bohrnstedt and Knoke, 1988: 257).

4.13.1 Limitations of logistic regression

While the use of logistic regression is a fitting technique for this investigation, it is not without shortcomings in terms of survey analyses. According to Agresti (2002) the logistic regression model is simple but often inappropriate. The model may be valid over a restricted range of values, but it is rarely adequate when the model has several predictors, a view supported by Bewick et al. (2003).

With regard to its limitations, Bewick et al. (2003) illustrate that in logistic regression no assumptions are made about the distributions of the explanatory variables. However, they added that the explanatory variables should not be highly correlated with one another because this could cause problems with estimation. Large sample sizes are required for logistic regression to provide sufficient numbers in both categories of the response variable. The more explanatory variables, the larger the sample size required.

4.14 Defining the broader market segment

The Living Standards Measure (LSM) is South Africa's indicator used to measure households' living standards. According to Seeking (2006), LSMs are used by government and Statistics South Africa to measure income, wealth and living standards of households. The LSM was originally developed by the World Bank to explore ways of improving the type and quality of household data collected by statistical offices in developing countries. Its goal is to foster increased use of household data as a basis for policy decision-making (World Bank report). A UN statistical report (2005), entitled *Household Sample Surveys in Developing and Transition*

Countries, such as Albania, Brazil, Jamaica, South Africa and Nepal, have designed LSMs to statistically test the scale of individual countries' socio-

economic profile. In South Africa the LSM is mostly used to measure consumer behaviours, knowledge, demand for goods and services and other related products. South Africa's LSM was developed by the South African Advertising Research Foundation (SAARF).

As the focus of this study is on low income households and the lack of borrower education and non-payment behaviour the LSM matrix was used as a guiding tool to measure and classify the household data and information of low income households.

In this investigation we targeted 4-10 segments classified as low income households by the LSM. These are households with incomes of R1 534.00 (LSM 4) and R10 561.00 (LSM 10) per month. The total population size of R1 534.00 (LSM 4) was 4 million people and 1.6 million fell in the R10 561.00 (LSM 10) category (FinMark Trust, 2005). The Banking Association of South Africa (BASA), a governing body of the banking, insurance and financial services sector, defined low income households in 2006 as those earning R1 500 to R7 500 (+CPIX) monthly and household income. Inflating that income category to 2011, the ceiling of that income segment is approximately R12 000.

4.15 Limitations of the study

While attempts have been made to explain various themes on housing in general, very few scholars have synthesised and related data directly to the relationship of a lack borrower education and the probability to default. Thus, this investigation was constrained to certain degree by the lack of readily available literature specifically related to the problem statement. The non-availability of applicable literature to understand the problem under study presented a challenge; the actual relevant literature proved inadequate.

4.15.1 Sample size limitations

The first eighth area of limitation that has to be acknowledged was the sample size. The hand collecting survey research data is not only wearisome but also costly and time consuming. It is largely known that larger samples reduce research error; nevertheless they can be expensive, time-consuming, and often unfeasible. Smaller samples, on the other hand, are generally less costly and less monotonous.

Smith and Wells (2006) stated that as the sample size increases, the sample mean will be normally distributed for most underlying distributions, hypothesis tests are robust against the violation of normality., Hackshaw (2008) adds that the main problem with small studies is interpretation of results, in particular confidence intervals and p-values. When conducting a research study, the data is used to estimate the true effect using the observed estimate and 95% confidence interval (Hackshaw, 2008).

It is worthy to note Mason's (2010) theoretical supposition and interpretation of sample size. Mason (2010) sketched out that samples must be large enough to assure that most or all of the perceptions that might be important are uncovered, but at the same time if the sample is too large data becomes repetitive and, eventually, superfluous (Mason, 2010). While an appropriate sampling frame to the problem statement was carefully selected, I would have preferred to have a more representative sample proportional to the population size. But due to costs and funding issues time it was not possible. However, under the circumstances, I was particularly happy with the actual survey response rate (in excess of 70%).

4.15.2 Data gathering and analysis limitations

On end-user survey data the study had a total of 82 questions testing the hypothesis. The questions were classified according to four categories, namely: (i) filter category (2 questions); (ii) demographic variable (7 questions); (iii) information scale (40 questions); and (iv) economic and financial variables (33 questions). The investigation concentrated only on essential elements of the study of which the variables were significant to test hypothesis.

The first area of limitation was experienced when all respondents were unable to respond to the question about the interest rate of their loans, term of the loans as well as the size of the loans. The respondents seem only to be aware of how much they were paying and by which year the loan amortized. While this was a stand-alone question, not linked to any other questions, it had a bearing both on the data gathering process and impacted on the hypothetical statement on interest rate increases and the probability to default.

On lender survey information, a total of 19 questions were prepared to test the hypothesis on lenders. The questions were divided into 3 sections, namely (i) borrower education offering and effectiveness; (ii) compliance to regulations; and (iii) mortgage defaults rate.

The second limitation in this regard was the refusal of one of the big four banks to participate, despite numerous requests.

The third area of limitation was with regards the data capturing, analysis and interpretation. This was originally set to be completed within six months. This proved impossible due to the volume of data received and delays due to the system's technicalities. This meant that an additional six months on top of the original five month targeted timeline had to be added. This in part was also due to my meticulousness in ensuring the accuracy and precision of capturing and analysing huge data files.

As it is often expected when conducting social research surveys as an external observer with community members (homeowners) being the respondents, there were ethical and social challenges and requirements that had to be observed and greater care was taken to accommodate this. However, despite such considerations, constraints were still experienced.

The issue of finding homeowners who were actively paying for their home loans examined through filter questions proved to be quite a task as some were unwilling to participate.

The fourth area of limitation experienced was in relation to the number of respondents qualifying for interviews. In extensions 1, 2 and 3 many

houses had already paid off their mortgages. The resultant impact was that certain township extensions weighted less.

The fifth area of limitation was experienced in gaining access to the respondents' households. Most of the residents' properties are wall fenced, with iron gates that block a view of the house from the street. In this way it was difficult to determine whether the residents of the house were present or not.

Another accessibility problem was that the gates were usually locked, implying that the residents were not available, but in some cases the gates were locked even when the residents were available, and it took time before we could start interviewing. Sometimes a threat of attack from dogs on the premises had to be overcome, thus implying more time wasted determining the researchers' safety upon wasting more time.

The sixth area of limitation was that of reception. Although the reception was good in most households in which the respondents understood the essence of the survey, other households showed some hostility towards us. As a result, many explanations had to be given before the respondents would agree to participate in the interviews. In some cases we had to mention the meetings we had with civil leaders to get some attention.

In summing up, while the delays could be seen as an opportunity for me to refine and perfect other sections of this investigation, on the whole this scenario impacted negatively on the study as it meant that the preliminary project deadlines and deliverables had to be seriously adjusted.

CHAPTER 5

Findings and analysis

5.1 Introduction

This chapter presents the findings after the data was analysed and tested against the hypotheses, using SPSS. Frude defines SPSS as a statistical software package used to analyse data obtained from a survey in which we have collected many items of information (variables) from a number of different people (called subjects or respondents or, more generally, cases) (Frude, 1993). The analysis was then done at three levels: the univariate, the bivariate and multivariate.

5.2 Quantitative analysis

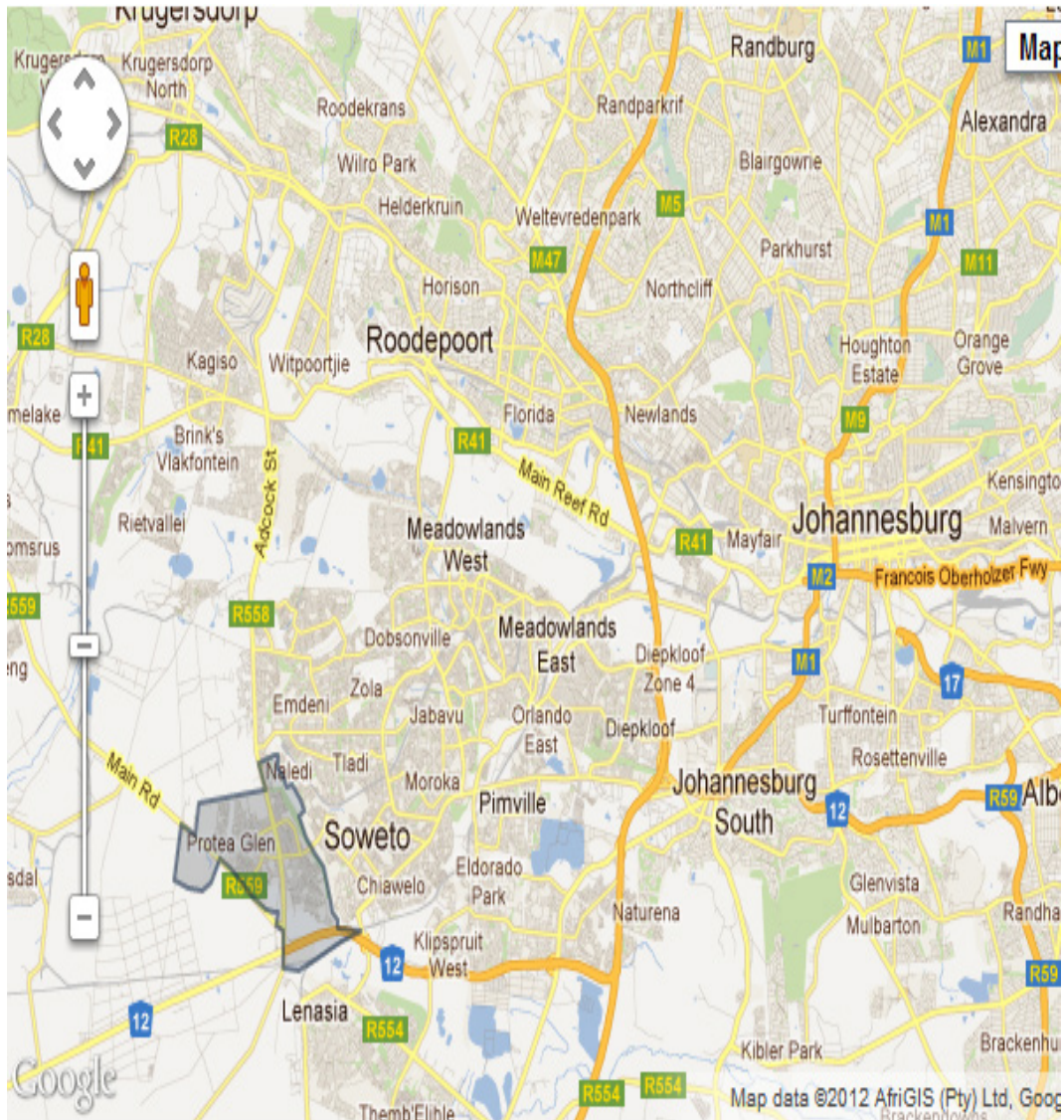
As depicted in Maps 1 and 2 and Figure 2 below, Protea Glen is a conveniently located middle-income township district. Evident from the township layout there are different morphologies, diverse architectural plans and variable structural designs accommodating various segments of income categories within low and moderate income households. This is reflected by pictures taken of different extensions of the suburb illustrating the make-up of the suburb.

Also, this characterises the possibility of economic development features and income growth mobility of households in the suburb. Protea Glen is situated near highways, taxi ranks, bus stops and shopping malls. Portraying the outlook of the suburb is the presence of infrastructure, retail business, amenities and recreational facilities.

The township residents are near schools, a medical clinic, a park and library facilities. Protea Glen is approximately 30km from the Johannesburg city centre as shown in the map below (Map 1) making it an attractive township to live in. The atmosphere in Protea Glen is generally

tranquil; somewhat different to those of surrounding townships such as Naledi, Mdeni and Mapetla.

Map 1: Layout view of Protea Glen relative to Johannesburg and surroundings



Source: Lightstone and Google

Figure 2: Mortgage financed properties in Protea Glen, Soweto (Source: Author)



ProteaSouth, 36m²

Extension 2 Protea Glen, 40m²



Extension 1 Protea Glen 40m²

Extension 11 Protea Glen, 80m²

5.2.1 Findings regarding the Protea Glen sample sizes

- The total number of all properties (freehold and sectional titles) in Protea Glen were 17 138.
- 13 133 of those properties were bonded/mortgaged properties.
- This represented a total of proportion of 77% of the suburb.
- The measured area size of the area is 16.5 square kilometres.
- A total of 150 questionnaires were prepared.
- Of the 150 questionnaires, 104 questionnaires (104/150) were adequately responded to.
- This represented a response rate of 70%, meaning that for every 10 questionnaires administered, 7 were adequately responded to.

5.2.1.1 Field Work Response Rate Challenges

The researcher as stated above had a total of 150 questionnaires and 104 of which were completed satisfactory. This corresponded to a response rate of 70%, suggesting that for every 10 questionnaires administered, 7 were adequately answered.

The questionnaire balance between 104 (responded to) and 150 (total number) is 46 (not completed). Of the 46 (30% of the total number) questionnaires that were not captured and analysed, 28 (60%) of them were incomplete. This was due to respondents who refused to answer questions they deemed very private.

These included eliciting responses about income, marital status, whether they defaulted or not defaulted on their mortgages. It is worthy to point that this happened in-spite of the researcher's persuasion and anonymous and confidentiality guarantees.

The other 18 (39%) of the 150 questionnaires were virtually incomplete as respondents who advised (due to time constraints) to have the interviews completed the next day were either unavailable on the agreed appointment or refused to continue with interviews.

5.3 Findings regarding the demographic composition of Protea Glen

Table 3: Demographic composition of Protea Glen

Income	R3,500 - R6,500	R6,500 - R10,000	R10,000 - R16,000	Grand Total
Households	953	3 521	10 197	14 671
Adults	1 702	7 299	20 501	29 502
Economically Active Adults	751	3 290	9 238	13 279
Economically Active Adults including grants	905	3 582	9 238	13 725
Age 0-18	1 029	4 438	11 860	17 327
Age 18-30	446	2 055	6 171	8 672
Age 30-40	115	505	1 537	2 157
Age 40-50	583	2 374	5 475	8 432
Age 50-60	408	1 723	5 408	7 539
Age >60	150	642	1 912	2 704

Source: Lightstone: February 2012

5.3.1 Findings regarding the gender of respondents

In measuring the gender status of the surveyed population who are homeowners, the table below shows that the majority of homeowners responsible for monthly bond repayments were males (at 62.5%) while females only constituted 36.5%. This illustrates that males still dominate in terms of household budget contribution of a household as a bond is the biggest expenditure of many households' balance sheets.

Table 4: Gender of respondents

		Frequency	Per cent	Cumulative Per cent
Valid	Female	38	36.5	36.5
	Male	65	62.5	99.0
	missing	1	1.0	100.0
	Total	104	100.0	

5.3.2 Findings regarding the marital status of respondents

The majority (56%) of the surveyed respondents were married couples. Those were followed by single status relationships that constitute 27% of the total. A total of 6.7% reported to be living with their partners and 5.8% were divorced while the 3.8% were widowed. The finding that the majority of homeowners are married couples enhances the preconceived notion that propensity to access credit for a home loan increases for households with a joint income.

Figure 10: Marital status of respondents

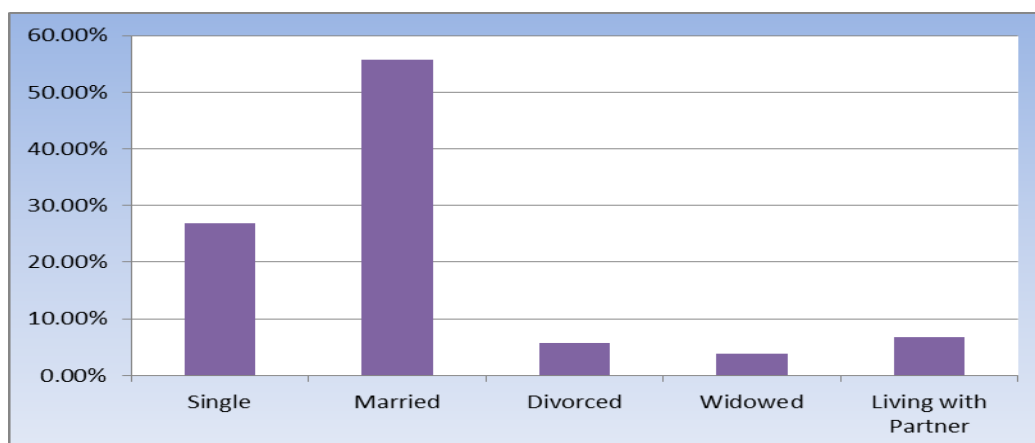


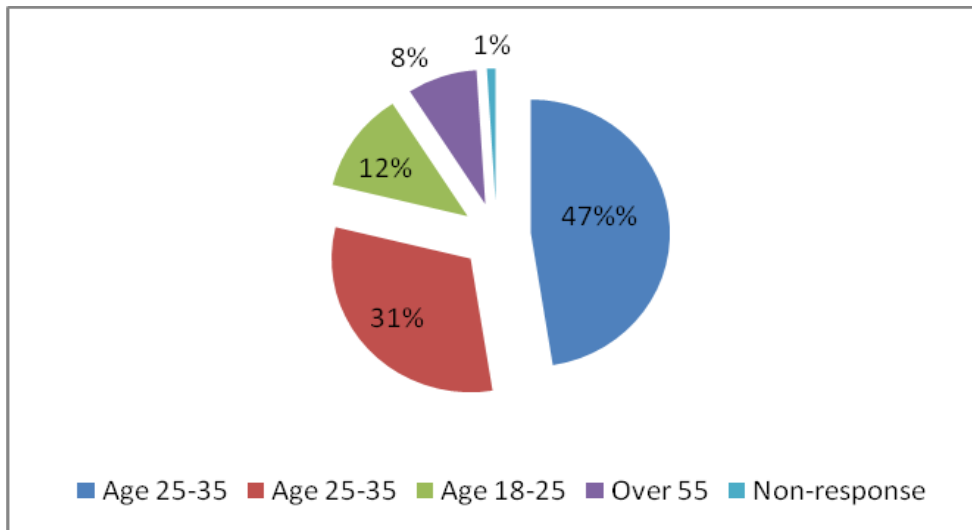
Table 5: Marital status of respondents

		Frequency	Per cent	Cumulative Per cent
Valid	Single	28	26.9	26.9
	Married	58	55.8	82.7
	Divorced	6	5.8	88.5
	Widowed	4	3.8	92.3
	Living with partner	7	6.7	99.0
	Missing	1	1.0	100.0
Total		104	100.0	

5.3.3 Age analysis of the respondents

As reflected below, a large number (47%) of the respondents was aged 25-35 and was followed by those in the age category of 35-45 who constituted 31% of the total. Age categories 18-25 and over 55 years comprised 12% and 8% respectively. In terms of Protea Glen's age population, the suburb has a total of 29 504 working adults aged 18-60.

Figure 11: Age Analysis of the respondents



5.3.4 Employment sectors of respondents

When asked about the nature of their employment sectors, just over half of employed households with regular incomes are reported to be employed by public sector/government (51%) followed by private sector (42%) and 3.8% were unemployed, mostly retired and running their own business and used pension fund money for loan repayments. It should be noted that the study concentrated its focus only to those household whose mortgage loans were still active and subject to monthly repayments. Results seem to indicate that government is the major employer among low and moderate income households in South Africa.

Table 6: Showing employment sectors of respondents

	Frequency	Per cent	Cumulative Per cent
Government	53	51.0	51.0
Private	42	40.4	91.3
Informal	2	1.9	93.3
Unemployed	4	3.8	97.1
Missing	3	2.9	100.0
Total	104	100.0	

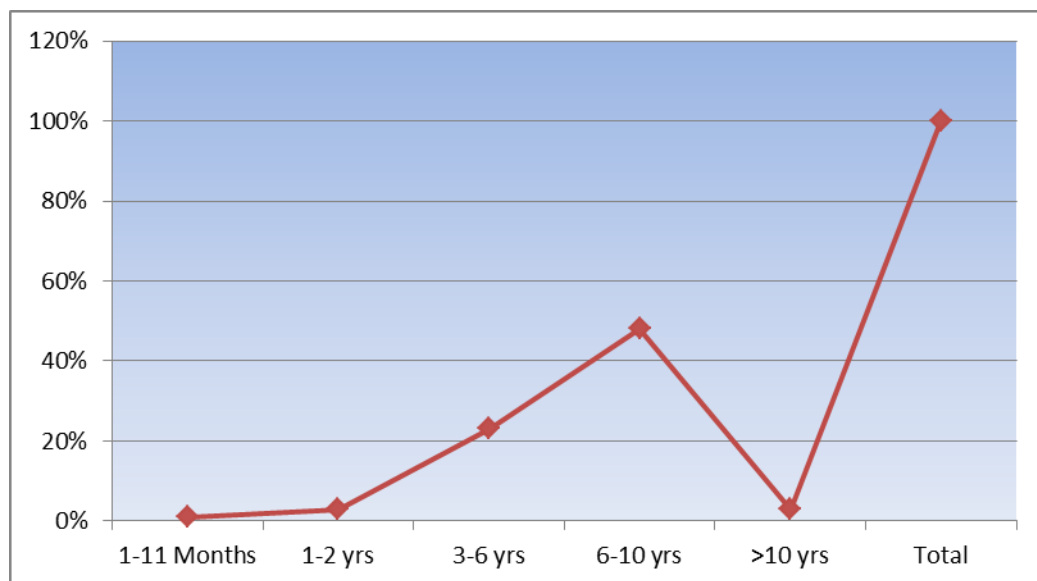
5.3.5 Length of employment of respondents in present job

When the respondents were asked about the length time at their present jobs, answers showed that the population was fairly stable in their current jobs. Nearly 50% of households in the target population had stayed in their current jobs for over ten years and those with three to ten years in their present jobs cumulatively represented 45% of the surveyed households. This could be pointing out to the phenomenon: (i) stability of the market in the work place; (ii) a possible lack of upward-moving opportunities; and (iii) uncertainty or fear to change jobs due to job market insecurities.

Table: 7 Length of employment of respondents in their present jobs

Length	Frequency	Per cent	Cumulative Per cent
1-11months	1	1.0	1.0
1-2years	3	2.9	3.8
3-6years	24	23.1	26.9
6-10years	23	22.1	49.0
Over 10years	50	48.1	97.1
Missing	3	2.9	100.0
Total	104	100.0	

Figure 12: Length of employment of respondents in their present jobs



5.3.6 Educational level of respondents

The finding demonstrates that the sampled population is, on the whole, a relatively educated population. In response to a set of pre-determined statements about the probability of default relative to level of education, the survey households showed reasonable levels of education. The proportion of households with a degree or diploma qualification was higher (47.1%) than any other measured level of education category. While those with matric qualifications made up 39.4% of the total.

This statistic, together with the high percentage permanent formal employment and regular income, also explains their ability to buy houses. This is one of the key indices used by the banks when applying their credit assessment process for granting a home loan. This means that a significant proportion of the surveyed households fall into the category of approved home owners hence they have mortgage bonds.

Table 8: Education level of respondents

	Frequency	Per cent	Cumulative Per cent
Primary	1	1.0	1.0
Matric	41	39.4	40.4
Secondary	6	5.8	46.2
Diploma/Degree	49	47.1	93.3
Other	4	3.8	97.1
Missing	3	2.9	100.0
Total	104	100.0	

5.3.7 Total monthly income of households

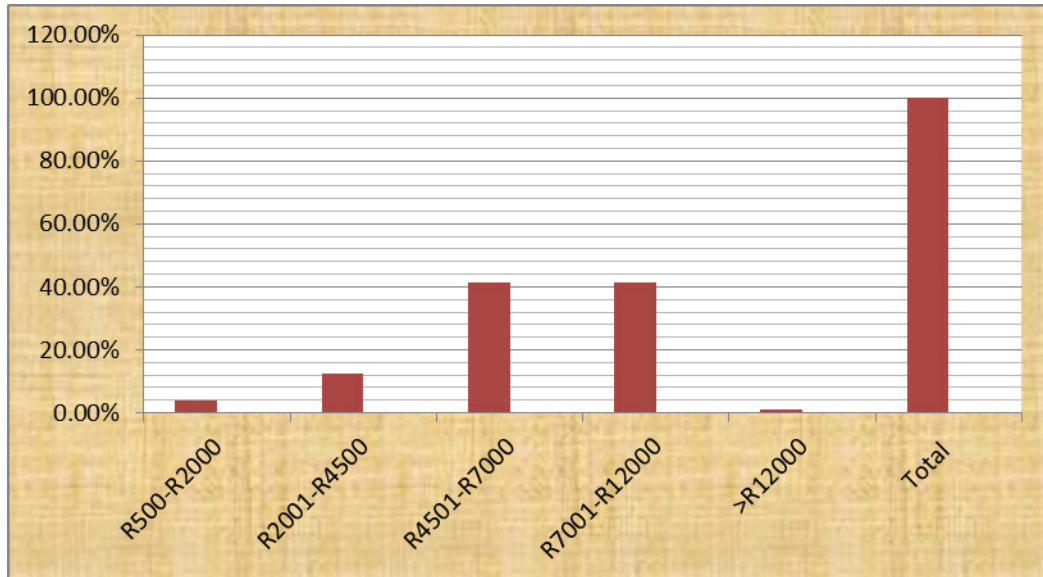
In general, income is the ultimate determinant for homeownership and the higher the income, the greater are the prospects of accessing credit. The effects of homeownership exclusions are felt mostly by the lower income groups. The finding on households' monthly income show that 86% of the respondents had joint income earnings of between R4 501 and R12 000 a month. Of those, 41.3% earn R7 000 – R12 000 per month.

The hypothesis was that higher income households are less likely to default as opposed to lower income households that are hypothesized to be more susceptible to non-payment. As delineated below, the majority of respondents are in the top category of the income pyramid of the surveyed market with only 12.5% earning R2 000 – R4 500 per month and 3.8% earning between R500 and R2 000 per month.

Table 9: Total monthly income of households

	Frequency	Per cent	Cumulative Per cent
R500-R2000	4	3.8	3.8
R2001-R4500	13	12.5	16.3
R4501-R7000	43	41.3	57.7
R7001-R12000	43	41.3	99.0
<R12001	1	1.0	100.0
Total	104	100.0	

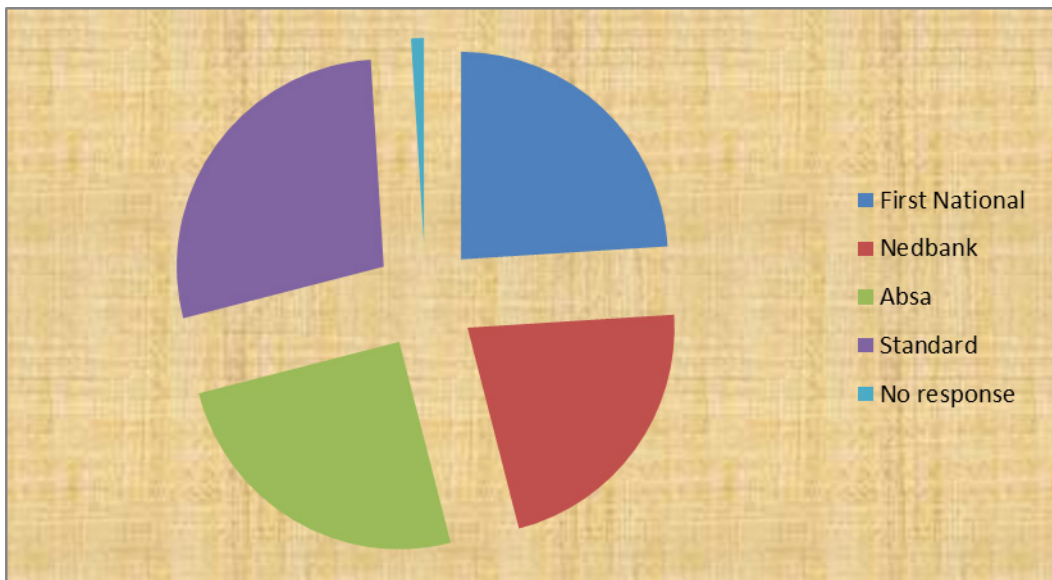
Figure 13: Total monthly household income



5.3.8 Banks' financing ratio of respondents' properties

All respondents' household properties were financed by the 'big four' banks in South Africa, namely ABSA, FNB, Standard Bank and Nedbank. From the chart below, Standard Bank is the largest lender in this market. According to Kamhunga (2011), Standard Bank is the market leader in the low income housing market, followed by First National Bank, Absa and then Nedbank. The figure below further provides statistical illustration on mortgage funding in rand values by all lenders in South Africa from 2007-2012. The figures are for properties below R500 000 as measured by Lightstone.

Figure 14: Bank's financing ratio of respondents' properties in Protea



Accordingly, a typical property mortgaged for between three to four years in Protea Glen reflects the following features:

Table 10: Typical loan schedule of a mortgaged house in Protea Glen

Bond Amount	R365 000.00
Interest Rates	12%
Term of the loan (months)	240
Home Owners Insurance	R108.54
Credit life, Admin fee, Initiation fee	R3,912.97
Monthly Repayments	R3099.00
Total Capital Debt	R1, 351,596
Amount Insured	R428, 950
Section in Protea	Section 11
Size of House	70m ²
Size of Land	270m ²
House Feature	3 bed, 1 full bath
Type of House (Structure)	See Sketch B. below

Source: Respondent

Figure 15: House in Protea Glen, Soweto Ext 12

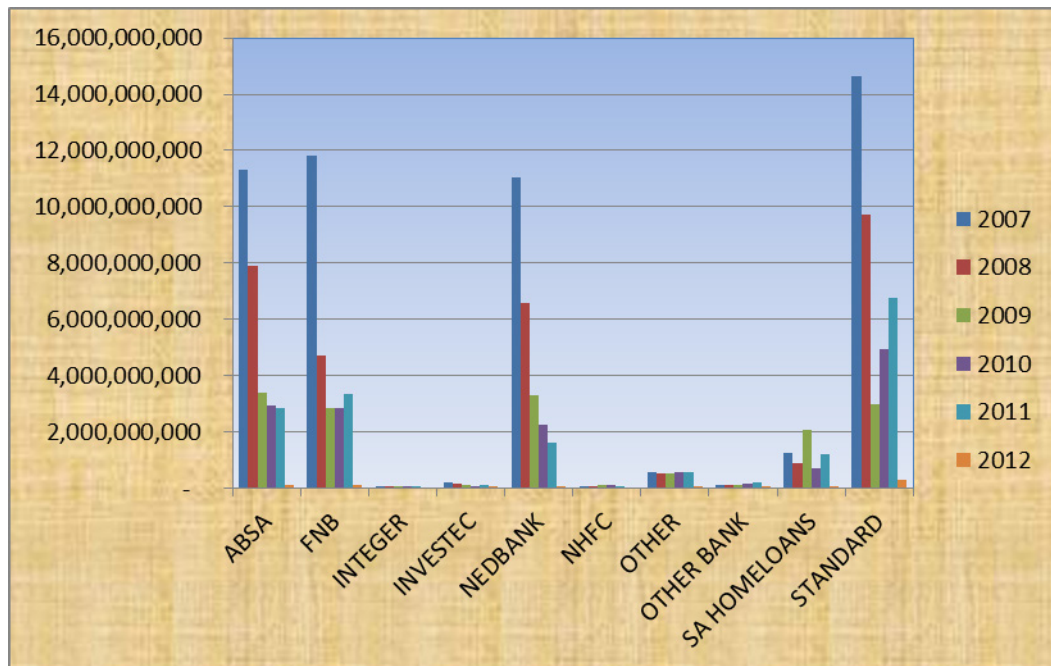


Source: Property24

The figure below (Figure 16) provides statistical illustration on mortgage funding in rand values by all lenders in South Africa from 2007-2012. The figures are for properties below R500 000 as measured by Lightstone. This illustration confirms that the big four banks (ABSA, FNB, Standard Bank and Nedbank) home loan market share dominance in the low and

moderate income housing market, loans priced up to R500 000. This correlates well with the banks 100% financing ratio in Protea Glen.

Figure 16 Findings on value (in billions) of bonds written <R500k from 2007 to 2012



Source: Lightstone

5.3.9 Lenders who provided education to respondents before taking out a mortgage

From the questionnaires it has become clear that financiers (banks) failed to explain the responsibilities and corresponding obligations of homeownership to the borrowers. A significant proportion (55%) of the market, when asked if the bank provided any form of information or empowerment before acquiring a house, indicated that they did not receive any such material compared with the 36% that reported to have received some form of information.

The lack of borrower education, as hypothesised in this study, is particularly associated with a propensity for default behaviour and investigating this trend was the main aim of this study. In order to comprehend if there was any correlation between the dependent variable (non-payment behaviour) and the independent variable (borrower

education), it was essential to ask questions which would elicit this kind of data.

Table 11: Lenders who provided education to owners before taking out a mortgage

	Frequency	Per cent	Cumulative Per cent
No	57	54.8	54.8
Yes	38	36.5	91.3
Missing	9	8.7	100.0
Total	104	100.0	

5.3.10 Defaulted and non-defaulted households on mortgages

One of the assumptions of this investigation was that the level of defaults was high and that this was due to lack of borrower education programmes. The results indicate that the vast majority of respondents, nearly two-thirds, defaulted.

On the other hand, households who had never defaulted represented a total of 31.7%. The findings illustrate that the difference between the defaulters and non-defaulters is quite significant as 64% of the respondents defaulted on their mortgage payments.

The general picture of foreclosures in South Africa as suggested by current statistics from Lightstone is on the decline. The affordable housing market statistics of houses priced up to R500 000 show that the number of registered distressed properties continue to shrink and are set to decline even further.

Unsurprisingly, Gauteng has been leading in regard to the number of distressed sales, recording a figure of 1 414 in 2009 against the national total of 3 279 recorded during the same period (Lightstone, January, 2013). The figures have however shrunk quite noticeably between 2010 and 2012, illustrating a sustained market recovery.

5.3.10.1 The national picture of defaults and sales in execution

In 2007, the properties that were executable was 2 139; in 2008 it was 2 696; in 2009 it was 3 279; in 2010 the figure was 2 237; in 2011 it was 1 646 and in the third quarter of 2012 the figure was 893. (Lightstone, January, 2013). The reported default rate (64%) in Protea Glen was exceptionally when contrasted by the national standard of default ratio by the banks.

The surveyed banks (FNB, Standard and Nedbank) when asked about their national mortgage default have reported a cumulative figure of 21%. Meaning, the Protea Glen (64%) is remarkably high and virtually three times the amount of default rate of the three banks combined.

Table 12a: Defaulted and non-defaulted households on mortgages

	Frequency	Per cent	Cumulative Per cent
Never defaulted	33	31.7	31.7
Defaulted	67	64.4	96.2
Missing	4	3.8	100.0
Total	104	100.0	

5.3.11 Respondents' relationship with their lenders

One of the hypotheses of this study hypothesis was that a poor relationship between lender and borrower may contribute to non-payment behaviour. As a result of this history of poor relationship between borrower and lender, negative perceptions and attitudes among borrowers towards lenders have been created, with borrowers believing that banks are insensitive and only concerned with profits margins. Asking the right questions to measuring this was thus essential to for this study.

The respondents (35.6%) indicated to be having a good relationship with the lender. Twenty-one per cent (21.2%) of the respondents seem to enjoy a very good relationship with the lender, while 21.2% expressed that their

relationship with the lender is poor and 14.4% classified their relationship with the lender as fair. Whether this relationship impacts on non-payment or not will be determined in the cross-tabulation section between non-payment and lender relationship to be presented below.

Table 12b: Respondents' relationship with lender

Scale	Frequency	Per cent	Cumulative Per cent
Poor	22	21.2	21.2
Fair	15	14.4	35.6
Good	37	35.6	71.2
Very good	22	21.2	92.3
Missing	8	7.7	100.0
Total	104	100.0	

Figure 17: Respondents' relationship with the lender



5.4 Cross-tabulation findings: defaulters and non-defaulters versus lender's borrower education before obtaining a mortgage

Using bivariate analysis, this section highlights that Pearson's correlation coefficient was used for variables that were continuous and for those

categorical cross-tabulations, and that a Pearson's chi-square statistic was done. Its corresponding asymptotic significance (probability value) was also used as the standard measure of correlation between the respective independent variables. Analyses were done at a 5 per cent significance level. Rejection or non-rejection was reported depending on the set null hypotheses.

Table 12c: Cross-tabulation on defaulters and non-defaulters versus lenders' borrower education before obtaining a mortgage

		Did your financier spell out borrower education			Total
		No	Yes	Missing	
Respondents who fell behind in their monthly payments, hence defaulted	Never defaulted	27	5	1	33
	Defaulted	30	31	6	67
	Missing	0	2	2	4
Total		57	38	9	104

Pearson's chi-square value = 22.995 P-value = 0.000

H1: There is no association between the lack of borrower information and a borrower's propensity to default

Value of the chi-square = 22.995 and p-value = 0.000, and since the p-value is less than the 0.05 significant levels, the conclusion is that there is no relationship between lack of borrower information and propensity to default, meaning the probability of non-payment behaviour is not influenced by financier's failure to provide borrower education.

This indicates statistically homeowners' default does not correlate to a lack of borrower education process. This is because those respondents who have defaulted are reported also to have received borrower education

5.4.1 Cross-tabulation findings on Defaulters and non-defaulters versus borrower credit info

Table 13: Cross-tabulation findings on Defaulters and non-defaulters versus borrower credit info

		Borrower credit information on mortgage contract			Total
		No	Yes	Missing	
Borrowers who fell behind in their monthly payments, hence defaulted	Never defaulted(No)	4	25	4	33
	Defaulted(Yes)	21	38	8	67
	Missing	2	1	1	4
Total		27	64	13	104

Pearson's chi-square value = 6.798 P-value = 0.147

H2: There is no association between borrower credit information and propensity to default.

The Pearson chi-square value = 6.798 and corresponding significance (p-value=0.147). This suggests that that there is no association between borrower credit information and his or her propensity to default. This means that whether one defaults or not is not related to whether the borrowers' financier or lender through brochures information informed them about their mortgage contracts or not.

5.4.2 Cross-tabulation findings on propensity to default versus total monthly income of borrower

Table 14: Cross-tabulation findings on propensity to default versus total monthly income of borrower

	Total monthly household income					Total
	R500- R2K	R2K- R4.5K	R4.5K- R7K	R7K- R12K	Over 12K	
Never defaulted	3	8	14	8	0	33
Defaulted	1	5	27	34	0	67
Missing	0	0	2	1	1	4
Total	4	13	43	43	1	104

Pearson's chi-square value = 38.104 P-value = 0.000

H3: There is no association between the lowest income segments of the population's total income of a borrower's household and propensity to default.

Propensity to default as demonstrated in the table above was higher amongst the upper income segments of the respondents and not the lowest income categories.

As depicted from the table, from the Pearson Chi-square value = 38.104 and P-value = 0.000, the indication is that the total household monthly income of the borrower is no associated with his or her propensity to default. This means that borrowers' tendency for non-payment behaviour is not associated with household occupying the bottom segment of the income pyramid.

The findings actually reveal that those who are in the upper income segments (R7 000-R12 000) of the classified income groups have more default probabilities than those in the lower end of the income category.

The rejection of the hypothetical statement emphasise the notion that it is not the lowest income segments in the housing market that are prone to defaults but high-net worth borrowers are in fact susceptible to non-payment behaviour.

5.4.3 Cross-tabulation findings on propensity to default versus educational level of borrower

	Education level of borrower					Missing	Total
	Primary	Matric	Secondary	DiplomaDegree	Other		
Never defaulted	1	9	4	18	1	0	33
Defaulted	0	31	2	29	2	3	67
missing	0	1	0	2	1	0	4
Total	1	41	6	49	4	3	104

Pearson Chi-square value = 14.933 P-value = 0.135

H4: There is no correlation between the education level of the respondent and his or her default behaviour

With the Chi-square value = 14.933 and p-value = 0.135 the finding is that a borrower's education level is independent of his or her tendency to default. In other words, it does not matter which education level the borrower has attained: defaulting or not defaulting is not determined by the level of education of the borrower.

The empirical data confirmed that the borrower's formal education level is independent of his or her tendency to default. In other words, it does not matter which education level the borrower has attained: defaulting or not defaulting is not determined by the level of education of the borrower. Empirical findings showed that a borrower's education level is independent of his or her propensity to default.

In other words, the tendency to default on mortgage payment is not related to level of education. In non-payment behaviour it was found that non-

payment by households with low education levels was not as high as those of households who have attained some of the highest qualifications (degree, diploma).

Of those who defaulted, 17.3% had degrees and diplomas. While those with only matric qualifications comprised 8.6% of the non-payment ratio and those with primary education consisted merely 0.9%. This evidence demonstrates that the higher the formal qualifications attained, the greater are chances to non-payment behavior of mortgage loans by households.

5.4.4 Cross-tabulation findings on gender in relation to default behaviour

Table 16: Cross-tabulation findings on gender in relation to default behaviour

		Sex of respondent			Total
		Female	Male	Missing	
Respondents who fell behind in their monthly payments, hence defaulted	Never defaulted	13	20	0	33
	Defaulted	24	42	1	67
	Missing	1	3	0	4
Total		38	65	1	104

Pearson Chi-square value = 0.900

P-value = 0.925

H5: There is a no relationship between the gender of the respondent and his or her tendency to default

The Pearson Chi-square = 0.900 and p-value = 0.925 denotes that the gender of a respondent has no association with his or her tendency to default. This means that defaulting behaviour is not influenced by the gender of the respondent; both males and females have an equal probability of exhibiting non-payment behaviour.

5.4.5 Cross-tabulation findings on age in relation to default behaviour

Table 17: Cross-tabulation findings on age in relation to default behaviour

	Age group of respondent					
	25-35	35-45	45-55	Over 55	missing	Total
Never defaulted	4	17	11	1	0	33
Defaulted	5	30	21	10	1	67
Missing	0	2	1	1	0	4
Total	9	49	33	12	1	104

Pearson Chi-square value = 5.139 P-value = 0.743

H6: There is no relationship between age (young adults aged 18-35) and propensity to default

Observing the Chi-square value = 5.139 and its corresponding probability value = 0.743, the concluding statement is that there is no relationship between those aged 18-35 classified as young adult and susceptibility to default. Statistics reveal that the premise that young adults at risk to non-payment behaviour is empirically inaccurate.

The data has in fact shown (see table 17 above) that it is actually the adults aged 35-45 and those aged 45-55 who are vulnerable to mortgage default. Cumulatively, this age category (35-55) represented a default rate

of 49% against those aged 18-35 that comprised a mere 5% default rate. The finding invalidates the notion that young adults are at risk of demonstrating non-payment behaviour.

5.4.6 Cross-tabulation findings on interest rates in relation to default behaviour

Table 18: Cross-tabulation findings on interest rates in relation to default behaviour

		Interest rate	Customers who fell below in their monthly payments, hence defaulted
Interest rate	Pearson Correlation	1	-.059
	Sig. (2-tailed)		.551
	N	103	103
Respondents who fell behind in their monthly payments, hence defaulted	Pearson Correlation	-.059	1
	Sig. (2-tailed)	.551	
	N	103	104

H7: There is no correlation between interest rates and default behaviour

Since interest rate is a continuous variable, a correlation analysis was performed. We focused on the cell with 3 values, -0.059 which is the correlation coefficient, and 0.551 which is the significance. That is, significance means that we would expect a correlation of this magnitude purely due to chance factors rather than the actual relation. And 103 is the number of observations. The correlation between interest rate and a borrower's tendency to default was found to be non-existent.

Interestingly, this was despite existing literature confirming such a correlation and the perceived general market overview. This assumption could not be validated empirically from the sampled population. The

statistics however provided a significant factor that we would expect the correlation of this magnitude due to the probability factor rather than the actual relationship.

Variables such as low economic growth (in GDP), increases in electricity and fuel, tariffs, property rates and taxes as well as other administered price hikes, elevate inflation and that translates into interest rate increases. Homeowners with variable rate mortgages get exposed to inflation risks through increases in repayments.

The disempowered borrower defaults as a result of increases in loan repayments due to rising mortgage rates, a view empirically verified by the number of homeowners who decided to discontinue paying their mortgages due to increases in repayments. It was, however, not clear whether this was as a result of interest rate increases as borrowers remain uninformed of the impact of such economic variables

5.4.7 Cross-tabulation findings on borrower-lender relations in relation to default behaviour

Table 19: Cross-tabulation findings on borrower-lender relations in relation to default behaviour

	Age group of respondent					
	25-35	35-45	45-55	Over 55	missing	Total
Never defaulted	4	17	11	1	0	33
Defaulted	5	30	21	10	1	67
Missing	0	2	1	1	0	4
Total	9	49	33	12	1	104

Pearson Chi-square value = 26.306 P-value = 0.001

H8: There is a correlation between borrowers-lender relations and default behaviour

Since Pearson Chi-square value = 26.306 and p-value = 0.001, it was found that there is a relationship between borrower-lender relations and default behaviour.

The proposition was validated by the empirical findings of this study. The findings show the existence of the relationship between the borrower's rapport with the lender and his or her propensity to default. The statistics suggest that those who have poor relationship with lender and have never defaulted constituted a mere 0.96%.

In contrast, those who defaulted and were exposed to poor relationship with lender represented 19.2%. Meaning, the 'poorer' the relationship, the higher is the default probability ratio. This confirms the premise that the poorer the relationship between the lender and the borrower, the higher is the borrower tendency to default. Further, the statistics show that 19% of those who enjoy good relationship with their lenders have never defaulted; while 14% of those reported to have a good relationship with lender have defaulted. This reflects a positive statistical margin of 5%.

This substantiates that there exists a correlation between the level of relationship between the lender and the borrower susceptibility to defaults. In other words, non-payment behaviour of homeowners is influenced by the type of relationship that exists between the lender and the borrower. The relationship between a borrower and the financier defines the borrower's propensity to default or not to default. This notion validates the theoretical supposition that the risk of default is embedded in the actual type of relationship present; the poorer the rapport, the greater the non-payment prospect.

5.5 Logistic regression discussion

Primarily, it is necessary to point out the vitality of the sample size in research surveys dealing with correlation of variables. This is particularly important for establishing the relationship between the two variables which can be constrained by the size of the sample. It is argued that the probability of signifying a relationship in variables is higher to larger

sample population than to a small sample. The total number of all houses in Protea Glen to which respondents were attached totalled 17 138, with 13 133 of which were still mortgaged, represented a total of proportion of 77% of the suburb. A total of 150 questionnaires were prepared and administered. Of the 150 questionnaires, 104 questionnaires (104/150) were satisfactorily responded to, and thus making up a response rate of 70%, meaning that for every 10 questionnaires administered, 7 were acceptably responded to.

The reasons attributable to sample restraints were clarified in Chapter 4, Section: 4.15.1 (Sample size limitations). Drawing attention to the issue of sample size and ascertaining the odds of the association of two variables, Bohrnstedt et al. (1988) states that the probability of observing an outcome in a sample of observations suggesting that a relationship exists is much greater in larger samples compared to smaller samples. With larger sample sizes, the issue of the practical worth of the correlation becomes increasingly relevant (Meyers et al. 2006: 115).

The correlation or relationship strengths or weaknesses of variables can be validated through the regression measurement model. Fox illustrated that if the relationship is strong, then cases cluster closely about the regression line. If there is no relationship, then cases are randomly distributed and thus dispersed from the regression line (Fox 1998: 238-239). To check for model stability, cross-tabulations between categorical predictors and the outcome variable were done through a logistics regression model.

It should be noted that only predictor variables that were found statistically significant at the bivariate analysis level were considered. Regarding the issue of predictor variables, Bohrnstedt and Knoke state that a basic reason for bringing additional variables into the analysis of the relationship between an independent and a dependent variable is to clarify the true relationship between them (Bohrnstedt & Knoke 1988). "For causal relationships to be present among a pair of variables there must be co-variation between the independent and dependent variable" (Bohrnstedt & Knoke 1988: 433).

The mathematical basis of the principle in which the prospect of finding a correlation exists but could not be established from the population data but through cross tabulation analysis as represented above was substantiated by Fox (1998), “as a practicable statistical phenomenon” (Fox 1998: 135).

According to Fox (1998) the probability that a relationship found in a sample data occurs by chance even if there is no relationship in the population sampled. “This is called the level of statistical significance, or just significance level” (Fox 1998: 135). Significance level is expressed as a number ranging from 0 to 1.00 (ibid). That is a conventional way of expressing probabilities (ibid). A probability indicates the odds or chance of something happening, in this case the odds of finding a sample relationship even if there is no population relationship (ibid).

Abdalla and Habil state that some researchers randomly split their sample data, conduct separate analyses for the two subgroups, and then subjectively compare the results to determine if they appear to be similar (Abdalla and Habil 2002). Landwehr’s (2003) study, however, revealed that a better way to use regression for classification tasks is to use a logistic regression model that reflects the posterior class probabilities using linear functions.

Regarding the functional determinant of logistic regression, Meyers et al. (2006) established that logistic regression uses a set of independent variables in combination to predict the value of a dependent variable. In regression, where correlation is measured, Meyers et al. (2006) claims that the most widely used bivariate correlation statistic is the Pearson product-moment coefficient commonly called the Pearson correlation.

To this end, the logistics regression model had been possible for this particular analysis which is sometimes referred to as the logit model. Suggesting that association amongst variables was reported present because their corresponding p-values were less than 5% since 5% was the significant level considered.

Since the use of the model was for measuring a binary or dichotomous outcome and was functional in terms of detecting and circumventing the

generation of errors (residuals). Such errors, Long (1997) explains, violate the normality error assumptions of OLS regression, resulting in invalid standard errors and hypothesis tests.

5.5.1 Logistic regression model specifying variable relationships

The logistic model was the preferred as the former generates errors (residuals) which violate normality error assumptions that could result in invalid standard errors and hypothesis tests.

This model predicts the outcome variable propensity to default or non-payment behaviour, using borrower education (SC18), borrower's relationship with the lender, (D29), and borrowers' total household income per month (HhIncome). All the predictor variables are categorical rather than continuous.

The categorical predictor variables were handled in terms of dummy variables in the model. During statistical interpretation, one of the categories was dropped and used as the base category for the entire logistic output.

Model fit

Table 5.5.1 Omnibus Tests of Model

Coefficients

	Chi-square	df	Sig.
Step 1 Step	36.858	7	.000
Block	36.858	7	.000
Model	36.858	7	.000

The table above gives the overall test for the model that includes the predictors. The chi-square value of 36.9 with a p-value of less than 0.05 tells us that our model as a whole fits the significantly better than the empty model (that is a model with no predictors) for such a model which is labelled variables not in the equation.

Table 5.5.2 Variables in the Model

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a HhINCOME			.542	3	.910	
HhINCOME(1)	-19.404	7465.936	.000	1	.998	.000
HhINCOME(2)	-.555	.857	.419	1	.517	.574
HhINCOME(3)	-.403	.647	.388	1	.534	.668
SC18(1)	-1.237	.628	3.884	1	.049	.290
D29			2.697	3	.441	
D29(1)	37.303	10765.490	.000	1	.997	1.587E16
D29(2)	1.311	.917	2.043	1	.153	3.711
D29(3)	-.175	.635	.076	1	.783	.839
Constant	1.251	.721	3.010	1	.083	3.493

a. Variable(s) entered on step 1: HhINCOME, SC18, and D29.

B- represents the slope coefficient, but interpreted as log odds in the logistic regression model. S.E is the standard error, Wald test. This is equivalent to the t-test, it tests whether the slope coefft (B) is statistically different from zero, here care should be focused on the null hypothesis relating to its use. df-degrees of freedom, or the number of independent variables in the model. Exp(B) is the expected slope coefficient.

The above model contained coefficients, their standard errors, the Wald test statistics with associated degrees of freedom and p-values, and the exponential coefficient or odds ratios. Both household income and borrower relationship with the lender are statistically not significant, but provision of education to borrowers has underlying statistically significance. The logistic regression coefficients give the change in the log odds of the outcome for a one unit increase in the predictor variable.

Total household Income (HhINCOME)

Having a total household income in the category labelled 1, versus a total household income in category the labelled 0, decreases the log odds of defaulting by -19.404.

Having a total household income in the category labelled 2, versus a total household income in the category labelled 0, decreases the log odds of defaulting by -0.555.

Having a total household income in the category labelled 3, versus total a household income in category labelled 0, decreases the log odds of defaulting by -0.403.

Borrower education training (SC18)

A borrower who receives borrower education and training, SC18 (1), versus one who does not receive training, SC18 (0), has his or her log odds of defaulting decreased by -1.237.

Borrower's relationship or rapport with lender

A borrower who has a fair rapport, D29 (1), with his or her lender has his or her log odds of defaulting increased by 37.303.

A borrower who has a good rapport, D29 (2), with his or her lender has his or her log odds of defaulting increased by 1.311, while a borrower who has a very good rapport, D29 (3), with his or her lender has his or her log odds of defaulting decreased by -0.175.

To check for model stability, cross-tabulations between categorical predictors and the outcome variables were done. Establishing the correlation meant that the dependent variable measured in the logistic model was essential for variables that do not appear in the analysis sub-group, viz. relationship between non-payment and borrower education, an existence of the relationship on the basis of the relationship between the lender and the borrower. Furthermore, it was established through the logistic model whether there was any association between increases in interest rates and respondents' probability to default and this was tested

and presented. Hence, logistics measured single variables and interactions among variables that had independent effects in this study.

Cross-tabulation of the predictor variables included borrower information through training (SC18), borrower relationship with financiers (D29), and borrowers' total household income per month (HhIncome). All these variables indicated sufficient number of counts per cell. Hence, model stability was guaranteed on running the binary logistic regression model.

5.6 Qualitative analysis

5.6.1 Lender/financier findings on borrower education programmes

Employing the descriptive analysis technique, the findings revealed the following:

5.6.2 Showing findings on named banks

All of South Africa's mainstream banks were the respondents and their lending to the end-user (respondents) was 100%. Meaning all homeowners mortgaged properties were financed by the big four banks. Only one bank (Standard Bank) did not respond to the questionnaire, providing no reasons for its non-participation.

- First National Bank;
- Nedbank; and
- Absa bank.

5.6.3 Findings on borrower education offerings

- All three banks (FNB, Nedbank and Absa) offer borrower education programmes to home loan borrowers.
- None of the banks have provided samples of their borrower education programmes as it is considered privileged information.

- Borrower education is offered through information brochures, internet information and personal engagement by bank personnel.

5.6.4 Findings on when borrower education was introduced by banks

- Absa started offering borrower education in 2004.
- FNB introduced borrower education in 2007.
- Nedbank did not specify when they started offering borrower education.

5.6.5 Findings on reasons for introducing borrower education to targeted households

- Nedbank stated that their introduction of borrower education was in order to comply with NCA requirements.
- Furthermore, Nedbank indicated that it was intended to ensure that borrowers are aware of their homeownership rights and responsibilities.
- Absa cited their offering was largely being due to the necessity of meeting the Financial Sector Charter (FSC) requirements.
- FNB's borrower education is intended to empower homeowners regarding their obligations.
- All three banks' borrower education is targeted at those households with earnings of up to R15 000 a month.
- This was fitting as the study concentrated only to low income home owners whose household earnings was just over R12000.00 per month.

- Borrower education is offered through one-on-one engagements, as well as written and electronic information.

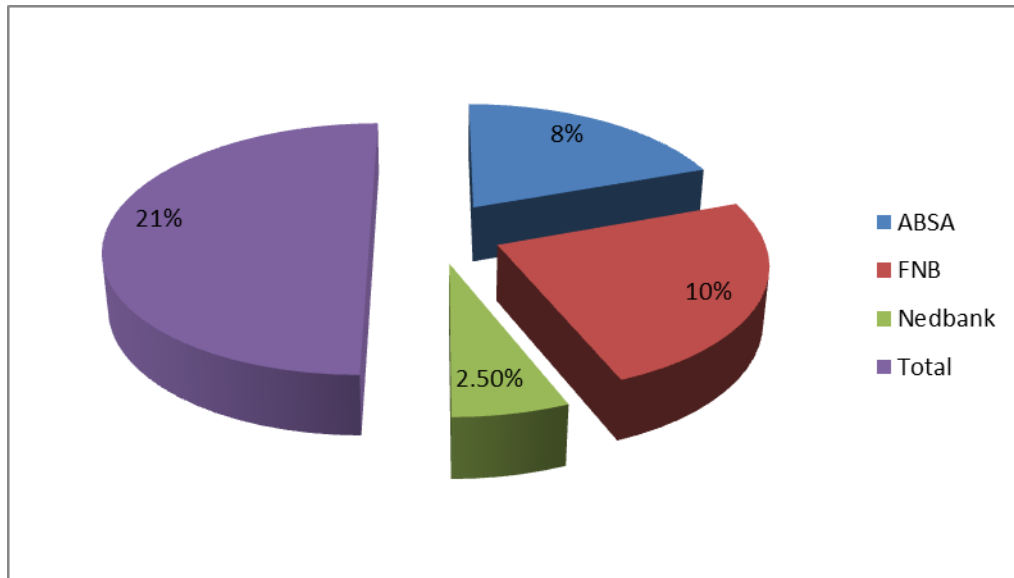
5.6.6 Findings on the relationship between banks' home loan defaults and borrower education

- All three banks confirmed that there is a relationship between non-payment and borrower education.
- Absa reported an 8% home loan default ratio.
- FNB reported a 10% home loan default ratio.
- Nedbank reported that only 2.5% of its home loans were in arrears.
- Accordingly, the banks mentioned that they were in the process of revising their borrower education content to mitigate non-payment behaviour.

This action seems to demonstrate that banks consider the risk of default behaviour by low income home owners to the actual administering and content of borrower education. The finding that the lack of borrower education is associated with non-payment behaviour was not verified by empirical research though.

However, the banks' concession that there is a need to revise the content of their borrower education programmes is on its own a significant finding. This is particularly because households that defaulted comprised 64% of the total surveyed population, and majority of whom have received borrower education. This could therefore suggest a reasonable inference that the content of borrower education is not concise and informative to empowering borrowers sufficiently.

Figure: 18 Findings on Banks Home Loan Default Rate in 2011



Discussion on banks default rate

Since defaults are central to this study problem statement and objectives, any data that deals with defaults had to be thoroughly examined and have its reliability and validity tested to the core.

The banks national default ratio does not correlate with the empirical statistics indicating that in Protea Glen, the default rate was 64%. The surveyed banks (Absa, FNB and Nedbank) figures on non-payment suggest that their cumulative default rate cumulatively was 21%.

It should be noted that the rationale underpinning this investigation was amongst other factors motivated by the highest levels of repossessions and defaults in Protea Glen as reported by the South African Human Rights Report in 2008. According to report, Nedbank reported non-payment repossession proportions of 10-15%; Absa reported 34%, higher than the national average of 12% respectively.

The First National Bank reported non-payment repossession proportions of 30%, while Standard Bank reported a 10% default rate (SAHRC Report, 2008). It would seem from the empirical evidence that default rate is

understated and underreported by the banks, putting questions of the validity of banks statistics. The banks figures in view of the empirical evidence from this research may not be a true reflection of the state of the market with regard to non-payment.

Perhaps, the banks are not reporting the accurate picture of the market in this regard. The study relied on what the banks provided on the questionnaire and had no reasons to question the validity of the data. The precision of the data that was provided by the banks could not be tested as this was voluntary on their part, the researcher can only experiment the data through comparative analysis; meaning drawing inferences from what emerged from the field data and the one supplied by banks.

What remains evident throughout nonetheless is the recognition banks that current levels of borrower education has fundamental shortcomings that impact on non-payment behaviour negatively. As stated earlier, the application of this method by the researcher demonstrated no inconsistencies. Similarly, the researcher cannot conclusively validate that the banks data is questionable as this study was not conducted nationally but only represents a certain geographic area.

Furthermore it is invaluable to note that Protea Glen as the area under investigation had the highest default rate and much higher than the national average of defaults in South Africa. This is corroborated by the 64% default rate statistics in this location from the empirical data and by the number of properties in possessions. Possibly confirming the banks data rather than questioning it.

5.6.7 Findings on borrower and bank relationship

- The three banks declared that their relationship with borrowers was relatively good.
- All three banks asserted that perceptions that they are unfriendly and insensitive and have little regard for borrowers are misinformed.
- All three banks reported that low income borrowers generally understand the responsibilities associated with homeownership and the on-going costs of owning a house.

5.6.8 Measuring the effectiveness of banks' borrower education

- Nedbank indicated that the effectiveness of their borrower education programmes is measured through the arrears ratio and the repossessions ratio of properties.
- Absa pointed out that customer exercises were used to measure the effectiveness of borrower education.
- FNB asserted that measuring the effectiveness of their borrower education programme is based on the content of the programme that produces an informed borrower through borrower feedback channels.

5.7 Discussion of hypothetical statements

According to Agresti (2002) no one study, regardless of how shrewdly it was designed and how carefully it was executed, can provide convincing support for a causal hypothesis or theoretical statement, due to the many limitations on generality and alternative interpretations that may be offered for any one observation. Moreover, each of the basic methods of research (experimental, correlational, and case study) and techniques of comparison (within- or between-subjects) has intrinsic limitations (Agresti, 2002).

The researcher's main assumption was that there is a relationship between the lack borrower education and non-payment behavior in low

income housing. The underlying assumption was not empirically verified. The statement had an underlying connotation suggesting a certain degree of association that could not be established from the sample data but by means of probability in view of cross-tabulation analysis.

While the data suggested no compelling evidence between non-payment behaviour and the lack of borrower education as even those who received borrower education had defaulted, this finding had thus presented the author with the following arguments from this perspective:

From the lender's findings, banks revealed that they offer borrower education and (this was statistically confirmed by borrowers too) that the defaults by those who have received borrower education can be attributable to weaknesses in banks' content of the borrower education programme. Banks are considering revising the actual content of borrower education, implying weaknesses in the current programme as the banks believed the current borrower education format contributes to their default rate.

Furthermore, banks, by their own admission, confirmed by lender findings, are offering borrower education only as a statutory requirement by the National Credit Regulator (NCR). It is aimed more at conforming to regulatory requirements than to designing programmes intended to educate and empower borrowers adequately. In addition, the lender findings also showed that the affordability factor was the biggest risk and major contributor to non-payment behaviour, highlighting the negative effects that the lack of borrower education has on homeowners.

The three banks (Absa, Standard and Nedbank) reported a cumulative default rate of 21% among low income homeowners. The mortgage debtors appear to not fully comprehend with the methods and contents of banks borrower education as it not concise, specific and targeted. Accordingly, its intended outcome (whilst unclear) could not be attained in the current model.

The findings revealed the existence of the correlation between the borrower's relationship with the lender and his or her propensity to default.

Meaning, susceptibility to default is informed by the type of relationship exists between mortgage debtor and lender. The better the relationship and level of engagement the lower the default probability. Statistical findings revealed that mortgage debtors who enjoyed a 'good' relationship with their financiers were likely not to default while those with poor relationship were at risk of default and non-payment behavior.

Surprisingly the study found that there was no association between interest rate increases and propensity to default despite massive literature corroborating this premise. Even though the refutation of this supposition was the case, statistics provide a significant factor that we would expect the correlation of this magnitude due to the probability factor rather than the actual relationship.

The consequence of non-payment apart from a house being repossessed is a higher risk premium as a result of the compound built-in interest on principal debt. Homeowners with variable rate mortgages get exposed to inflation risks through increases in repayments. I am of the opinion that the sampled population may have a little understanding of the meaning of these financial indices and the financial impact on mortgage repayments, confirming again the importance of educating and empowering borrowers about all aspects of mortgage contracts and home ownership processes.

Lastly, empirical findings also did not support the principle that mortgage debtors with low levels of formal education are prone to non-payment behaviour. The results indicated that a borrower's level of education is independent of his or her propensity to default.

In other words, the tendency to default was not related to low levels of academic training as even those with highest level of formal education were susceptible to non-payment behavior as statistics had revealed.

Hypothesis 1: Borrowers that have received borrower education are less likely to default on their mortgage payments.

This statement was invalidated. The premise only had an underlying connotation suggesting a certain degree of association that could not be established from the sample data but by means of probability in view of cross-tabulation analysis. While the data suggested no compelling evidence between non-payment behaviour and the lack of borrower education, but only a likelihood of statistical significance revealing the extent of correlation.

This is as a result of empirical findings revealing that differentiate between those who defaulted as result of lack of borrower education and those who defaulted even though having received borrower education is quite marginal. This provided me with two sets of arguments from this perspective. Argument one: had there been a bigger sampled population, perhaps the results could have been more convincing, creating a degree of certainty.

Argument two: from the lender's findings, banks revealed that they offer borrower education and (this was statistically confirmed by borrowers too) that the defaults by those who have received borrower education can be attributable to weaknesses in banks' content of the borrower education programme.

Furthermore, banks, by their own admission, confirmed by lender findings, are offering borrower education only as a statutory requirement by the National Credit Regulator (NCR) and the Financial Services Board (FSB). It is aimed more at conforming to regulatory requirements than to designing programmes intended to educate and empower borrowers adequately.

In addition, the lender findings also showed that the affordability factor was the biggest risk and major contributor to non-payment behaviour, highlighting the negative effects that the lack of borrower education has on

homeowners. The three banks (Absa, Standard and Nedbank) reported a cumulative default rate of 21% among low income homeowners.

The formulation of this central hypothesis was informed by findings of some literature reviewed. The importance of borrower education and empowerment towards enabling borrowers was illustrated in Chapter 1 by Campbell and Dietrich (1983) and was later expanded by Monticone (2010) and Buckland (2010), as well as Gerardi et al. (2010).

Huston (2010) advocated a need for developing a standardised approach for measuring the impact of financial literacy. Struyk (1976) and Collins (2007) state, as shown in Chapter 2, that the lack of borrower education for low income homeowners render them more susceptible to defaulting behaviour.

Struyk (1976) and Collins (2007) state that such defaulting households might be at risk of losing their properties. Wachter (1996) was also shown to illustrate the importance of financial literacy and financial knowledge in Chapter 2. Lastly, the issue of qualitative specifically targeted content of borrower education was substantiated by McCarthy and Quercia (2000) in Carswell (2009), as outlined in Chapter 1 of this study.

This was also illustrated by the Township Property Residential Markets (TRPM) findings in 2003: that a lack of borrower knowledge constrains homeowners' understanding of the buying and selling processes, especially low income households living in townships. This was discussed in Chapter 2. This was further corroborated by the Financial Services Board's (FSB) Head of Consumer Education who oversees the conduct of financial institutions with regard to empowering borrowers. This is discussed in Chapter 3, which deals with regulatory systems intended to protect borrowers.

The FSB observed that the current borrower methods offered by banks are ineffective and impact negatively on borrowers and asserts that banks should be more responsible and accountable. The FSB maintains that the banks' borrower education programmes are not coordinated, and that their impact is insignificant. As a result it cannot even be measured easily. The

FSB emphasise a need for increased, focused, neutral, sustained, quality-controlled education which is measured in terms of its benefit to borrowers.

The hypothesis was further supported by the number of sales in execution in the area (Protea Glen) as argued in Chapter 1, which suggests that between 2003 and 2010 of the 13 133 bonded properties a total of 2 905 properties were sales in execution, excluding those who were in the process of being repossessed.

Hypothesis 2: Probability for defaults by homeowners increases when interest rates go up cause increases in mortgage repayments.

Interestingly, despite literature confirming this theoretical supposition, this statement was not empirically established, though this may be due to factors such as smaller home loans, stable inflation options in the mortgage agreement or too small a test group. Even though the rejection of the above hypothesis was the case, statistics provide a significant factor that we would expect the correlation of this magnitude due to chance factors rather than the actual relationship.

The consequence of non-payment apart from a house being repossessed is a higher risk premium as a result of the compound built-in interest on principal debt. As demonstrated in Chapter 2, weakening in variables such as economic growth, increases in electricity and fuel, tariffs, property rates and taxes as well as other administered price hikes elevate inflation and that translates into interest rate increases.

Homeowners with variable rate mortgages get exposed to inflation risks through increases in repayments. The disempowered borrower defaults as a result of increases in loan repayments due to rising mortgage rates, a view empirically verified by the number of homeowners who decided to discontinue paying their mortgages due to increases in repayments. It was, however, not clear whether this was as a result of interest rate increases as borrowers remain uninformed of the impact of such economic variables,

The relationship between interest rates, inflation and non-payment behaviour was established by Hallett (1977) when examining the effects of inflation on a mortgage loan, as discussed in detail in Chapter 2. Also, the correlation was emphasised by Watanabe (1998) and Collins (2007). This supposition was again corroborated by Bucks and Pence (2008), validating that borrowers may benefit from this risk when interest rates fall, as their payments can decrease. The hypothesis was also informed by the (2009) NHFC Market Report findings, as discussed in Chapter 2.

Furthermore, in Chapter 3 it was shown that Ambrose (2000) established the relationship between mortgage default and pricing of the instrument. This statement is supported by Magri and Pico (2011) in their model illustrating how much the interest rate on a mortgage is correlated with the household default risk in Chapter 2. The argument correlating non-payment behaviour and increased interest rates was further explored by Devpruth (2011) and discussed in Chapter 2.

I am of the opinion that the sampled population may have a little understanding of the meaning of these financial indices and the financial impact on mortgage repayments, confirming again the importance of educating and empowering borrowers about all aspects of mortgage contracts and home ownership.

Hypothesis 3: Households with high levels of formal education are unlikely to exhibit non-payment behaviour on their mortgage loans.

The rejection of this statement was proven by the results of the empirical data. Empirical findings showed that a borrower's education level is independent of his or her propensity to default. In other words, the tendency to default on payment is not related to level of education. In non-payment behaviour it was found that non-payment by households with low education levels was equally as high as those from households who have attained some of the highest qualifications (degree, diploma). Of those who defaulted, 17.3% had degrees and diplomas, those with only matric qualifications constituted 8.6% while those with primary education comprised 0.9%.

This means that educational levels are independent of the borrower's propensity to default. Thus we conclude the non-existence of a relationship between these two measured variables, despite theoretical underpinnings for this hypothesis by, for example, Huston (2010) who argues that higher education levels are associated with more financial knowledge, probably because individuals with more general education experience less difficulty acquiring financial knowledge and therefore incur lower learning costs.

This was also explained in Chapter 2 (HUD 1995), when it was suggested that the relationship between education level and the propensity to default does in fact exist. This is substantiated by Martin (2007) who emphasises the impact of education on all borrowing decisions, even the most complex. The correlation between education and behaviour was argued for by Du Plessis et al. (1990) and is explained in detail in Chapter 2. Friedman (1998) and Haid (2003) furthers the theory by discussing voter education and its influence on behaviour, illustrating how knowledge contributes to positive attitudes and behaviour among citizens.

Hypothesis 4: The probability of non-payment behaviours by households with mortgage loans is lower for those in higher income brackets.

The statement was not supported by the empirical findings. The findings revealed that there is no correlation between total household income and propensity to default. This suggests that when the borrower defaults, his/her household income is not one of the variables that the default is linked to. The highest segment income groups of low income earners were more likely to default while the lowest income households were the least susceptible to defaults. The findings' breakdown on defaults by income indicate that those earning R7 001 - R12 000 per month have the highest default rate of 33% while those earning R2 000 - R4 500 had the lowest default rate, which stands at 5% and those households with a total monthly income of R4 501 - R7 000 had a default rate of 13%.

The assumptions of this statement were informed by Schorr (1964) in his findings that low income families find it more difficult to adjust payment for shelter than it would be for those who have a larger income. Aboutorabi (2000) argued that low income households allocate less than 20% of their budget for housing loans, a view elucidated by the Social Survey (2003) report that demonstrated that expenditure on home loans was low on the lowest income segments with only 23% of household budget allocated to servicing mortgage loans.

This was discussed under the section of household income and expenditure in Chapter 3. Furthermore, research by the Housing and Urban Development Foundation (1995), under the household income and expenditure section, indicated that default risk is higher among black and lower income borrowers. This is a view reinforced by Collins (2007) as discussed in Chapter 3.

Hypothesis 5: A poor relationship (lack of rapport) between the bank or (lender) and the borrower (homeowner) increases probability of default.

The hypothesis was validated by the findings of this study. The findings show the existence of the relationship between the borrower's rapport with the lender and his or her propensity to default.

Those who have a good relationship with the lender constituted a default rate of 14.5% while those with very good relationship comprised only 10%. This was also evident from the analysis of the theory discussed in Chapter 3, in the section dealing with borrowers' perception of the banks. The 2003 Social Survey findings reveal that potential homeowners did not even approach banks about obtaining a mortgage because of their distrust of banks and considered them unfriendly.

The 2011 Global Consumer Banking Survey, as discussed in Chapter 3, substantiated this when the report suggested a need for banks to reconnect with their customer base by improving the customer experience. The report illustrated a considerable need for banks to improve on the

levels of channel efficiency, customer service, personalisation and integration.

Hypothesis 6: Young adults (homeowners aged 18-35) are more susceptible to non-payment behaviour on their mortgage loans than middle aged (homeowners of 35-50) when under financial pressure due to financial over-commitment and indebtedness

This hypothesis was rejected by the empirical findings. The study found that there is no relationship between the age group of the homeowner and propensity to default. Susceptibility to non-payment behaviour of mortgage loans was not proved to be more prevalent among young adult homeowners.

Thus, being a young adult homeowner and the propensity to default are independent variables. The study found that the majority of mortgage defaulters were to be found in households aged 35-45, representing 28.8% of the total, followed by households aged 45-55 that comprised 20.1% of the default rate. Households aged over 55 years had a default rate comprising 9.6% while young adult households aged 25-35 proved to have the lowest default rate of a mere 4.8%.

The statement was founded on the work of Reichenberger (2008) and his assertion that that young adults aged 21-34 years were more prone to default on mortgage payments. This was supported by a study conducted by the Pew Research Centre on Social and Demographic Trends, as contained in the 2010 US Survey Report.

Furthermore, susceptibility to non-payment behaviour by young adults was substantiated by Dryburgh (2011) in his statements that young people, due to their impaired mortgage repayment records and due lack of affordability are now increasingly opting to live with their parents. This was discussed under the cost of ownership and borrower behaviour in Chapter 2.

5.8 Conclusion

This study investigated the relationship between the lack of borrower education and non-payment behaviour with particular reference to low income homeowners in South Africa: A Case Study of Protea Glen, Johannesburg.

This study did not confirm the central hypothesis that the lack of borrower contribute to non-payment behaviour. The findings did illustrate that borrower education is an important component in low income households and that if it is targeted to the needs of such households, its may lead to a lower default behaviour. The study model proposed that such homeowners understand the cost of ownership. The model also suggested that lenders who offer sound and informative borrower education are likely to have good relationships with their borrowers who understand their roles and responsibilities.

CHAPTER 6

Recommendations, areas for future research and conclusion

6.1 Introduction

In drawing up recommendations, concluding remarks and areas for future research it is necessary to reflect on key aspects of borrower education and non-payment behaviour in low income homeowners in South Africa. The aim of this study has been to examine and ascertain the relationship between borrower education (as an independent variable) and the propensity for default behaviour (as the dependent variable) on home-loans. In other words, the study sought to establish the importance of borrower empowerment programmes by lenders and undertook a case study of the Protea Glen Township in Soweto. This research provides empirical evidence with regards to the conduct of lenders as well as the financial behaviour of borrowers. The findings of this research should be viewed accordingly and recommendations should be considered as essential intervening mechanisms rather than final solutions.

In assessing the probability of defaulting risk as a result of lack of a borrower education, it became necessary to observe demographic and economic variables linked to non-payment behaviour. The measured demographic variables of the respondents were: gender, age, marital status and education levels. The measured economic variables of the respondents included employment status, duration of current employment, monthly household income and interest rates. Empirical findings of all these variables were presented, substantiated, interpreted and discussed.

6.2 Recommendations

This study described and substantiated arguments to establish the underlying reasons for non-payment behaviour. The empirical evidence revealed that there is a weakness in borrower education programmes especially the content as non-payment behaviour even though households reported to have received borrower education. This is indicative of structural weaknesses and lack of appetite for greater positive outcome in empowering households and educating homeowners about rights and corresponding ownership responsibilities.

Accordingly, it becomes apparent that models and structures need to be redefined and that restructuring should be designed ideally to respond to the context of the prevailing problem statement as the evidence will form part of mitigating factors for remedying the problems. Furthermore, this will assist in contributing strategies and interventions aimed at addressing the challenge. Consequently, the following recommendations are proposed in response to the classified challenges:

6.2.1 Devising rich content and targeted borrower education programmes for homeowners a catalyst

The significance of devising targeted borrower education programmes was validated by the research findings confirming that the propensity to default was related to households' monthly income. This was also affirmed by the Financial Services Board (FSB) which oversees, amongst other things, the empowerment of banks' clients. The FSB's observation is that the current borrower methods offered by banks are ineffective and that banks should be held more responsible and accountable.

This was substantiated by the data reflecting the number of sales in execution in Protea Glen. The statistics showed that between 2003 and 2010 the number of sales in execution in Protea Glen were 2 905. The type of borrower education designed should first and foremost be targeted at the right audience and ensure that cooperation, partnership and

relationship building is promoted. The lenders should provide guidelines and the material value of the programmes should be standardised, appropriate, consistent, informative and educational to borrowers. Thus, the type of borrower education that should be developed has to ensure that the information includes both generic and specific housing finance information.

The effectiveness of targeted borrower education programmes will enable borrowers and prospective homeowners to make informed choices about their purchasing decisions and also provide clear understanding of their roles and obligations as homeowners in the post-purchase phase. In addition, a targeted borrower education programme will empower the borrower on various aspects, *vis-à-vis* self-assessment on affordability criteria, loan borrowing conditions, the role of banks, mortgage originators, estate agents, the role of lawyers in mortgage finance, budgeting and insurance product skills, type of tenure options available and so on.

6.2.2 Design programmes aligned to borrower requirements

The literature survey revealed that homeowners make irrational financial decisions when not presented with appropriate advice and relevant information. Creativeness and innovativeness in borrower education programmes that are focused and concentrated on the borrower market need to fill the current information gaps in a way that makes this information readily accessible to all kinds of borrowers, including non-literate ones.

The lender findings found that banks are offering borrower education to fulfil legislative requirements, namely the National Credit Regulator's (NCR) and the Financial Services (FSC) Charter's prescriptions. Borrower programmes should be devised with the main objective of empowering the borrower to become an informed homeowner. This was substantiated by the findings of the study showing that the number of instituted judgments and large number of sales in execution in Protea Glen. In devising appropriate programmes, banks should ensure that the programmes are aimed at achieving broader and deeper outreach of the targeted

households and specifically for low income borrowers. The value of aligned and targeted programmes was also confirmed through expert interviews with regulators. The Financial Services Board (FSB) stated that current programmes require adjustment and informative content as the current frameworks are not designed to empower borrowers.

6.2.3 Impact monitoring and assessment processes are vital for accomplishing the desired impact

The lender findings revealed weaknesses in measuring the effectiveness of borrower education programmes. This is substantiated by Nedbank's measure of borrower education programmes which is mainly through arrears ratios and repossessions. Findings on Absa and FNB indicated that borrower education usefulness is evaluated through customer exercises.

For any desired positive impact, good measurement of the effectiveness of borrower education initiatives is necessary. Designing an evaluation framework that provides guidance and relevant channels for collecting information about the objectives of the programme, its development, delivery, usefulness, impact, and accountability is essential. It is apparent that little assessment is being carried out by banks at present.

In cases where they are offered, their competencies remain inadequate. Proper impact assessments techniques would assist, amongst other things, in quantifying the response rate to invitations, number of participants, satisfaction scale measurement with programmes, identifying any specific behavioural changes as result of the programmes and also, in general, assisting in discovering and recognising problems.

It is critical for the lender to adequately assess whether borrowers have demonstrated knowledge, skills and applied competence with regards to the training. This is expected to assist the lender in establishing the existing gaps and the desired learning outcomes. Furthermore, by engaging in this process the lender will establish if the content of the programme is of benefit to the borrower, if imparted information is clearly

understood, if the designed and applied methodology is explicit, if the programme enhances a flawless approach, verifies the significance of the programme and its practical limitations and ascertain that the content of the programme is as comprehensive as possible. In summary, monitoring and assessment mechanisms will measure the success that the programme has on borrowers, will determine the programme effectiveness and efficiency and, lastly, will quantify the short, medium and long term impacts and benefits that the programme has on both borrowers and lenders.

6.2.4 Building a rapport and strengthening relationships between borrowers and lenders

The data suggests that a poor relationship between lenders and borrowers contribute to non-payment, and since this is confirmed by literature on the subject there seems to undoubtedly be a need for more effective communication and greater participation strategies, as well as interventions for facilitating relationships. Banks have become more customer-centric across the board and in particular in the mortgage finance portfolio.

As deduced from the findings, there is a considerable need to build and improve relationships between lenders and borrowers, and lenders should be the primary drivers of the process. The envisioned results will offer benefits to both the lender and the borrower. This will be in the form of openness, trustworthiness, positive attitudes and accepting responsibility. Borrowers will therefore be fully aware of and willing to accept their responsibilities and duties, thereby reducing the level of non-payment behaviour.

6.2.5 Building banks' staff capacity is paramount

In building relationships, the principal drivers are people employed by the banks who interface with both existing and aspirant borrowers. The issue of non-payment behaviour, as is evident from the findings, is underpinned by poor relationships between the bank and the homeowner. In essence,

the banks are seen as the servicer, the bank employees are expected to provide financial and technical services, and the homeowner is the borrower or customer receiving that service. This is indicative of peoples' skills pre-requisites when dealing with customers. Now that the underlying causes of the problem have been established, it is an important to address these wholly and not superficially.

Good relationship between the bank and the borrower is essential and building and enhancing banks' staff capacity creates a more welcoming face for banks, and banks become more efficient. As a result, the bank will have a happy borrower that values the lender and fully understand his/her rights and his/her corresponding obligations. This will improve participation, behaviour, perceptions and attitudes. This will enable borrowers to make informed purchasing choices that are likely to lead the household into a better financial position and improvement in financial behaviour.

6.3 Established areas for future research

Given the nature and scope of the work, it was imperative to narrow our work down according to the problem statements and established objectives. Consequently, during the examination and analysis of theoretical literature and analysis of empirical data it emerged that research gaps potentially exist.

The identified gaps can thus be conceptualised and approaches developed for future investigation. Significantly, it became apparent from the empirical data that historical perspectives on financial institutions by households in describing their non-payment behaviour remain largely open to reflection. Their perspective on causes of defaulting is attributed to actions of the banks that are motivated by a desire to trap borrowers into continuing to default by increasing their monthly instalments so that the financial institutions can repossess and sell borrowers' properties to their close associates when they default. They now want their houses to be taken back by the banks and be given free BNG houses.

As a result, an opportunity for further research exists. It will be worthwhile to establish the overriding purpose. Could it be that the houses provided generously by the government are now considered by low income households as a substitute for an entry level small, affordable but mortgaged house? A typical house is described by both Absa and NHFC as a house priced at up to R400 000 and measured at 40m²-79m². Or is there any other reasoning for supposedly rationalising such behaviours and actions?

Furthermore, the study could not establish the rationale that non-payment behaviour or propensity to default was independent of interest rate increases, despite the fact that the literature on the subject reveals an association between non-payment behaviour and increases in interest rates. The question is: are low income homeowners adequately equipped to understand the impact of financial indices like inflation and interest rates relative to mortgage repayments? Are they choosing fixed rates over floating rates hence no relationship effect? Are low income borrowers acquainted satisfactorily to financial indices? Also, my test group may have been too small to reveal this link.

These are the areas identified for further empirical investigation.

6.4 Concluding remarks

The findings of this study come at a time of considerable uncertainty in global financial markets, a period which the IMF has described as the “largest financial shock since Great Depression”. Also, my data revealed that non-payment behaviour of low income households was not due to the lack of borrower education. This investigation was largely motivated by the high level of evictions and repossessions for the non-payment of mortgages in the area of Protea Glen, Johannesburg, as reported by the SA Human Rights Commission Inquiry in 2008.

The report shows that in the area banks had higher levels of default than in any other area. The rationale was further founded on the underlying fact that the big four banks account for ninety four per cent (94%) of the total

home loan market share in South Africa. Only 6% is shared by other role-players. All the respondents' houses were financed by the big four banks.

Accordingly, understanding the underlying causes for default behaviour is paramount. The findings revealed a lot more about the importance of borrower education in empowering borrowers. There appears to be a lot of challenges in this respect, especially in view of non-payment behaviour and lender conduct as well as a lack of connection between the lender and the borrower. Important to consider is a need for a qualitative borrower education aimed at empowering the borrowers. Collins and O'Rourke (2011) revealed that policy makers have also increasingly turned to homebuyer education and counselling as a means to foster successful homeownership and to assist borrowers who are struggling to keep up with their monthly mortgage payments.

Accordingly, in addressing the discovered problem statements, the investigation proposed mitigating techniques, alternative models and strategic interventions to remedy the challenges.

It would seem that new solutions are needed based on a variety of intervention strategies, as has been demonstrated. The study also emphasised the essential role of government intervention to effectively regulate market operations for protecting borrowers.

Other noteworthy factors that are envisaged to contribute towards the effective functioning of borrower education programmes included the enhancing capacities of banks, devising borrower education programmes by banks that are finely tuned to borrower requirements – (building and reinforcing relationships between banks and borrowers) and, ensuring the greater positive impact on borrower empowerment programmes through proper monitoring and assessment processes.

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ANNEXURE A

End user questionnaire

QUESTIONNAIRE NUMBER	

Hello!

My name is Vuyisani Moss.

I am a student at Wits University- School of Town and Regional Planning. I am conducting some research about homeownership, lender education relative to repayment issues. I therefore would like to ask you some questions.

Your answers will be confidential. People who look at all the answers will not see who they are from as your name is not even important to us for this investigation. Your answers will be put together with many of other people who are being interviewed.

All the data and information here will be classified and treated in strict confidence. Should you wish at any stage of this interview to withdraw, kindly feel free to do so. Also, if you feel some of the questions are too personal and sensitive, it is upon you to exercise any discretion.

There are no right or wrong answers. Your open and honest opinion is very important to us.

If you do not understand a question, please let me know so that we can simplify for ease of reference.

Thanking you in advance

SECTION A: FILTER QUESTIONS

- | | | | |
|-----------|---|-----|----|
| 1a | Is this property still bonded or owned by the financial institution? | YES | NO |
| 1b | Is there anyone in this house responsible for monthly bond payments or the owner? | YES | NO |

If YES to either (1a) or (1b), ask: Can I speak to that person, if not now later?

If NO to both questions, close interview.

SECTION B. DEMOGRAPHIC SCALE.

INSTRUCTIONS: Please tick appropriate box

Sex

Male		Female	
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Age Group

18-25		25-35		35-45		45-55		>55	
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Marital Status

Married		Single		Divorced		Widowed		Living with Partner	
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Employment Sector

Government		Private		Informal		Unemployed		Pensioner	
------------	--	---------	--	----------	--	------------	--	-----------	--

Type of Work

Mining		Manufacturing		Financial & Retail		Domestic		Other	
--------	--	---------------	--	--------------------	--	----------	--	-------	--

Length of time at Present Job

1-11 months		1-2 years		3-6years		6-10 years		>10 years	
-------------	--	-----------	--	----------	--	------------	--	-----------	--

Level of Education

Primary or lower		Secondary		Matric		Diploma Degree		Other	
---------------------	--	-----------	--	--------	--	-------------------	--	-------	--

Total monthly Household Income (Combined)

R500- R2000		R2001- R4500		R4501- R7000		R7001-R12 000		>R12000	
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Thank you very much for all the answers that you have provided. We shall proceed with the second of the four sections on the information scale which is slightly longer than the demographics section.

C.INFORMATION SCALE

INSTRUCTIONS: Please tick where appropriate.

Continue interview with homeowner/ borrower

C How long have you been living in this house?

Less than 3 months	19 months to 5 years
3 to 6 months	5 years to 10 years
7 to 18 months	

Which of the following did you do to buy this house?

Have you looked at houses / plans of houses with a view to buy?	YES	N
		O
Have you contacted a bank for a home loan?	YES	N
		O
Have you contacted any other financial institution/s other than a bank for a home loan?	YES	N
		O
Have you contacted an estate agent?	YES	N
		O
Have you contacted a developer/housing company with a view to buying a house?	YES	N
		O
Did you obtain information about buying a house?	YES	N
		O
Have you obtained other information from the local authority with a view to buying a house?	YES	N
		O
Have you saved a deposit to buy this house?	YES	N
		O
Have you paid a deposit towards this house?	YES	N
		O

When buying this house, were you taken through a borrower educational process or any information sharing session? YES N
O

Before you acquired this house, how much did you know about the home loan process from pre-approval

Nothing		Very Little		Knowledgeable Already	
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to origination?

In terms of knowledge and information, do you feel more empowered now than before you became a homeowner? YES N
O

If, yes would you attribute information and knowledge acquisition to you financier? YES N
O

Were you informed about the ongoing costs of homeownership, viz. insurance, and municipality rates? YES N
O

Did your financier verbally spelt out your obligations and responsibilities of this mortgage contract? YES N
O

Did your financier through a brochure spelt out your responsibilities and obligations of this mortgage contract? YES N
O

Did your financier spelt out your responsibilities and obligations through a training process in the form of a classroom orientation? YES N
O

Were you clear on what is expected from you about the terms and conditions of the contract? YES N
O

Did your financier inform you of what is expected of them in terms of their roles and responsibilities? YES N
O

Have you ever fallen behind on your monthly repayments? YES N
O

If yes, did it happen for than just one occasion? YES N
O

When you realized that you will not be able to meet your monthly repayments, did you contact your financier? YES N
O

If, yes did they advise use appropriately? YES N
O

Please elaborate-----

If no, why did you not contact them?

Do you have a good relationship with your financier? YES N
O

How would you describe or rate your relationship with your financier?

Very Good		Good		Poor		Very Poor	
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Do you trust that your financier have your best interests in terms of managing your mortgage account? YES N
O

Are there any improvements or renovations that you done in this house? YES N
O

Were you made aware by your financier about the benefits of maintaining and up-keeping your house? YES N
O

Would you recommend your financier to a friend or relative? YES N
O

Given an option, would you cancel out your mortgage account with your financier?	YES	N
		O
Would you consider switching your mortgage account to another financier?	YES	N
		O
If yes, would you still opt for another bank as your financier?	YES	N
		O

Thank you very much for your honest response. We are now moving to the last Section that deals with household budget and expenditure patterns.

ANNEXURE B

Lender questionnaire

The purpose of this section is to elicit banks' views on the type of educational programmes aimed at empowering prospective borrowers and homeowners. Importantly, it is to measure how these programmes impact on borrowers' financial behaviour and the ability to make mortgage repayments.

Dear Sir/Madam

My name is Vuyisani Moss.

I am a student at the University of the Witwatersrand. I am conducting research on banks' borrower programmes for mortgage product offerings and ability to make repayment issues. I therefore would like to ask you some questions pertaining to these elements.

Your answers will be confidential. Your answers will be put together with those of other banks that were also requested to fill-in the questionnaire and will be analysed both cumulatively and individually for proper assessment purposes.

Your open and honest opinion is very important to us and would be of great significance.

Thanking you in advance

1. Does your institution have programmes aimed to empower prospective mortgage account holders especially low income households?

2. If yes, please describe the type of your educational programmes that you provide to home loan borrowers.

3. When was this empowerment programme introduced and why did you introduce the programme?

4. How do you roll out these programmes to ensure that customers are empowered? In what format?

5. In your view, is there a relationship between non-payment behaviour and the lack of borrower education or information asymmetry?

6. What is your average rate of default on home loans in particular those propertied priced up to R400.000?

7. In general, what are risk factors contributing to homeowner's non-payment behaviour in this market of (housing priced up to R400.000)?

8. In terms of mitigating interventions, how does your bank reduce the rate of defaults on such home loans?



9. In Johannesburg, which areas are highest on defaults?

10. What could this non-payment behaviour be attributable to?

11. What kind of measures are to you apply in ensuring that such non-payment behaviour had to be corrected?

12. Financial institutions, banks in particular have been perceived as insensitive and uncaring profit driven with little regard for consumers, is this justifiable?

Yes No

13. If yes, what have you done to address such perceptions?

14. What type of collateral or security that you require from potential borrowers to grant home loans?

15. What are the perceived risks in this market?

16. Does your typical low income borrower understand the responsibilities associated with homeownership and ongoing cost?

Does your typical low income borrower understand the concept of interest rate fluctuations?

17. How do you evaluate the benefits of borrower education and its effectiveness to empower borrowers?

18. How would you describe your relationship with your mortgage account holders?

19. Any other comments you would like to share in general?
