Gordon Institute of Business Science
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Antecedents of Saving Behaviour among the Black Middle Class in South Africa

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

6 November 2017

Abstract

This paper determined the antecedents to saving behaviour of South Africa's black middle class. South Africa's household saving rates are lower than its emerging market peers. Stimulating domestic savings is crucial for the country's macroeconomic stability. The Theory of Planned Behaviour (TPB) is the theoretical framework employed in this research. The black middle class constitutes a significant portion of South Africa's middle class population. Thus, encouraging saving in this social class is likely to improve South Africa's saving statistics. This paper also examined whether conspicuous consumption has become a social norm among the black middle class in South Africa and its influence on saving behaviour.

To conduct the research, an online questionnaire was distributed using convenience and snowball sampling. One-hundred and seventy-one responses were valid and analysed. Structural Equation Modelling was applied to these responses to test the hypotheses.

This research found that attitude and perceived behavioural control had a positive impact on intention to save. While social norm and conspicuous consumption had no impact and there was a negative intention to save. The research suggests that policy-makers and financial institutions should focus on building a positive social norm towards saving among the black middle class in South Africa.

Key words: Savings; Theory of Planned Behaviour; Black middle class; Conspicuous consumption;

Declaration

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

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Ayanda Olifant Date

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1 Chapter 1: Introduction

1.1 Introduction

This research determined the antecedents of saving behaviour among South Africa's black middle class, through the lens of the Theory of Planned Behaviour (TPB). The TPB states that volitional behaviour is driven by the intention to enact the behaviour (Ajzen, 1991). The TPB posits that behavioural intention is influenced by an individual's attitude, the social norm and perceived ability toward the behaviour (Ajzen, 1991). According to Ajzen (1991) this intention to enact the behaviour drives the actual enactment of the behaviour.

This research focused on South Africa's black middle class because it constitutes a significant portion of South Africa's population. South Africa's population has a wide income inequality (The World Bank, 2017b). The World Bank (2017) measures the Gini coefficient as 69%, which means that 20% of the wealthiest in the population receive 69% of income in the country. Although, South Africa's middle class cannot be defined as individuals whose income is within the middle bands of the country's income distribution, the high income inequality underscores its financial importance in the country. Middle classes are deemed an important social class in driving political, social and economic change in developing countries (Zizzamia, Schotte, Leibbrandt, & Ranchhod, 2016) Thus, the focus on the middle class.

The South African population is, broadly, stratified into four racial groups – Black African, Black Coloured, Black Indian and White (South Africa: Department of Labour, 1998). This research focussed particularly on the Black African racial segment. The black middle class constitutes at least 41% of South Africa's middle class population (Kotze, du Toit, Steenkamp, Burger, & Van Der Berg, 2013), which makes it a significant social class in the country. Thus, understanding the antecedents of saving behaviour among South Africa's black middle class is an important step to positively impacting the country's national saving statistics.

For the purposes of this research, saving is defined as delayed consumption .i.e. refraining from consumption in the current period in favour of consuming in later periods (Wärneryd, 1989).

In addition, this research examined whether conspicuous consumption had become a social norm among the black middle class and, if it had, what the effect this had on the intention to save. There is a plethora of research which characterises the black middle class by its spending behaviour. Specifically, this spending trends are characterised as conspicuous consumption (Burger, Louw, Pegado, & van der Berg, 2015; Visagie & Posel, 2013; Zizzamia et al., 2016). This characterisation was underscored by the colloquial term, "Black Diamonds",

to describe the black middle class in South Africa (UCT Unilever Institute of Strategic Marketing, 2006). According to UCT Unilever Institute of Strategic Marketing (2006), the term reflected the ostentatious spending patterns of the group.

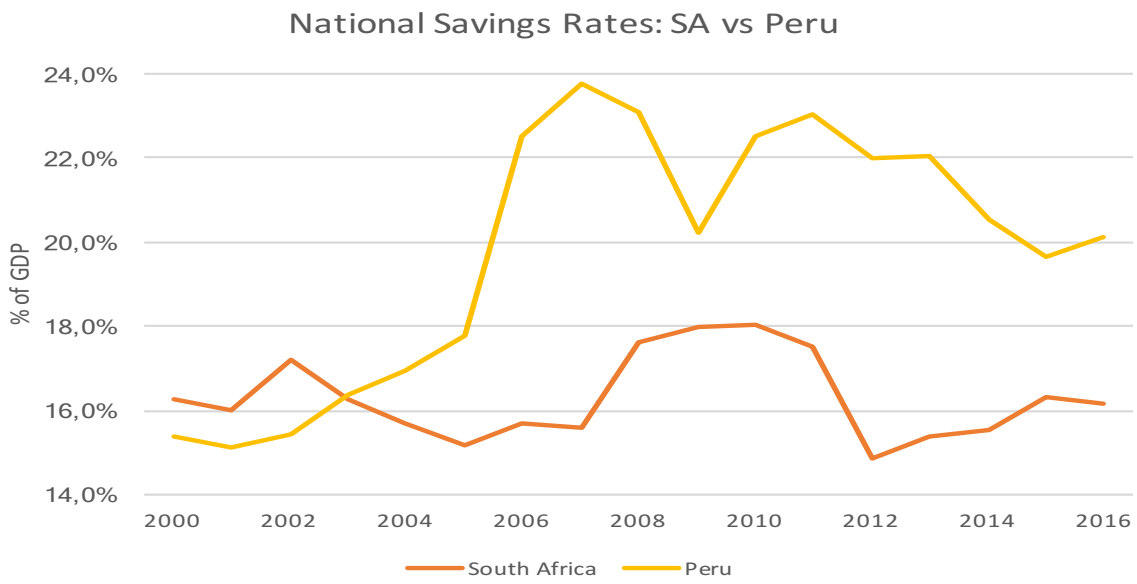
This chapter outlines the background to the research, the research problem, objectives and questions. It then concludes with the business and theoretical relevance of the research and an outline of the rest of the paper.

1.2 Background

Economic theory states that countries with higher savings rates are able to finance their investment spending (Solow, 1956) This, according to Solow (1956), in turn expands the size of the economy and results in sustainably higher economic growth rates. China and India prove this to be true. Since 2011, China and India have maintained average economic growth rates of 8% and 7%, respectively (International Monetary Fund, 2017). In particular, household saving rates in China are 30 times higher than in South Africa (OECD, 2017) and the economy is growing at least 7 times faster than South Africa's (International Monetary Fund, 2017). In 2014, household saving in China was 38% (percent of disposable income). This is relative to negative 1.7% in South Africa (OECD, 2017). While Chinese GDP grew at 7.3% (y/y), South Africa's grew by a meagre 1.7% (y/y). SA is trailing its BRICS peers in terms of savings and consequently, economic growth (Kapingura & Alagidede, 2016).

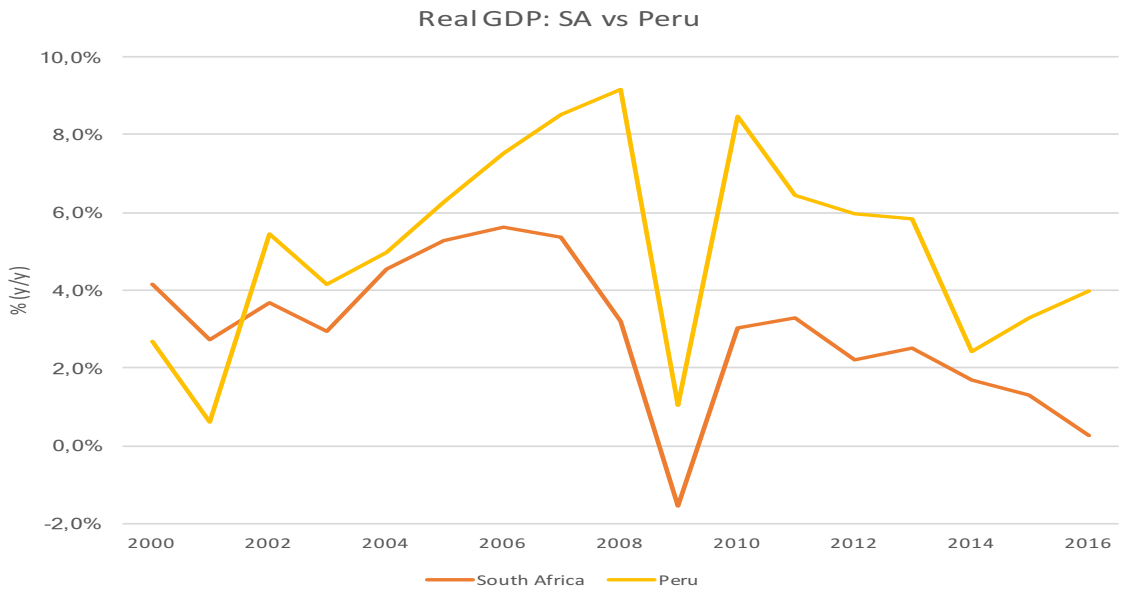
Given that China's GDP per capita is $3,000 higher than South Africa (The World Bank, 2017a), a more equitable comparison may be between South Africa and Peru. Peru's GDP per capita is similar to South Africa's ($6,045 and $5,274 respectively (The World Bank, 2017a). Since 2011, Peru has maintained a gross saving rate of 20% and achieved an average economic growth rate of 5% (International Monetary Fund, 2017). This is relative to South Africa's gross savings rate of 16% and average GDP of 2% since 2011 (International Monetary Fund, 2017). See figure 1.1. and 1.2. This underscores the importance of domestic savings to reinforcing a country's economic expansion.

Figure 1.1: National Savings Rates: Peru vs. SA



Source: IMF World Economic Outlook, 2017

Figure 1.2: Real GDP growth: Peru vs. SA



Source: IMF World Economic Outlook 2017

According to the Reserve Bank of South Africa (2017), household savings rates have been negative since 2006, indicating dissaving by South African households. This leaves the country relying on foreign capital to finance its economic growth. This foreign capital consists largely of portfolio flows, which is the purchase of bonds and equities by foreigners. In 2016

"net inflows were 20% lower than in 2015, due to monetary policy tightening in the United States (Monyela & Madonsela, 2017). While, the inflows were still "sufficient to fund the domestic saving-investment gap" (Monyela & Madonsela, 2017, p85), expectations of sustained monetary tightening in the United States of America (United States of America Federal Reserve, 2017) could see further declines in portfolio inflows. Net foreign capital outflows result in currency depreciation, as the South African Rand is sold. Given that South Africa is a net-importer of goods and services, a weak currency increases domestic prices. Rapidly rising prices, inflation, pose a risk to long-term domestic macroeconomic stability(Reserve Bank of South Africa, 2017). Therefore, increased domestic household saving could insulate the South African economy from these negative currency impacts.

The sovereign credit rating downgrades, which took place in 2017, have highlighted the country's vulnerability to a currency crisis. Further, expected, credit rating downgrades could result in international fund managers withdrawing their investment in South Africa because their mandates would preclude them from investing in sub-investment grade bonds. This would result in portfolio outflows, which could make South Africa vulnerable to a sharp depreciation of the Rand and a potential currency crisis. High domestic savings rates would mitigate against this risk as the impact of the withdrawal of foreign capital, the portfolio outflows, would be buffered by domestic savings. Therefore, driving domestic savings is crucial to ensuring macroeconomic and currency stability.

South Africa's black middle class is ideal to making to a significant contribution to domestic savings because of the size of the social group. The size of South Africa's black middle class range between 8% - 15% of the total population (Burger et al., 2015). Of the 16 million employed, the black middle class makes up 25% of those that are employed (Statistics South Africa, 2017b). Kotze, du Toit, Steenkamp, Burger, & Van Der Berg (2013) estimate that the black middle class constitutes at least 41% of South Africa's middle class population. This makes it a significant social class in South Africa, which also has the disposable income to allocate to saving. In addition, a change in saving behaviour by this social class is likely to positively impact the national savings statistics.

Therefore, understanding the antecedents of saving behaviour among South Africa's black middle class could provide valuable information about stimulating saving behaviour in South Africa. Specifically, in light of the size of this social class, stimulating its saving behaviour would aid in turning the tide in the national household savings statistics. This in turn is crucial for macroeconomic and currency stability in South Africa.

The following section presents the research problem this research sought to examine.

1.3 Research Problem

South Africa has a dismal history of savings. This is demonstrated by the fact that since 2006, households have been dissaving (Reserve Bank of South Africa, 2017). This has negative implications for macro-economic and currency stability. Also, the spending behaviour of the black middle class has been characterised as conspicuous consumption.

These paltry savings rates leave South Africa dependent on foreign capital flows to fund its investment spending. These flows are driven by global market sentiment and are prone to volatility (Monyela & Madonsela, 2017). Specifically, further expected sovereign credit rating downgrades could result in these portfolio flows being withdrawn from the country. This could result in sharp depreciation of the Rand, which could result in rampant inflation.

South Africa's economic growth is set to remain below 5% over the forthcoming decade (International Monetary Fund, 2017). This suggests that the environment that business operates in, is set to remain challenging. Meagre economic growth coupled with rising inflation pose a strain on economic activity. Therefore, stimulating household saving is imperative for macroeconomic and currency stability.

According to UCT Unilever Institute of Strategic Marketing (2012) "The black middle class is helping create a vibrant and stable society by increasing South Africa's skills base, deepening employment and widening the tax net". Regardless of which measure used, the black middle class makes up at least 41% of the South African middle class (Kotze et al., 2013). As a collective, this segment can make a contribution to the country's consumerism or financial health. A meaningful shift in saving behaviour could alter the country's household savings statistics and aid in creating more stability in the country's balance of payments.

The following section presents the research objectives and questions posed by this research.

1.4 Research Objectives and Research Questions

This research sought to determine antecedents to South Africa's black middle class' saving behaviour. This was examined through the lens of the Theory of Planned Behaviour, which was the preferred theoretical framework for this research. The impact of attitudes, social norms, conspicuous consumption and the perceived behavioural control toward saving on the behavioural intention to save were examined. The overarching question this research seeks to answer is: ***What are the antecedents for saving behaviour amongst South Africa's Black middle class?*** In answering this question, the following research questions were obtained. These questions are:

- What is the attitude of South Africa's black middle class towards saving and how does this attitude impact the behavioural intention to save? Attitude towards the behaviour

refers to the belief associated with a behaviour (Ajzen, 1991). One is more likely to enact a behaviour that is believed to hold a desirable outcome versus one that is likely to result in a negative outcome (Ajzen, 1991).

- What is the social norm towards saving of the black middle class in South Africa and how does this impact the behavioural intention to save? Subjective norm is a combination of normative beliefs and an individual's incentive to adhere to those beliefs (Ajzen, 1991). Ajzen (1991) states that normative beliefs are determined by whether a referent individual or group deem a certain behaviour to be appropriate. Social norm "refers to the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991, p.188).
- Has conspicuous consumption become a social norm among the black middle class in South Africa and how does this social norm impact the behavioural intention to save? Conspicuous consumption is defined as a spending behaviour of a social class that aims to signal its wealth through the purchase of artefact, such as cars and houses (Trigg, 2001). Specifically, this social class aims to emulate the wealth of a wealthier social class to which it does not belong (Veblen, 1899).
- What is the perceived behavioural control towards saving of the black middle class in South Africa and how does this impact the behavioural intention to save? Ajzen (1991) states that perceived behavioural control (PBC) is a combination of control beliefs and the perceived power to enact the behaviour. PBC transcends the actual ability to enact the behaviour but focusses on the individual's belief in their ability to enact the behaviour (Ajzen, 1991).
- What is the behavioural intention towards saving of the black middle class in South Africa and how does this impact saving behaviour? Behavioural intention is an indication of how determined the individual is in enacting the behaviour and actions are driven by their intention (Ajzen, 1991).

The following section outlines the relevance of this research report.

1.5 Relevance of the Research

1.5.1 Business relevance

This research aims to determine the antecedents of saving behaviour among the black middle class in South Africa. Understanding these antecedents can aid financial services institutions and policy-makers in terms of which "levers to pull" in order to stimulate saving behaviour. That is, whether to develop a positive attitude or social norm towards saving or whether to drive financial literacy training. Isolating the antecedents, as per the TPB, can stimulate saving behaviour.

The research also aims to determine whether conspicuous consumption has become a social norm among the black middle class in South Africa. This outcome is of particular importance to marketing managers because it can aid in better understanding whether this social group is homogenous in the drivers of their buying behaviour. This can aid marketing managers in better positioning their products to this social class.

1.5.2 Theoretical relevance

Despite the importance of savings to the South African economy, there is dearth of research on saving by the black middle class in South Africa. The research on this social class has focussed on its spending behaviour. A study on conspicuous consumption across race groups found that the black households in South Africa spent up to 50% more, on goods that signaled their social status, than their white counterparts (Kaus, 2013). However, the paper did not delineate whether this was due to cultural norms/preferences or whether is reflected asset accumulation or life-stage (Burger et al., 2015; Nieftagodien & van der Berg, 2007). This research fills the gap in the literature by determining the antecedents of saving behaviour among the black middle class in South Africa.

In addition, this research aims to test whether conspicuous consumption has become a social norm among the black middle class in South Africa. Much of the research on the black middle class has characterised the saving behaviour as conspicuous consumption (Burger et al., 2015; Visagie & Posel, 2013; Zizzamia et al., 2016), without determining whether this is the underlying motivation for the purchase decisions of the black middle class in South Africa.

Lastly, the research contributes to literature by applying the Theory of Planned Behaviour to savings behaviour in the South African context. The literature on saving in South Africa has yet to understand the antecedents of saving behaviour through the lens of the TPB. In addition, the TPB has yet to be applied to saving behaviour of the black middle class in South Africa. This research fills that gap.

The following section outlines the structure of this research report.

1.6 Outline of the Study

The structure of this report is as follows:

Literature review: This chapter of the paper reviews the saving trends in South Africa, the existent literature on savings in South Africa, the definition of the middle class, the black middle class in South Africa, the theory of planned behaviour, saving behaviour, conspicuous consumption, the black middle class in South Africa and conspicuous consumption and collectivism.

Hypothesis: This chapter presents the five hypothesis tested in this research.

Methodology: This chapter outlines the research design, the relevant population, unit of analysis and sampling method and size. This is followed by a discussion on the measurement instrument, data gathering process, reliability and consistency and data analysis. The chapter concludes with a discussion on the limitations of the methodology.

Results: This chapter presents the results of the statistical tests run in this research. The chapter commences with the sample distributions of the demographic variables, descriptive statistics to sketch the context. The Structural Equation Modelling measurement and structural models are then presented. The chapter concludes with the results of the statistical analysis.

Discussion of results: This chapter presents the interpretation of the results of the statistical analysis

Conclusion: This chapter summarises this research, presents the implications for management, policy-makers and theory. It then concludes with research limitations of the research and presents suggestions for future research.

1.7 Conclusion

This paper aims to determine the antecedents of saving behaviour by the black middle class in South Africa, through the lens of the theory of planned behaviour. Encouraging household savings is crucial to South Africa's macroeconomic and currency stability. The black middle class constitutes a significant proportion of the South African society. Therefore, stimulating saving behaviour in this social class could improve the national households saving statistics. In particular, the research aims to determine the attitude, social norm, conspicuous consumption as a social norm, and perceived behavioural control toward saving behaviour and its impact on the behavioural intention to save. Further, the research also aims to determine the impact of behavioural intention on saving behaviour.

2 Chapter 2: Literature review

Chapter 1 presented the background to this research and outlined the research problem that this papers aimed to address. That is, what are the antecedents to saving behaviour by the black middle class in South Africa.

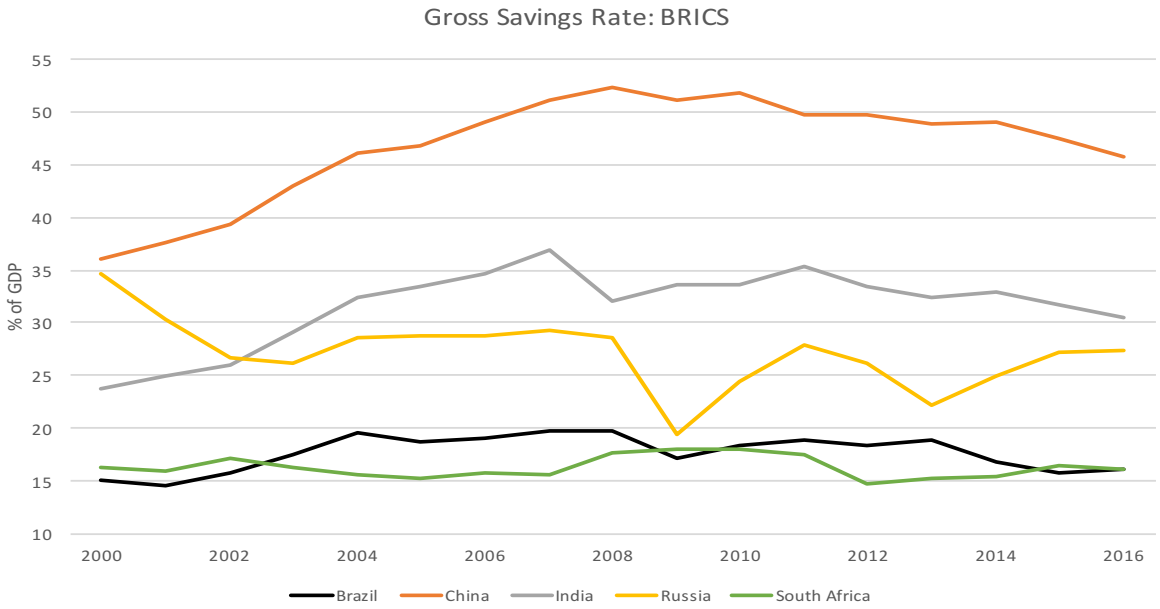
This chapter presents a review of the relevant extant research (Saunders & Lewis, 2012) on the antecedents of saving behaviour by the black middle class in South Africa. In this chapter, literature on saving trends in South Africa, the middle class, with a focus on the black middle class in South Africa, the Theory of Planned Behaviour (TPB), saving behaviour, conspicuous consumption, the black middle class in South Africa and conspicuous consumption and collectivism is reviewed.

2.1 Saving in South Africa

2.1.1 Saving in South Africa: Trends

Schwab (2015, p. 375) defines aggregate national savings “as public- and private- sector savings as a percentage of nominal GDP”. Gross domestic saving consists of three elements: government, corporate and household savings. Schwab (2015, p. 375) goes further to state that national savings equals gross domestic investment plus the current-account balance”. Accordingly, Schwab's (2015) definition suggests that higher national savings translates into increased domestic investment and a positive current account balance. This has positive implications for currency stability and and the funding of domestic investments, which in turn is positive for macroeconomic stability. Solow (1956) also posits that countries with higher savings rates are able to finance their investment spending, consequently being able to attain higher economic growth rates. Since 2000, this appears to hold true for China and India, which have had substantially higher national saving than the other three countries in the BRICS cohort (International Monetary Fund, 2017). Consequently, according to Schwab (2015) and Solow (1956), their economic growth rates are also higher (International Monetary Fund, 2017). Conversely, South Africa has significantly lower national savings rates than China and India, and in turn, lower economic growth rates (International Monetary Fund, 2017). BRIC, Brazil, China, Russia and India, are a cohort of emerging market countries that were forecast to contribute significantly to global growth by 2050 (Investopedia, 2017). South Africa was included in 2011 to create BRICS (Investopedia, 2017). See figure 2.1 and 2.2

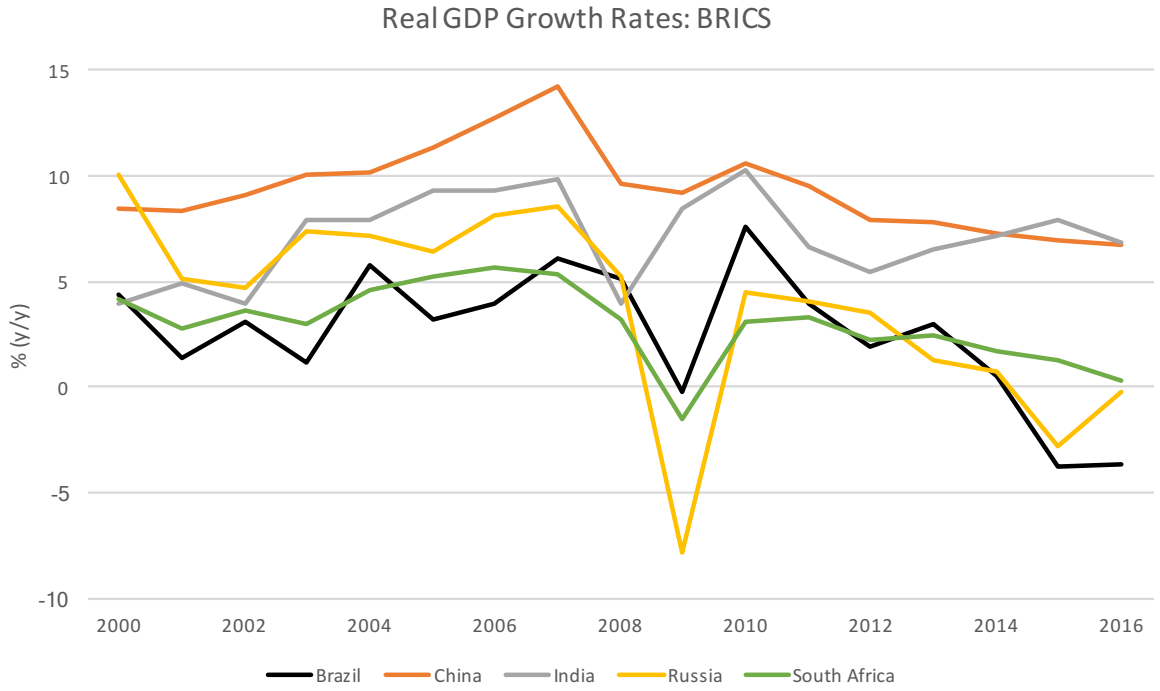
Figure 2.1: Gross Savings Rates: BRICS



Source: IMF World Economic Outlook 2017

China and India's GDP growth rates are also substantially higher than the other three countries.

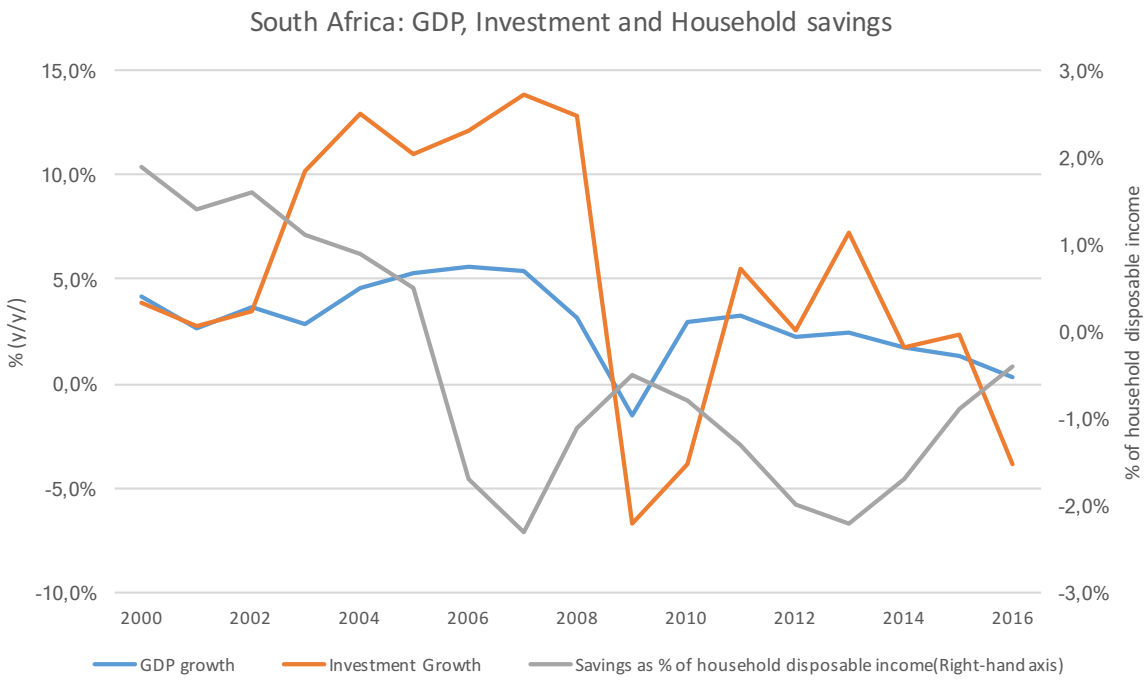
Figure 2.2: GDP growth Rates: BRICS



Source: IMF World Economic Outlook 2017

This paper is particularly interested in household saving rates. According to the South African Reserve Bank (2017), South African households have been dissaving since 2006. Prior to that, 2000 and 2006, saving as a ratio to disposable income had not exceeded 2% (Reserve Bank of South Africa, 2017). Figure 2.3 below shows this. It also shows that GDP and investment growth remained subdued since 2009. Thus, underscoring the importance of domestic saving to investment growth and consequently, economic growth.

Figure 2.3: South Africa: Real GDP, Investment and Household Savings



Source: South African Reserve Bank, 2017

The dearth in saving in South Africa further manifests in the country's reliance on foreign capital flows to fund the current account deficit (Reserve Bank of South Africa, 2017). **Table 2.1** below indicates that South Africa's financial account consists largely of portfolio flows, which is the purchase of bonds and equities by foreigners (Reserve Bank of South Africa, 2017). These portfolio flows are dependent on global market developments , which leave South Africa vulnerable to extreme exchange rate and global capital market volatility (Monyela & Madonsela, 2017). Thus, if portfolio flows decline, the funding of the country's current account balance will come under pressure. This in turn would leave the country vulnerable to a currency crisis. Net foreign capital outflows result in a currency depreciation, as South African Rand are sold. Given that South Africa is a net-importer of goods and services, this weaker currency increases domestic prices. Rapidly rising prices, inflation, pose a risk to domestic macroeconomic stability (Reserve Bank of South Africa, 2017). Therefore, an increase in domestic saving provides a buffer to the country's vulnerability to currency crisis.

This is because domestic savings would fund the current account balance in the event that portfolio flows decline. This underscores the importance of saving to a country's macroeconomic stability. Further, increased saving by the black middle class in South Africa, which is a significant social class in the society (Kotze et al., 2013), would provide a catalyst for changing South Africa's national saving behaviour.

Table 2.1: Composition of South Africa's Balance of Payments

	2012	2013	2014	2015	2016
Current Account Balance	-166 949	-208 129	-202 253	-177 897	-141 596
Financial Account balance	201 502	179 616	246 795	204 400	148 770
Net Direct Investment (Rm)	12 900	15 942	-20 607	-51 217	-16 352
Net Portfolio Investment (Rm)	112 355	107 191	145 774	122 622	240 604
Net Financial Derivatives (Rm)	14 378	7 478	16 409	4 882	-13 757
Net Other Investment (Rm)	70 824	53 663	121 821	119 042	-21 144
Reserve Assets (Rm)	-8 955	-4 658	-16 602	9 071	-40 581

Source: South African Reserve Bank, 2017

2.1.2 Saving in South Africa: Literature

Despite the economic importance of savings in South Africa, there is a paucity of academic literature on the topic. Though it should be noted that several practitioner reports and indices have been created (Investec, 2016; Momentum, 2014; Old Mutual, 2017). In academia though, only six published journal articles were obtained from the last five/six years. Of these five focussed on macroeconomic variables and their influence on saving behaviour using econometric techniques. These macroeconomic variables include inflation and interest rates(Amusa, 2014; Chipote & Tsegaye, 2014; Mongale, Mukuddem-Petersen, Petersen, & Meniago, 2013; Simleit, Keeton, & Botha, 2011; Syden, 2014; Zwane, Greyling, & Maleka, 2016). Only one paper used household survey data in the form of the National Income Dynamics Study (NIDS). NIDS is a panel study, conducted twice a year, of 28,000 individuals in South Africa (Southern Africa Labour and Development Research Unit, 2017). This paper focused on variables such as dependency ratio, the size of household and age of household head (Zwane et al., 2016). This is the only paper of the last five/six years that deals with savings behaviour on a disaggregated level.

The findings across these five papers are inconsistent. Mongale et al.(2013), Syden (2014) and Zwane et al.(2016) find that there is a positive relationship between income and savings. Mongale et al. (2013) and Syden (2014) applied econometric techniques to the Keynesian savings function using South Africa's national household saving data. The study found that higher disposable income and economic growth leads to higher saving (Mongale et al., 2013; Syden, 2014). Similarly, Zwane et al.(2016) applied econometric techniques to the National Income Dynamics Study, which is panel data. This paper also found that there is a positive relationship between household savings and income in South Africa (Zwane et al., 2016). This supports this research paper's focus on the middle class, which is expected to have sufficient disposable income to justify saving behaviour.

Conversely, other research found a negative relationship between saving and income (Chipote & Tsegaye, 2014; Simleit et al., 2011). Chipote & Tsegaye (2014) also applied econometric techniques to South Africa's national household saving data, and found that there is a negative relationship between household saving and income. Similarly, Simleit et al.(2011) employed econometric techniques to national household saving data and found a negative relationship between household saving and economic upswings (a proxy for income). Amusa (2014), using a similar technique, found no relationship between household saving and economic growth. These papers, which present counter-intuitive results, further contribute to this paper's research question: What are the antecedents for saving behaviour in South Africa? More specifically, among the black middle class in South Africa.

Further to that, there is a paucity of published research specifically on the saving behaviour of the black middle class in South Africa. This paper seeks to fill this gap in the existent literature on household savings in South Africa and expressly on the black middle class.

The following sections review the existent literature on the definition of the middle class, the black middle class in South Africa, the TPB, saving behaviour, conspicuous consumption, conspicuous consumption and the black middle class in South Africa and collectivism.

2.2 Middle Class

According to Kravets & Sandikci (2014) the literature presents four frames for defining the middle class*:* income, occupation, education and culture. Bonnefond, Clement, & Combarnous (2015) on the other hand characterise the frames as 1) economic approach based on income, 2) the sociology frame based on income and occupation, 3) a subjective approach based on class consciousness and 4) a managerial approached based on consumption habits. Remington (2011) however further simplified these into three categories: 1) level of income and material well-being, 2) occupational and educational status and 3) self-identification. This paper will employ the simplified categories as qualifiers in the empirical research. This is

because the formation of the black middle class in South Africa was driven by a combination of educational attainment, a liberalisation of occupations in the public and private sector and the provision of entrepreneurial opportunities by the public sector (Mattes, 2015).

2.2.1 Middle Class Classification: Income

The income definition further splits into two: relative income and absolute income measures of the middle class (Birdsall, Graham, & Pettinato, 2000). Using the relative income definition of the middle class, Birdsall et al. (2000) define the middle class as having income levels ranging between 75% - 125% of median household per capita income. An alternative measure is defining the middle class using the relative income definition is by splitting the income distribution into quintiles (Bonnefond et al., 2015; Somalingam & Shanthakumari, 2015). The second, third and fourth quintiles of a country's income distribution are then allocated to the middle class (Bonnefond et al., 2015; Somalingam & Shanthakumari, 2015). These measures allow for objective comparison across countries and controls for changes in occupation types over time (Bonnefond et al., 2015; Somalingam & Shanthakumari, 2015). However, it makes the implicit assumption that the income distribution in a country follows a normal distribution and that the range would reflect the "middle" of a country's society (Birdsall et al., 2000). In countries like South Africa, with wide income inequality (The World Bank, 2017b), these measures would present a skewed view of the middle class (Bonnefond et al., 2015; Somalingam & Shanthakumari, 2015).

The absolute income measure of the middle class assigns an adjusted purchasing-power parity (PPP) range. The range of $10-$100 (2005 PPP terms) daily per capita income has been widely quoted in the literature as the measure for the global middle class (Bonnefond et al., 2015; Lopez-Calva & Ortiz-Juarez, 2014; Somalingam & Shanthakumari, 2015). The range is calculated as $10 representing the average poverty line in Portugal and Italy and $100 as double the median income in Luxembourg (Kharas, 2010, p.12). Alternate ranges in the literature include (all at 2005 PPP): $12-$50; $2-$10 for developing countries; $2-$13 (Bonnefond et al., 2015; Lopez-Calva & Ortiz-Juarez, 2014; Somalingam & Shanthakumari, 2015). These ranges provide arbitrary definitions of the middle class largely because poverty lines differ by country. Consequently, the middle classes of some countries would include the poor and vulnerable in the society. In a study on the Chinese middle class using income as a measure Bonnefond et al. (2015) found that there was no convergence in the relative and absolute lower and upper limits. The same evidence was found in South Africa (Visagie & Posel, 2013). Specifically, in South Africa the income measure resulted in a wide range of R403 – R23,969 per month per household (January 2015 prices) (Zizzamia et al., 2016). In light of South Africa's skewed income distribution (The World Bank, 2017b), this research

employs an absolute income measure for the classification of the middle class. These income bands are derived from the national tax statistics as outlined in detail below.

2.2.2 Middle Class Classification: Educational and Occupational Attainment

Sociology applies educational and occupational attainment to the definition of middle class (Bonnefond et al., 2015). In general, the level of education determines the occupation, which in turn determines the level of income(Bonnefond et al., 2015; Remington, 2011). However, in developing countries such as South Africa where the middle classes are formed by the liberalisation of the private sector ***and*** buoyant public sector employment and opportunities (Mattes, 2015) this relationship may decouple. As cited by Remington (2011), the Independent Institute for Social Policy in Moscow found that by income measure, 44% of the population was classified as middle class. Education and occupation measures resulted in only 19% of the population being classified as middle class (Remington, 2011). That is, occupational attainment does not always reflect educational attainment. This is specifically relevant in South Africa where the liberalisation of the public sector may have resulted occupational roles being granted to those without relevant educational attainment (Mattes, 2015).

In terms of the occupation, private entrepreneurs, self-employed workers and small business owners also consist of the middle class (Bonnefond et al., 2015). Thus, semi-professionals such as teachers and nurses are alongside white-collar workers, managers and professionals in the middle class (Southall, 2014, p.650). There may be an argument that the income measures capture a broader aspect of the middle class and should suffice as a definition. This paper includes the occupational and educational definition because of the arbitrariness of the income categories (Bonnefond et al., 2015). Also, in light of composition of the black middle class in South Africa, a combination of a liberalisation of occupations in the public and private sector and the provision of entrepreneurial opportunities by the public sector (Mattes, 2015), educational and occupational classification is included in this research as a classification of the black middle class.

2.2.3 Middle Class Classification: Self-Identification

The subjective approach based on class-consciousness and self-identification provides a third lens through which the middle class can be defined (Burger, Mcaravey, & van der Berg, 2017; Remington, 2011). This definition characterises the middle class as economically secure individuals who are free to pursue their personal goals and aspirations (Burger et al., 2017) which Remington (2011) indicates is a combination of particular behaviours and attitudes. Anthropological research tends to characterise the middle class as a social identification with “people like us” in economic, socio-ideological and a location in an imagined social centre (Kravets & Sandikci, 2014). This definition espouses a lifestyle. The following four criteria are

employed to characterise the middle class by this definition: freedom from concern about survival and meeting their basic needs; financial discretion and buying power; labour market power; access to information and ability to process information (Burger et al., 2017). While this definition provides a useful view of the psychographic of the middle class the biases innate in human perception suggests that this measure is inherently subjective, limiting general comparison. Self-identification is included in this research and was employed in conjunction with the income and education and occupation criteria to define the black middle class in South Africa.

The following sections review the existent literature on the black middle class in South Africa, the TPB, saving behaviour, conspicuous consumption, the black middle class in South Africa and conspicuous consumption and collectivism.

2.3 Black Middle Class in South Africa

South Africa's black middle class ranges from 8% - 15% of the total population (Burger et al., 2015; UCT Unilever Institute of Strategic Marketing, 2012). In 2012, the UCT Unilever Institute estimated that 4 million South Africans could be considered as the black middle class in South Africa. Kotze, du Toit, Steenkamp, Burger, & Van Der Berg (2013) estimate that the black middle class constitutes at least 41% of South Africa's middle class population. This makes it a significant social class in South Africa. It also has the disposable income to allocate to saving. A change in saving behaviour by this social class is likely to positively impact the national savings statistics.

For the purposes of this study, three criteria were used, though only two of the three have to be present. Income approach: The income range was defined as individual income between R20,125 – R73,750 monthly incomes after-tax. This range is derived from the National Tax Tables (National Treasury of South Africa, 2017) and reflects the proportion of the population that contribute 54.3% of income tax to the fiscus. Said differently, the individuals who earn between R350,000 and R1 499 999 per annum constitute 54.3% of the income tax base. This group constitute 24% of the tax paying population - underscoring South Africa's gaping income inequality. The upper-band cut off range was influenced by the fact that the next income tax bracket reflected 1.7% of tax paying population, who contribute 26% to the income tax base. This indicates the elite of the South African society.

The following sections review the existent literature on the TPB, saving behaviour, conspicuous consumption, conspicuous consumption and the black middle class in South Africa and collectivism.

2.4 Theory of Planned Behaviour

The Theory of Planned Behaviour (TPB) is derived from the Theory of Reasoned Action (TRA), which stated that an individual's actions are driven by their intention toward the behaviour (Ajzen, 1991). Intention is an indication of how determined the individual is in enacting the behaviour (Ajzen, 1991). In particular, states Ajzen (1991), the behaviour needs to be one over which the individual has choice. The TPB extended the TRA by including the "availability of resources and opportunity to enact the behaviour (time, money, skills, the cooperation of others)" (Ajzen, 1991, p.182). This becomes an additional factor influencing behavioural intention and actual behaviour. Thus, the TPB states that behaviour is influenced by behavioural intention and the ability to enact the behaviour. In turn, behavioural intention is affected by three constructs: attitude, social norms and perceived behavioural control (Ajzen, 1991).

2.4.1 Attitude

This refers to the belief associated with a behaviour (Ajzen, 1991). This belief attributes a (subjective) positive or negative outcome to the behaviour and influences the attitude toward the behaviour (Ajzen, 1991). Thus, one is more likely to enact a behaviour that is believed to hold a desirable outcome versus one that is likely to result in a negative outcome. The TPB states that a positive (negative) attitude toward a behaviour increases (decreases) the behavioural intention toward the behaviour and consequently the behaviour (Ajzen, 1991). This research sought to determine South Africa's black middle class' attitude toward saving and its impact on the behavioural intention towards saving.

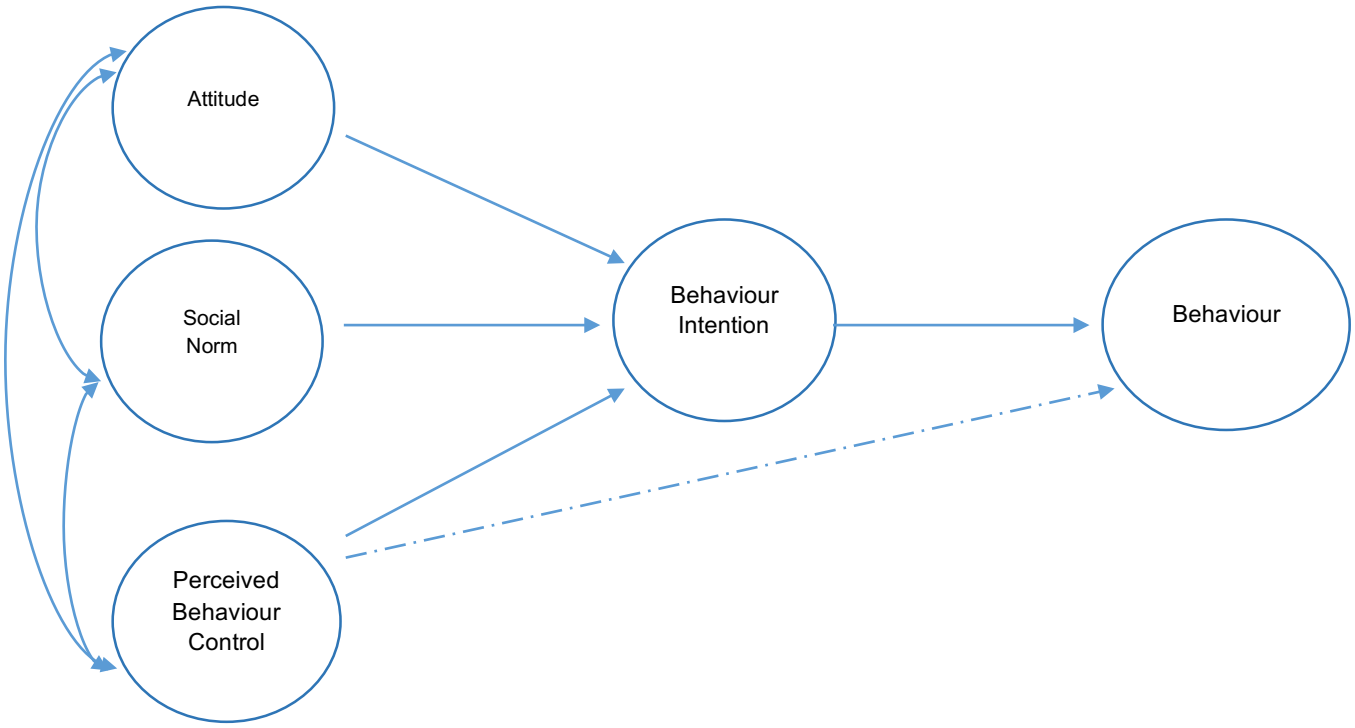
2.4.2 Subjective Norm

This is a combination of normative beliefs and an individual's motivation to comply with those beliefs (Ajzen, 1991). Normative beliefs are determined by whether a referent individuals or group deem a certain behaviour to be appropriate (Ajzen, 1991). This "refers to the perceived social pressure to perform or not to perform the behaviour" (Ajzen, 1991, p.188). The TPB states that the more favourable (less favourable) the subjective norm towards the behaviour, the stronger (weaker) the behavioural intention and consequently, the behaviour (Ajzen, 1991). This research sought to determine South Africa's black middle class' social norm toward saving and its impact on the behavioural intention towards savings. In addition, the research sought to determine whether conspicuous consumption has become a social norm among the black middle class and this social norm's impact on the behavioural intention to save.

2.4.3 Perceived Behavioural Control (PBC)

This is a combination of control beliefs and the perceived power to enact the behaviour (Ajzen, 1991). Ajzen (1991) states that control beliefs refers to the presence of resources and opportunity to enact a behaviour and beliefs can be informed by one's own experience or that of friends and family . "The more resources and opportunities an individual believes they possess, and the few obstacles they anticipate, the greater the perceived control over the behaviour" (Ajzen, 1991, p.196). The second component to PBC refers to self-efficacy, which Ajzen (1991) takes from Bandura's (1982) definition which relates to how confident one feels in their own ability to enact a behaviour. PBC transcends the actual ability to enact the behaviour but focusses on the individual's belief in their ability to enact the behaviour (Ajzen, 2011). The TPB states that positive (negative) PBC towards the behaviour, the stronger (weaker) the behavioural intention (Ajzen, 1991). In addition, a positive (weaker) PBC toward the behaviour will also directly impact the enactment of the behaviour (Ajzen, 1991). Ajzen (1991) states that where behavioural intention is held constant, an individual with a higher PBC is more likely to persevere and eventually succeed in enacting the behaviour than an individual with lower PBC. This research sought to determine South Africa's black middle class' perceived behavioural control toward saving and its impact on the behavioural intention towards saving. The impact of each of the three constructs differs in weighting in differing contexts. Figure 2.4 below presents a diagrammatic representation of the TPB (Ajzen, 1991).

Figure 2.4: Theory of Planned Behaviour



Source: The Theory of Planned Behaviour, Ajzen, 1991

The TPB has been applied in a myriad of studies and has been found to be an effective model in explaining consumer behaviour (McEachan, Conner, Taylor, & Lawton, 2011). By November 2017, it had been cited at least 52, 313 times since 1991, according to Google Scholar. Thus, the theory of planned behaviour was deemed the appropriate theoretical model in order to determine the antecedents of saving behaviour among the black middle class in South Africa.

A meta-analysis on the efficacy of TPB found medium-large correlations among the constructs (McEachan et al., 2011). Intention was found to have a mean correlation of 0.43 with behaviour (McEachan et al., 2011, p.11). This was underscored by mean correlations of 0.57 for attitude, 0.40 for social norm and 0.54 for PBC in relation to behavioural intention (McEachan et al., 2011, p.11). PBC recorded a medium-sized correlation, 0,31, with behaviour (McEachan et al., 2011, p.11). This reinforced an earlier meta-analysis (Armitage & Conner, 2001) which reported mean correlations of 0.47 for intention and PBC 0.37 with behaviour. Attitude 0.49, social norm 0.34 and PBC 0.43 in relation to behavioural intention (Armitage & Conner, 2001, p.481). Overall, intention is found to have the strongest correlation to behaviour (Armitage & Conner, 2001; McEachan et al., 2011) – supporting the TPB. The variation in the mean correlation reflects the differences in behaviour type, context and methodology (McEachan et al., 2011). Behaviours that had a positive outcome (physical activity or diet) had a better correlation than behaviours with a potentially negative outcome (risky or abstinence) (McEachan et al., 2011). Different contexts (circumstance and culture) also explain the variation across studies. One behaviour can have differing social acceptance across national and ethnic cultures (Hassan, Shiu, & Shaw, 2016). In light of the fact this research measured saving behaviour, a socially acceptable behaviour, it was expected that there would be a positive relationship between attitude and social norm towards saving behaviour among the black middle class in South Africa.

The methodology applied also impacts the variation across studies. Where the behaviour is self-reported, particularly where the behaviour is deemed socially acceptable, responses are likely to be what is socially acceptable, rather than honest or accurate (Hassan et al., 2016). Therefore, because the data for this research was collected through a self-administered survey, it was expected that there may be over-reporting in terms of whether respondents saved.

Other methodological inconsistencies include 1) Ensuring that the same behaviour is referred to and measured consistently through the study (Hassan et al., 2016). Saving behavioural intention and saving behaviour. Not saving behavioural intention and investment behaviour, for instance; 2) Consistency with how behaviour is measured (binary response) versus how intention is measured (Likert-scale) (Hassan et al., 2016). Though some behaviour can only

be measured on a binary scale (Do you save monthly?) (Hassan et al., 2016); and 3) The operationalisation of PBC. Ajzen (1991) defined PBC as a combination of control belief and self-efficacy. Some studies were found to measure only either of the two, rather than both. This has been attributed to the variation in correlations and in particular the relatively low correlation of the PBC to intention and behaviour (Cooke, Dahdah, Norman, & French, 2016).

Sniehotta, Presseau, & Araújo-soares (2014) have criticized the TPB on the basis of simplicity. They point out that the exclusion of emotional decision making and other drivers of intention such as habit strength, self-determination, self-regulation and anticipated regret have been attributed to the variation in the correlation of the constructs of TPB to behavioural intention and behaviour.

This research modified the original TBP by excluding the relationship between PBC and behaviour. This is due to the fact this relationship is dependent on the extent to which the perceived behavioural control closely reflects the actual behavioural control (as outlined above) (Ajzen, 1991). This was deemed difficult to measure in a study of this nature which takes place over a limited period of time and the behaviour is self-reported, rather than observed. Also, the literature suggests that intention has a relatively higher correlation to behaviour (Armitage & Conner, 2001; Hassan et al., 2016; McEachan et al., 2011). Thus, excluding this relationship is unlikely to adversely affect the results of this study. In addition, conspicuous consumption is included as a social norm.

The methodological considerations, stated above, have been taken into account in formulation the measurement instrument for this particular study. The TBP model as applied in this study is represented in Figure 3.1 in Chapter 3.

The following sections review the existent literature on saving behaviour, conspicuous consumption, the black middle class in South Africa and conspicuous consumption and collectivism.

2.5 Saving

This section of this chapter reviews the literature on saving behaviour. In particular, it aims to overlay the constructs of the TPB by reviewing the literature on the impact of attitudes, social norms and perceived behavioural control towards saving behaviour.

2.5.1 Introduction

Historically, the study of saving behaviour resided in the field of economics (Eriksson & Hermansson, 2014; Wärneryd, 1989). In this discipline, saving was considered the residual after consumption (Eriksson & Hermansson, 2014) or refraining from consumption in one period in favour of later periods of consumption (Wärneryd, 1989). Early economic models of

saving behaviour assumed the rational human being as one who is able to maximise their consumption utility across time periods (Wärneryd, 1989). Consumption was considered to be driven by economic factors while saving was a result of psychological factors such as precaution or foresight (Lunt & Livingstone, 1991). As such, economics did not consider saving as a deliberate behaviour. Keynes, in 1936, posited that "the fundamental psychological law was that men are predisposed as a rule and on average to increase their consumption as their income increased, though to a lesser extent than the increase in income (Wärneryd, 1989, p.523).

The most prominent of the economic models on saving is the Life-cycle hypotheses (LCH) (along with Friedman's permanent income hypothesis (Palley, 2010)). The LCH posits that individuals distribute their life resources (income) evenly over their life-time (Wärneryd, 1989). Where current income is less than a constant proportion of life-time resources, individuals borrow (Wärneryd, 1989). Where current income is more than a constant proportion of life-time resources, individuals save (Wärneryd, 1989). The LCH failed to muster empirical testing due to its underlying assumption that humans were rational beings who could maximise their utility of consumption over their lifetime (Shefrin & Thaler, 1988). In an attempt to make the LCH more behaviourally realistic, the Behavioural Life-cycle hypothesis (BLCH) was developed (Shefrin & Thaler, 1988) (This will be elaborated on later in this review). The incorporation of other disciplines, such as psychology, in the study of saving behaviour, allowed for the inclusion of constructs such as attitudes, social norms and perceived behavioural control. This research sought to determine the antecedents of saving behaviour by the black middle class in South Africa. As such, this refers to the psychology of saving, rather than rational economic person as presented by the economics literature. Thus, savings theory that reside in psychology, rather than economics, are more relevant for this research.

2.5.2 Attitude and Saving Behaviour

The literature on savings attitudes suggests a complex relationship between saving attitudes and saving behaviour. Funfgeld & Wang (2009) found that varying combinations of the following factors: a) anxiety about money matters, b) interest in financial issues, c) analytical decision-making and d) self-control result in different saving behaviours. For instance, individuals with lower anxiety toward money matters and higher interest in financial issues are more likely to save. Furnham (1997) found that optimism towards personal finance tends to be a self-fulling prophecy. Thus a positive attitude towards saving should result in positive saving behaviour. A study on low-to-middle income households in the United States of America (USA) also found that the odds of regular saving increased 265% among respondents who had a positive attitude toward saving (Mauldin, Henager, Bowen, & Cheang, 2016). However, other empirical research appears to find a weak relationship between savings

attitudes and savings behaviour (Lindbeck, 1997; Wärneryd, 1989). Lindbeck (1997) posits that this is because "Maybe the social norm in favour of saving refers to a virtue that many people are not able to live up to, an example of so-called 'cognitive dissonance'" (p.376).

In relation to this particular study, of interest is the relationship between the attitude towards saving and the intention to save. While the literature of saving attitudes indicates an ambiguous relationship with saving behaviour, one can infer that a positive attitude to saving results in a positive savings intention. Although this may not always result in saving behaviour. The TPB, the theoretical framework underpinning this research, posits that a positive (negative) attitude, results in a strong (weak) behavioural intention, which in turn results in positive (negative) behaviour (Ajzen, 1991). This particular study sought to test what the black middle class in South Africa's attitude towards saving is and its impact on the intention to save and saving.

2.5.3 Social Norms and Saving Behaviour

Duesenberg's relative income hypothesis suggests that households look at their relative income position, rather than their absolute income when determining the consumption and saving behaviour (Wärneryd, 1989). Where households believe that their income is higher than others in their reference group, they tend to consume less and save more. Conversely, where household's believe their income is lower than their reference group, tend to consume more in a bid to catch up to the reference group (Lunt & Livingstone, 1991). The relative income hypothesis presents a model for the antecedents of savings behaviour that may be termed the economics equivalent of Veblen's Theory of conspicuous consumption, which resides in the social sciences. Veblen's Theory of conspicuous consumption states that members of lower social classes try to emulate the lifestyle of higher social classes through the purchase of goods (Veblen, 1899). Duesenberg's contribution links the TPB's construct of "social norm" to the savings literature. The TPB states that a positive (negative) social norm results in a strong (weak) behavioural intention, which in turn results in positive (negative) behaviour (Ajzen, 1991). Duesenberg goes further by characterising Veblen's conspicuous consumption as a social norm. This is of particular interest to this study as it aims to test whether conspicuous consumption has become a social norm among the black middle class of South Africa **and** whether this social norm has a moderating effect on saving intention and behaviour. Despite its social and psychological prowess in explaining saving behaviour, the relative income hypothesis failed to gain traction in the academic literature. This has been attributed to the lack of a framework, differentiated predictions and policy implications (Palley, 2010).

2.5.4 Perceived Behavioural Control and Saving

The Behavioural Life-cycle hypothesis (BLCH), referred to above, moves savings theory into the realm of psychology by introducing three elements: self-control, mental models and framing (Shefrin & Thaler, 1988). 1) Self-control: This refers to an individual's ability to control their temptation, garner will power and then defer immediate gratification. 2) Mental accounting is said to assist with maintaining self-control. Mental accounting suggests that households divide their income into three categories: current spendable income, current assets and future income. This categorisation makes some mental accounts more tempting than others. It also suggests that households may create rules of thumb for their consumption behaviour, which fosters self-control. 3) Framing refers to the categorisation of the mental accounts and that individuals varying their marginal propensity to consume by the different mental accounts (Shefrin & Thaler, 1988). There is a higher propensity to consume the current income "account" than the future income account, like children's education fund (Shefrin & Thaler, 1988). The BLCH is a foray into the realm of control beliefs and self-efficacy as outlined in the TPB (Ajzen, 1991). However, it too assumed an individual's ability to maximise consumption utility through their life-cycles (Eriksson & Hermansson, 2014). Consequently, this model also has limited applicability in the behavioural sciences. This research sought to determine the antecedents of saving behaviour among the black middle class, which does not incorporate the assumption of the rational person. Therefore, despite its inclusion of control beliefs and self-efficacy, the theory is limited in its applicability to this research.

The literature also found a relationship between self-efficacy and saving behaviour. Self-efficacy is defined as an individual's belief in their ability to succeed or their confidence to excel in a particular situation (Lown, 2011). Individuals with high levels of self-efficacy are likely to persevere through adversity and invariably succeed at a task. Financial self-efficacy refers to the level of confidence or assurance that an individual has in their ability to manage their financial affairs (Lown, 2011). A study among low-middle income households in the USA found that respondents with lower self-efficacy were 53% less likely to save, than respondents with higher self-efficacy (Lown, Kim, Gutter, & Hunt, 2015). While a study on Australian women found that women with higher self-efficacy were more likely to hold investment or savings accounts rather than credit card or loans (Farrell, Fry, & Risse, 2016). The literature suggests indicates that a strong sense of self-efficacy is positive for driving saving behaviour. However, Lown et al. (2015) caution that too much self-efficacy could result in overconfidence, which could result in no action being taken or excessive risk. Given that the TPB construct of PBC includes self-efficacy, this aligns with the TBP posit that a higher PBC bodes well for behavioural intention and as such behaviour (Ajzen, 1991). This researched sought to test the

black middle class in South Africa's perceived behavioural control towards saving and its impact on saving intention and behaviour.

2.5.5 Attitude, PBC and Saving

Further incorporating psychology into economic theories of saving, Katona's theory of saving stated that saving was a function of the "ability and willingness to save" (Wärneryd, 1989). The ability to save was deemed a function of disposable income, while the willingness to save was a result of how optimistic an individual felt about the economy (Lunt & Livingstone, 1991). Katona's contribution links the TPB's constructs of "attitude" and "perceived behavioural control" to the savings literature. This suggests that the black middle class in South Africa would have a positive perceived behavioural control towards saving and a negative attitude towards saving (given the outlook for the domestic economy over the coming five years (International Monetary Fund, 2017)). The research tested the attitude and perceived behavioural control toward saving and their impact on the intention to save and saving.

2.5.6 Summary

The existent literature on saving supports the TBP. The literature on saving attitudes suggests that positive saving attitude results in positive saving behaviour (Wärneryd, 1989) (although, at times there may be a disconnect between attitude and action); social norms towards saving also suggest a positive social norm towards saving results in positive saving behaviour (Wärneryd, 1989); and higher levels of self-control and self-efficacy result in positive saving behaviour (Lown, 2011; Shefrin & Thaler, 1988). This supports the TBP which states that positive (negative) attitude social norm and PBC towards the behaviour, the stronger (weaker) the behavioural intention and in turn the positive (negative) the saving behaviour (Ajzen, 1991).

The following sections review the existent literature on conspicuous consumption, the black middle class in South Africa and conspicuous consumption and collectivism.

2.6 Conspicuous Consumption as Social Norm

The theory of conspicuous consumption was coined by Thorstein Veblen in his seminal work: *Theory of the Leisure Class (1899).* Veblen (1899) states that "members of each stratum accept as their ideal of decency the scheme of life in vogue in the next higher stratum, and bend their energies to live up to that ideal" (p. 40). Each social class tries to emulate the consumption behaviour of the class above it, to such an extent that even the poorest people are subject to pressures to engage in conspicuous consumption" (Trigg, 2001, p.101). Cultural capital is said to differentiate among social classes and is defined "as the accumulated stock of knowledge about the products of artistic and intellectual traditions" (Trigg, 2001, p.104). Cultural capital is said to be the preserve of the wealthy, sophisticated and the upper class

(Trigg, 2001). Given that cultural capital can only be obtained through education and social upbringing, those who aspire to this class use “less legitimate” methods to signal their status (Trigg, 2001). That is, “people spend money on artefacts of consumption in order to give an indication of their wealth to other members of society” (Trigg, 2001, p.101).

While Veblen’s theory of conspicuous consumption is dated, the most recent addition to the theory of conspicuous consumption was the term “visible consumption” “…we study households’ consumption of items which are readily observable in social interactions, and which are portable across interactions. We call these goods “visible consumption”. Prompted by Veblen’s insight…” (Charles, Hurst, & Roussanov, 2009, p.63). This is merely different terminology, rather than a new theory of conspicuous consumption - underscoring the dearth of theory development in this field. Thus, it remains the most applicable and relevant theory to define this type of consumer behaviour.

The literature on the black middle class in South Africa has focused on the buying behaviour of this emerging social class. Much of this literature has characterised the spending choices of the black middle class as conspicuous consumption, as defined by Veblen and Bourdieu (Burger et al., 2015). This research specifically sought to determine whether conspicuous consumption has become a social norm among the black middle class. In turn, determining its impact on the saving behaviour of South Africa’s black middle class.

The following sections review the existent literature on the black middle class in South Africa and conspicuous consumption and collectivism.

2.7 Conspicuous consumption and South Africa’s Black middle class

Kaus (2013) explored whether conspicuous consumption was specific to the tastes and preferences of specific South African race groups. South Africa’s population, broadly, consists of four racial groups – Black African, Black Coloured, Black Indian and White (South Africa: Department of Labour, 1998). The paper found that coloured and black South Africans spent more on visible consumption than their white South African counterparts (Kaus, 2013). Krige (2015), using a case study of a black male from Soweto, found that conspicuous consumption translated perceived private wealth into social capital. Chipp, Kleyn, & Manzi (2011) also found that conspicuous consumption characterised the spending behaviour of black South Africans. That while relative deprivation drove the spending behaviour, initially, that it continued post the acquisition of the houses and the cars (Chipp et al., 2011) .

Since 2007, researchers have aimed at dispelling views that the spending behaviour by the black middle class reflects conspicuous consumption. Rather the behaviour reflects asset accumulation by black people, who historically were legally prohibited from participating in the

formal economy (Burger et al., 2015; Nieftagodien & van der Berg, 2007). Thus suggesting a spending pattern rather than a preference, which conspicuous consumption would be considered (Nieftagodien & van der Berg, 2007). Burger et al. (2015), stratifies the black middle class into those that are *established* and those that are *emerging*. The *emerging middle class* are those individuals/households who are new to the middle class. They have yet to accumulate assets that are associated with the middle-class lifestyle (houses and cars). Conversely, the *established middle class*, have had a longer duration as part of the middle class and have accumulated said goods (Burger et al., 2015). The paper argues that these two sub-groups, of the black middle class, have different spending patterns. The members of the *emerging black middle class* suffer an asset deficit, which is rectified through conspicuous consumption. While the *established middle class*, who have already accumulated these assets, do not display conspicuous consumption in their purchasing behaviour (Burger et al., 2015). The paper concludes with the view that conspicuous consumption is a result of new members of the middle class asserting their status, rather than a social norm attributable to the black middle class (Burger et al., 2015). Thus, the spending patterns of the black middle class does not reflect conspicuous consumption but rather asset accumulation (Burger et al., 2015). This research sought to determine whether conspicuous consumption has become a social norm among the black middle class in South Africa and its impact of this social norm on saving behaviour by this social class.

The last section reviews the literature on collectivism.

2.8 Collectivism as a Social Norm

The literature suggests that individuals who are part of collectivist societies are more prone to social influences in their buying decisions (Kongsompong, Green, & Patterson, 2009). Said differently, individuals who subscribe to collectivism are more likely to follow social norms in their purchasing decisions. African people, a group to which black people in South Africa belong, have historically been characterised as espousing the principle of Ubuntu, which is loosely translated as “I am because you are” (West, 2014). It is considered a communitarian philosophy (West, 2014). Accordingly, black South Africans are more likely, relative to other race groups in South Africa, to be susceptible to making buying decisions based on the prevalent social norm. This is of particular interest to this research as it aims to ascertain whether conspicuous consumption has become a social norm among the black middle class in South Africa and its impact on the intention to save and in turn negative saving behaviour.

Further interest to this research, is a finding that collectivist cultures are less likely to save for retirement. In particular, the presence of informal savings and credit traditions negates the need for individuals to saving outside of the community (Saad-Lessler & Richman, 2014).

These informal savings practices are likened to ”stokvels” in South Africa, which provide an informal mechanism for saving and provision of credit among black South Africans. This research does not aim to test this specifically but merely presents it as context.

2.9 Conclusion

This chapter reviewed saving trends in South Africa, the existent literature on savings in South Africa, the definition of the middle class, the black middle class in South Africa, the TPB, saving behaviour, conspicuous consumption, conspicuous consumption and the black middle class in South Africa and collectivism. The literature indicates that savings rates in South Africa are low relative to emerging market peers (International Monetary Fund, 2017; Reserve Bank of South Africa, 2017). This is of significance because low domestic savings rates curtail a country’s ability to fund its investment expenditure and consequently, its economic growth (Schwab, 2015; Solow, 1956). The TPB, which is the theoretical framework employed in this research, posits that attitude, social norm and perceived behavioural control towards saving drives the behavioural intention to save, which in turn drives saving behaviour (Ajzen, 1991). The literature on drivers of saving behaviour presents economic and psychological drivers of saving behaviour (Eriksson & Hermansson, 2014; Lunt & Livingstone, 1991; Shefrin & Thaler, 1988; Wärneryd, 1989). Overall, the literature on saving behaviour support the tenants of the TPB. That is, that attitude, social norm, and perceived behavioural control affect saving behaviour (Funfgeld & Wang, 2009; Lindbeck, 1997; Lown, 2011; Lunt & Livingstone, 1991; Shefrin & Thaler, 1988; Wärneryd, 1989). The scant research on saving behaviour in South Africa presents conflicting results. These papers have applied econometric techniques to national savings statistics. Only one of these papers used survey data (Zwane et al., 2016). There is no consensus of whether income and savings have a positive relationship (Amusa, 2014; Chipote & Tsegaye, 2014; Mongale et al., 2013; Simleit et al., 2011; Syden, 2014; Zwane et al., 2016). The literature on savings in South Africa has yet to present what motivates individuals to save. In addition, the research in South Africa has yet to apply the Theory of Planned Behaviour to savings behaviour in South Africa and specifically, among the black middle class. This research fills this gap in the literature.

Further, much of the literature on South Africa’s black middle class has focussed on its spending behaviour (Burger et al., 2015). Specifically, this behaviour has been characterised as conspicuous consumption (Burger et al., 2015; Nieftagodien & van der Berg, 2007). More recent literature, since 2007, suggests that the spending habits of the black middle class should be characterised as asset accumulation, rather than conspicuous consumption. This research sought to determine whether conspicuous consumption has indeed become a social norm among the black middle class and its impact on saving behaviour. Therefore, this literature fills the gap in the literature by 1) Providing research on the saving behaviour of the

black middle class, rather than on the spending trends of this social class; 2) Testing whether conspicuous consumption has become a social norm among South Africa's black middle class.

The next chapter outlines the hypotheses that this research tested.

3 Chapter 3: Hypotheses

3.1 Introduction

Chapter 2 reviewed the existent research on the antecedents of saving behaviour by the black middle class in South Africa. This chapter outlines the hypothesis that are derived from the literature. These hypotheses are derived from the Theory of Planned Behaviour (TPB) (Ajzen, 1991) and sought to answer the research question. Also, the hypothesis set to test whether conspicuous consumption has become a social norm among the black middle class in South Africa and its impact on saving behaviour. The hypothesis are as follows:

3.2 Attitude.

The literature suggests a weak relationship between attitudes toward saving and saving behaviour. A similar study, conducted in Germany, showed that the higher the perceived importance of saving, the higher the intention to save (Ruefenacht, Schlager, Maas, & Puustinen, 2015). Further, the TPB posits that a positive attitude results in a positive behavioural intention (Ajzen, 1991). This research hypothesised that the black middle class in South Africa has a positive attitude towards saving, which positively influences their behavioural intention to save.

H1: *A positive attitude towards savings leads to an increased behavioural intention to save.*

3.3 Social norm towards saving.

African societies, to which South African's black population belong, are characterised as collectivist in their culture (West, 2014).The literature on collectivist societies suggests that buying decisions are relatively more influenced by social norms (Kongsompong et al., 2009). Where the social norm towards saving places additional pressure on the individual to save, there is a positive relationship to the intention to save and the social norm (Ruefenacht et al., 2015). The TPB posits that a positive social norm results in a positive behavioural intention (Ajzen, 1991). This research hypothesised that the black middle class in South Africa has a positive social norm towards saving, which positively influences their behavioural intention to save.

H2: *A positive social norm towards saving leads to an increased behavioural intention to save*

3.4 Conspicuous Consumption

Studies on the black middle class in South Africa focus on its spending behaviour which has been characterised as conspicuous consumption. The literature on saving in South Africa attribute the low savings to factors such as the easy access to credit and conspicuous consumption (Syden, 2014; Zwane et al., 2016). This research sought to test whether

conspicuous consumption has become a social norm among the black middle class in South Africa and hypothesised that it has a negative relationship with the intention to save.

H3: *Conspicuous consumption, as a social norm, leads to a negative impact on the behavioural intention to save*

3.5 Perceived Behavioural Control.

Literature on saving define the perceived behavioural control over saving as the ability, which includes having the income and the time. Financial literacy is also expected to result in improved perceived behavioural control (Funfgeld & Wang, 2009). Research on income and saving in South Africa is ambiguous. A cross-sectional study found a negative relationship between saving and income(Chipote & Tsegaye, 2014; Simleit et al., 2011), while a panel study found that there is a positive relationship between income and saving (Mongale et al., 2013; Syden, 2014; Zwane et al., 2016). Ruefenacht et al. (2015) found that increased anxiety toward saving decreased the saving intent, while income had a positive relationship with saving. The TPB posits that a positive perceived behavioural control results in a positive saving intention (Ajzen, 1991). Therefore, this researched hypothesised that a positive PBC by South Africa's black middle class should result in a positive behavioural intention.

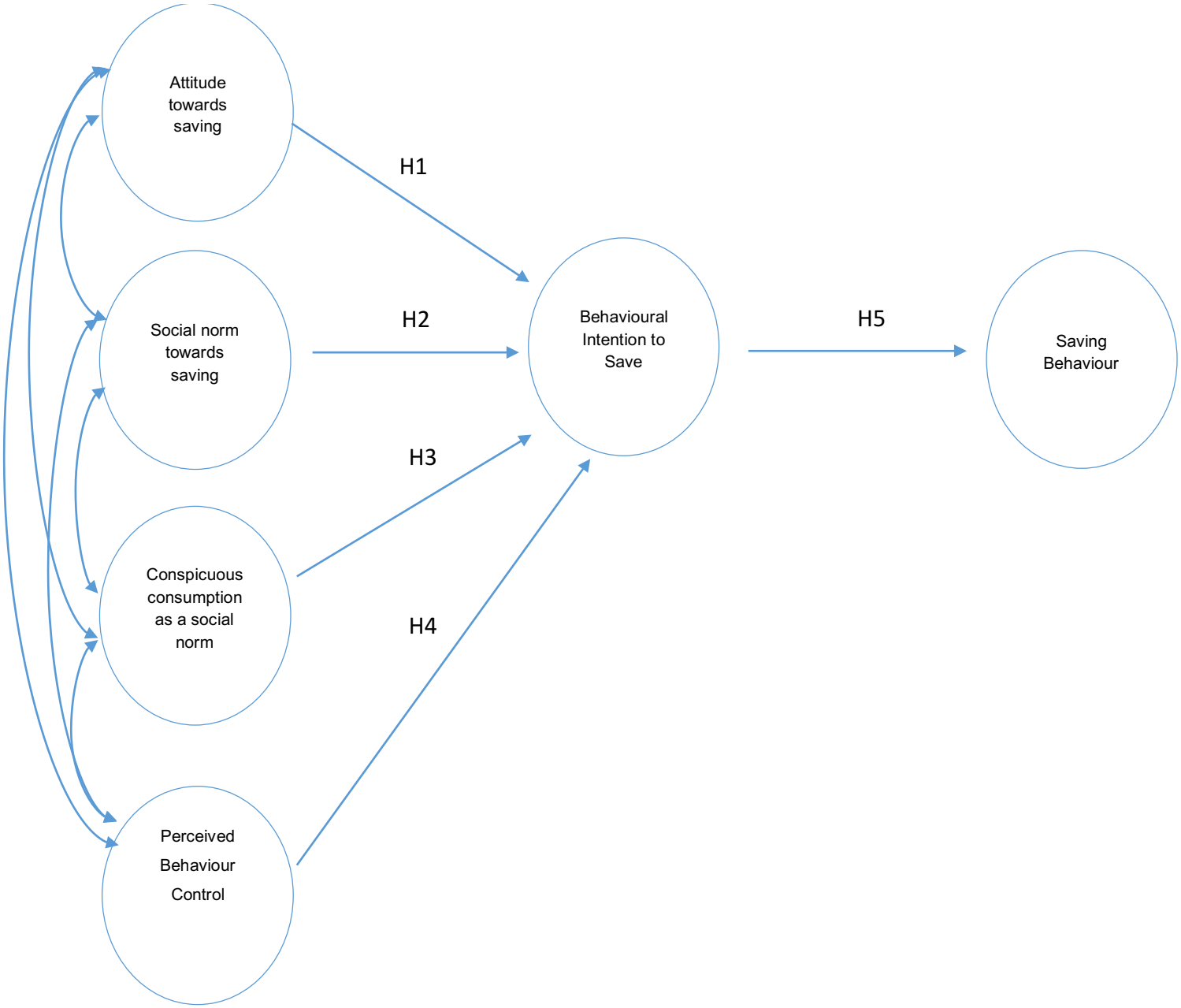
H4: *Positive perceived behavioural control leads to an increased behavioural intention to save*

3.6 Behavioural Intention.

The TPB posits that a positive behavioural intention results in action being taken (Ajzen, 1991). Thus, a positive attitude, social norm and perceived behavioural control by South Africa's middle class should result in a positive behavioural intention. This in turn should result in positive saving behaviour among the black middle class in South Africa.

H5: *A positive behavioural intention has a positive influence on saving behaviour.*

Figure 3.1: Author's modification to Theory of Planned Behaviour



Source: Author's modification from Ajzen, 1991

4 Chapter 4: Research Methodology

4.1 Introduction

This research sought to determine the antecedents of saving behaviour by South Africa's black middle class. It also sought to determine whether conspicuous consumption has become a social norm among the black middle class and its impact on saving behaviour. To this end, Chapter 3 outlined the five hypotheses that were tested by this research. These hypotheses are derived from the literature and the Theory of Planned Behaviour (TPB). This chapter outlines the research methodology followed in order to test these hypotheses.

The chapter begins with the research design, followed by the relevant population, unit of analysis and sampling method and size. Thereafter a discussion on the measurement instrument, data gathering process, reliability and consistency and data analysis will follow. Lastly, the chapter concludes with a discussion on the limitation of the methodology.

4.2 Research Design

The research philosophy was critical realism, as it aimed to explain the "structure and relations beneath the surface of social reality" (Saunders & Lewis, 2012, p106). Specifically, this research aimed to understand the antecedents of saving behaviour among the black middle class – the structure and relations beneath the surface of the social reality of saving behaviour.

The research approach was deductive as it aimed to test a "theoretical proposition" (Saunders & Lewis, 2012, p 108). The TBP, as the preferred theoretical framework, was operationalized to understand causal relationships which drive saving behaviour among the black middle class in South Africa. The theoretical constructs of attitude, social norm, conspicuous consumption (as a social norm) and perceived behavioural control were tested to determine their impact on the behavioural intention to save (Ajzen, 1991). Behavioural intention was then tested to determine its impact on saving behaviour (Ajzen, 1991). These theoretical constructs from the TPB were then were distilled into five hypotheses.

The research type was explanatory because this paper aimed to explain the drivers of savings behaviour by the black middle class in South Africa by understanding the causal relationships between the antecedents of saving intention and saving behaviour (Saunders & Lewis, 2012). Specifically, the paper aimed to provide an explanation for the causal relationship between the attitudes to saving, social norm to saving, conspicuous consumption as a social norm and the perceived behavioural control and their impact on behavioural intention to save and saving behaviour (Ajzen, 1991).

The research made use of a survey because this study aimed to collect large quantities of data in a structured manner to enable the generalisability of the findings (Saunders & Lewis,

2012). This strategy has also been employed in previous studies (Ruefenacht et al., 2015) that apply the TPB which is the theoretical framework that was tested in this research. Survey research allows for statistical techniques to be applied to data and for the results to be generalised (Saunders & Lewis, 2012), which was the intention of this research.

The research took place over a finite period of time (three months) and quantitative techniques were applied to the data. A questionnaire was administered to take a snapshot of the savings behaviour of the black middle class in South Africa over a 12-week period in 2017. The results of which were tested using structural equation modelling (SEM). Thus, the research was a mono-method, cross-sectional quantitative study (Saunders & Lewis, 2012).

4.3 Population

The population of a study refers to the collection of all the possible data available for the variable under study (Wegner, 2016). The population for the study was black individuals in South Africa who are characterised as middle class based on two of three criteria. Income criteria: Individuals who earn between R20,125 – R73,750 per month after-tax. This range was derived from the Tax Tables (National Treasury of South Africa, 2017) and reflects the proportion of the population that contributes 54.3% of income tax to the fiscus. Occupational and educational criteria: Occupational classifications analogous with middle-class professions and/or some level of tertiary education (Bonnefond et al., 2015). Self-identification criteria: individuals who self-identify as being part of the middle class. This was considered to be the applicable population as it reflects the collection of all possible respondents who are of interest to the study (Wegner, 2016).

4.4 Unit of Analysis

The unit of analysis refers to the unit at which the data is collected (Creswell, 2012). The applicable unit of analysis was the individual as the study measured the saving behaviour of black middle-class individuals in South Africa. The survey was administered to and responded to by individuals. While it could be argued that households make the decision to save, the social norm construct incorporates the influence of the household (and rest of the reference group) in the theoretical framework (Ajzen, 1991). In a similar study in Germany, the individual was the unit of measurement (Ruefenacht et al., 2015). Thus, the individual was deemed the appropriate unit of analysis.

4.5 Sampling Method and Size

A sample is a sub-group of the population under study (Creswell, 2012). Sampling method refers to how the sample was identified. Sampling methods are either classified as: 1) probability sampling, where the entire population is known and access to it is readily available or 2) Non-probability sampling, where access to the entire population is not readily available

(Creswell, 2012). Convenience and snowballing sampling methods are classified as non-probability sampling methods (Creswell, 2012). Convenience and snowball sampling were deemed the applicable sampling methods for this research because there was no sampling frame of the black middle class in South Africa. Hence, requiring a non-probability sampling technique – the access to the entire population is not readily available (Creswell, 2012). These sampling techniques were deemed to be most appropriate in acquiring a large sample size within the limited amount of time within which to complete the research (Creswell, 2012).

A total of 215 responses were received. Twenty-five of the responses identified themselves as White, Indian or Coloured. As the focus of the study is African black middle class South Africans the twenty-five individuals were excluded. A further 14 respondents, who did not meet the income criteria (either too low or too high) were excluded. Lastly, a further five respondents who did not meet either of the three criteria - income, occupation nor self-identification - were excluded. Therefore, the sample upon which the analysis was conducted was 171 respondents. These respondents met two of the three criteria and identify as black. Given that the applicable statistical techniques (SEM) require a sample size of at least 100 respondents (Hair, Black, Babin, & Anderson, 2010, p.637) the number of respondents was considered adequate. In light of the fact that there is no sampling frame and that convenience and snowball sampling were employed to an electronic sample, a sampling error cannot be reported (Creswell, 2012).

4.6 Measurement Instrument

Questionnaires allow researchers to collect data in a standardised format which could be analysed using statistical techniques (Saunders & Lewis, 2012). This study employed an online questionnaire to determine the antecedent to saving behaviour by the black middle class through the lens of the TPB. This is in order to collect standardised responses to which statistical analysis could have been conducted, which could be generalised. In addition, Ajzen (2010), the author of the TPB, constructed a questionnaire to test the theory. In addition, studies found in the literature exploring the TPB make use of a questionnaire as a data collection method (Ozkan & Kanat, 2011; Ruefenacht et al., 2015).

The questionnaire applied in this research aimed at measuring constructs of the TPB in understanding the saving behaviour of the black middle class in South Africa. It also sought to determine whether conspicuous consumption has become a social norm among the black middle class in South Africa. The constructs were the attitudes towards saving, the social norms towards saving and conspicuous consumption as a social norm, the perceived behavioural control and behavioural intention (Ajzen, 1991). The scales for the questionnaire

were derived and adapted from the literature (Ajzen, 2010; Ruefenacht et al., 2015; Watanabe, Berry, Willows, & Bell, 2015). These articles tested the TPB.

4.7 Data Gathering Process

The physical questionnaire was converted into an electronic online questionnaire which was distributed to individuals who met the population criteria using the Google Forms platform. Google Forms distributes the questionnaire via email, which requests the individual to respond to the questionnaire online. Convenience and snowball sampling were employed to ensure a large sample size was obtained (Creswell, 2012).

The questionnaire for this study was split into three sections. The first part provided a brief outline of the research and its purpose, an assurance of confidentiality and anonymity, and highlighted that participation in the survey was voluntary.

The second part of the questionnaire contained demographic indicators. This was to ensure that the study measured the intended population and to compile descriptive statistics for context. The demographic indicators were age, race, gender, income, occupation and educational attainment and whether the respondent self-identifies as middle class. This section also enquired whether respondents saved and their preferred savings vehicles.

The third part of the questionnaire measured the constructs: attitudes towards saving (H1); Social norms towards saving (H2); Conspicuous consumption, as a social norm (H3); perceived behavioural control (H4); and their influence on behavioural intention. And the impact of behavioural intention on saving behaviour (H5) (Ajzen, 1991). Reflective questions were used and tested on an applicable 7-point Likert scale, where 1 represented strong disagree and 7 strongly agree (Ajzen, 2010). This section consisted of 33 questions measuring attitude (Q1-Q7), measuring social norm towards saving (Q8-13), conspicuous consumption as a social norm (Q14- 20), perceived behavioural control (Q21 – Q29) and behavioural intention (Q30-Q33) (Ajzen, 2010; Ruefenacht et al., 2015; Watanabe et al., 2015).

A pilot electronic questionnaire was emailed to 10 individuals. The feedback consisted of formatting errors, spelling mistakes and functionality with the questionnaire (allowing the respondent to submit despite not having answered all questions). These were all subsequently corrected. Although the length of the questionnaire was deemed appropriate to ensure consistency of the responses, it may have resulted in respondent fatigue but there was no evidence to indicate that this occurred.

Thereafter an electronic questionnaire was emailed to a list of 43 individuals who are within the researcher's network and who met the criteria. These respondents were asked to email the survey to members of their network. These forwarded (snowballed) responses were captured directly to the questionnaire via Google Forms. As the number slowed, following

these two methods, the survey was placed on electronic platforms such as Facebook and LinkedIn. These responses were also captured directly to the questionnaire via Google Forms and imported into an Excel file.

4.8 Data Analysis

This section outlines how the data was analysed once extracted into the Excel file. This section covers the preliminary data cleaning, the test for reliability and internal consistency, the process of reducing the questionnaire into fewer dimensions and the statistical technique employed on the data.

4.8.1 Editing

The data was then edited to ensure that the intended sample population was being analysed. A total of 44 respondents were excluded for not meeting either the race nor two of the three qualifying criteria (income, occupation and education and self-identification). The question on "Income" included an "Other" option where respondents entered their own income. These were replaced with the applicable income categories (see Appendix 4.1 for questionnaire). Where a respondent entered their own income category, the lower-bound of the category was assumed to be closer to the correct income. This is due to a selective perception (Robbins & Judge, 2015). Generally, individuals tend to under-report their income because they believe they are underpaid.

Where a respondent recorded a response of "Strongly agree" or "Strongly disagree" the excel extract recorded the response as "7(Strongly agree)" or "1(Strongly disagree)".

4.8.2 Coding

All the categorical data was then coded which consisted mainly of the descriptive statistics of Age, Gender, Income, Occupation, Education and whether an individual considered themselves middle class. Thereafter, the questions that were reverse scales were re-coded to reflect this (Q21-Q25). The descriptive statistics were calculated off categorical data (Creswell, 2012). While, the statistical analysis was conducted off interval data, which was derived from the Likert scales (Creswell, 2012). See the detailed coding presented in Appendix 4.2.

4.8.3 Data Entry

There was no missing data in the third section of the questionnaire, which measured the constructs. However, there was a missing data point for the descriptive statistics – either gender or income or education or occupation. As this related to the qualifying criteria (as detailed above) and the descriptive statistics, it was not necessary to enter missing data in order to conducts the statistical analysis (Field, 2009).

4.8.4 Validity

Each of the questions were tested for validity. This was created by adding up all the questions (items) for a particular construct, known as the Item-total score (Field, 2009). Thereafter, bivariate correlations were run between each question per construct and between the item-total score for the construct (Field, 2009). All the constructs were found to be valid. Results are presented in the following chapter.

4.8.5 Reliability: Internal Consistency of Scales

The questionnaire employed in this research was aimed at testing the Theory of Planned Behaviour (TPB). In particular, the constructs of attitude towards saving, social norm towards saving, conspicuous consumption, as a social norm, the perceived behavioural control and the behavioural intention towards saving (Ajzen, 1991). Although the scales for the questionnaire were derived and adapted from the literature (Ajzen, 2010; Ruefenacht et al., 2015; Watanabe et al., 2015), they still had to be tested for internal consistency. Cronbach's alpha is widely used to test for the internal consistency of scales (Bonnet & Wright, 2015). In essence, Cronbach's alpha tests whether all the items in a scale are measuring the same construct – are they internally consistent (Bonnet & Wright, 2015). The literature states that a Cronbach alpha of 0.7 and above (Field, 2009; Peterson, 1994), per scale, indicates that the items are consistent. Cronbach alpha tests were run in SPSS for the five constructs - attitude towards saving, social norm towards saving, conspicuous consumption, as a social norm, the perceived behavioural control and the behavioural intention towards saving.

4.8.6 Confirmatory Factor Analysis

In order to reduce all the items of the questionnaire, Confirmatory Factor analysis (CFA) was conducted (Field, 2009; Ruefenacht et al., 2015). This allows for a more succinct analysis, rather than analysing each of the 33 questions (Field, 2009). Each construct was analysed separately and factor analysis was applied for each of the items within a construct. Using SPSS each item, per construct, was checked to ensure that the correlations are above 0.3 (Field, 2009). Thereafter, the KMO score was checked to ensure that it was above 0.5 and Bartlett's test for sphericity was statistically significant (Field, 2009). The Eigenvalue of one rule was then applied. This gives an indication of how many factors explain a significant part of the variance (Field, 2009). Thereafter, items were grouped according to the factors that they loaded the highest on. These items were then grouped, renamed, the responses were averaged to reflect one factor (Field, 2009). A CFA is also conducted as part of the SEM, in order to test the measurement model and will be discussed in more detail in the results section.

4.8.7 Statistical Analysis

4.8.7.1 General Data Assumptions

Graphical Representations – Histograms of the constructs indicate that the data may not be normally distributed. This is particularly apparent for the attitude towards saving and behavioural intention. See detailed outputs presented in Appendix 4.3.

Missing data – There were no missing data points.

Normality – Similar to the histograms, the P-P plots indicated that the constructs, other than Perceived Behavioural Control, do not display a normal distribution. The values for skewness and kurtosis, which should be close to zero for a normal distribution (Field, 2009), confirm that the individual questions and the constructs are not normally distributed. Calculating z-scores and conducting significance tests for skewness and kurtosis was not required as the sample is relatively large – close to 200 (Field, 2009). Finally, a Kolmogorov-Smirnov (K-S) test for normality was conducted (See detailed outputs presented in Appendix 4.4). All the questions and constructs, other than PBC, were found to be significant indicating that the data is not normally distributed (Field, 2009). The implications of this are discussed below.

Violation of the assumptions – The normality assumption is the only assumption that does not hold. This could be due to the nature of the questions. For instance, the majority of a population are likely to deem saving behaviour as important. Thus the responses would be skewed towards "agreeing". While there are options for transforming the data, the researcher deemed this not to be necessary because:

1) The sample size is relatively large (171 – almost 200) and as such normality is assumed in large sample sizes (Hair et al., 2010).

2) The sample size met the criteria where normality does not apply if the sample size shows at least 15 responses per construct (Hair et al., 2010). In the case of this research, this rule of thumb has been exceeded with 43 responses per construct.

3) A data transformation such as log could be applied to transform the data to be normally distributed. However, this would change the hypotheses as the meaning of what is being measured would be different from what was initially measured (Field, 2009). Thus, the researcher did not employ any transformations to the data to correct for the assumption of normality being violated.

Homogeneity of variances – This refers to the assumption that dependent variables display equal range of variance as independent variances – the equality of variances (Hair et al., 2010). Using Levene's test, the constructs were all found to be not statistically significant which accepts the null hypothesis that variances are equal (Field, 2009). Similarly, for the factors.

Thus the assumption of homogeneity of variances holds. See detailed outputs presented in Appendix 4.5.

Linearity – Correlations represent a linear relationship between variables. Where the relationship is non-linear a correlation measure underestimates the strength of the relationship (Hair et al., 2010). Linearity is tested by identifying a linear relationship in the scatterplots of the constructs (Field, 2009). The scatterplots, of constructs against behavioural intention, do not display any particular pattern in the data. This suggests that the assumption of linearity holds (Field, 2009). See detailed outputs presented in Appendix 4.6.

Autocorrelation – This refers to the residuals of observations being uncorrelated or independent (Field, 2009). The applicable test is the Durbin-Watson test, where a score of 2 indicates uncorrelated residuals -the range of scores is 0-4 (Field, 2009). The constructs of attitude, social norm, conspicuous consumption as a social norm, perceived behavioural control were regressed against behavioural intent. A Durbin-Watson score of 1.748 was obtained. This suggests that the residuals are independent. See detailed outputs presented in Appendix 4.7.

4.8.7.2 Structural Equation Modelling (SEM)

Structural equation modelling (SEM) is a "family of statistical models that aim to explain the relationship among multiple variables. It examines the structure of interrelationships as expressed in a series of equations. These equations depict all the relationships among the constructs."(Hair et al., 2010, p.609). In particular, SEM allows for a construct or variable to be both a dependent and independent variable within the same structural equation (Hair et al., 2010). While other multivariate techniques, such as regression, also allow for the estimation of the impact of an independent variable on a dependent variable (the coefficient), they only allow for the specification of one dependent variable at a time in an equation (Hair et al., 2010). Whereas, in SEM all relationships are computed at the same time with multiple dependent variables (Hair et al., 2010). This particular characteristic made SEM the appropriate test for this research. This research aims to determine the impact of the constructs: attitude towards saving, social norm towards saving, conspicuous consumption, as a social norm, and perceived behavioural control and their impact on behavioural intention. Thereafter determining the impact of behavioural intention on saving behaviour. Thus behavioural intention becomes a dependent and independent variable. SEM is also used in the literature testing the TPB (Ozkan & Kanat, 2011; Ruefenacht et al., 2015). Underscoring that it is the appropriate statistical technique to employ for this study, which sought to understand the saving behaviour of the black middle class in South Africa through the lens of the TPB.

SEM consists of two parts – the measurement model and the structural model. The measurement model consists of the items that make up the constructs (Hair et al., 2010). In order to test how well items, fit with the construct, confirmatory factor analysis is employed (Similar to the reduction conducted above) (Hair et al., 2010). The measurement model automatically assumes and tests correlations between all the constructs (Hair et al., 2010). The structural model consists of the relationships as specified in the theoretical model (Hair et al., 2010). Regression modelling is employed here in order to determine the coefficients of the various relationships (Hair et al., 2010). Thus, the SEM output gives an estimation of the coefficients of all the constructs, which construct has the biggest impact on behavioural intention and whether it is statistically significant and the extent to which behavioural intention impacts behaviour and whether that relationship is statistically significant.

Overall model fit metrics for the measurement and structural model are also important in interpreting the results of SEM. Model fit is determined by the extent to which the covariances of the estimated model are the same as the covariances of the observed model (Hair et al., 2010). The SEM calculates what the covariances should be for the population and corrects for any error and then compares these covariances with those obtained from the sample (questionnaire) (Hair et al., 2010). The larger the difference between the two, or residual, as they are classified, the worse off the overall model fit (Hair et al., 2010). Thus, the SEM output will provide an indication of whether the TPB was the appropriate model and provide an estimation of which construct: attitude, social norm, conspicuous consumption as a social norm or perceived behavioural control has the biggest influence on behavioural intention to save. And what impact behavioural intention has on saving behaviour (and whether all these relationships are statistically significant). This is what this research sought to ascertain further underscoring SEM as the appropriate technique for this research.

Measurement Model

In order to test the measurement model, each construct and respective questions were uploaded into SPSS AMOS software. Each of the constructs – Attitude, Social Norm, Conspicuous Consumption, Perceived Behavioural Control and Behavioural Intention – were correlated with each other. The options: Standardised estimates and squared multiple correlations were selected and the model was run. This produced χ^2, critical ratios, factor loadings, R^2 for each question relative to its construct and the fit indices. Following iterations of removing questions with low factor loadings and R^2 (Field, 2009; Hair et al., 2010), the final measurement model was specified and found to have a good fit. This meant a structural model could be estimated.

Structural Model

The structural model reflects the behaviour as defined in the theory (Hair et al., 2010). This was conducted in SPSS AMOS software. Each of the constructs was correlated with each other and saving behaviour was included in the model. Behavioural Intention became an exogenous variable because its impact on saving behaviour was now determined. The options: Standardised estimates, squared multiple correlations, sample moments and residual moments were selected and the model was run. This produced χ^2, critical ratios, factor loadings, R^2 for each question relative to its construct and the fit indices. The final measurement model was specified and found to have a good fit.

Sample size

This study was conducted based on 171 respondents. While the rule of thumb for SEM is a minimum respondents of 200, there are instances where smaller sample sizes are appropriate (Hair et al., 2010). Where there are less than seven constructs, communalities (average variance error) of 0.5 and no under-identified constructs require a minimum sample size of 150 respondents (Hair et al., 2010, p.637). Thus, this research meets this criterion and the sample size is deemed adequate to continue employing SEM to the model.

4.9 Limitations

Sampling technique*:* There are disadvantages that apply to convenience and snowball sampling. The sample may be unrepresentative of the population if the researcher's network is not wide enough (Wegner, 2016). This could result in a statistical bias in the findings (Wegner, 2016). Specifically, the researcher's network are largely professionals with a tertiary degree within formal employment within the age range 30 – 35 years old. Therefore, this research may be biased toward that segment of the population. In addition, the limitation of this non-probability sampling technique is the inability to calculate the sampling error (Wegner, 2016).

Sample size: While the sample size is large enough to apply the SEM technique, it falls below 200 respondents. This may affect the results of the SEM. In particular, Byrne (2010) points out that relatively small sample sizes may result in findings of non-significant parameters.

Measurement Instrument: Using an online questionnaire, which ensures anonymity, makes it difficult to ensure that each individual only answers the questionnaire once – ensuring there are unique respondents (Wejnert & Heckathorn, 2008). Thus, there may be respondents who answered the questionnaire more than once. Although it was the intention of the research not to limit the types of saving, that savings was not explictly defined in the questionnaire could result in divergent views on what is considered saving behaviour. This could have biased the results.

Data Gathering: Fortuitously the highest income category was omitted from the questionnaire. An "Other" option was included, which allowed respondents to enter applicable income. This allowed the researcher to incorporate individuals who fell in this income bracket. However, one respondent specified a wide income band (50,000-100,000). The upper-band falls out of the requisite income band. This response was included on the assumption that respondents tend to underestimate their income (Robbins & Judge, 2015). Thus, the respondent's income was likely closest to R50,000.

The responses related to saving behaviour and conspicuous consumption may be biased to a positive response. This is because when questionnaires are self-reported, especially when relating to socially acceptable behaviour, the responses are biased towards what is deemed socially acceptable (Hassan et al., 2016). Thus, the responses may not be accurate or reflect reality. As such, the data may reflect an inconsistency between responses to the constructs and the saving behaviour. Similarly, the conspicuous consumption responses may not be accurate.

Data Analysis: While the literature allows for assumption of normality, where the sample size is large enough, the violation of the normality assumption may still have an impact on the results. This may affect the statistical significance of the results (Field, 2009).

SEM: SEM is sensitive to multicollinearity, non-normality, small sample sizes and missing data points (Ozkan & Kanat, 2011). These could hamper the reliability or interpretive power of the results (Ozkan & Kanat, 2011). In addition, SEM models are sensitive to model misspecification (Martínez-López, Gázquez-Abad, & Sousa, 2013).

The χ^2 test statistic is sensitive to the number of observed variables and the sample size. The more observed variables and/or the larger the sample size, the more likely the statistic may return a statistically significant result (Hair et al., 2010). Consequently, Hair et al. (2010) suggest that goodness-of-fit indices be employed in conjunction with the χ^2 test statistic . However, these metrics are based on rules of thumb that have been applied over time, which may not necessarily have been developed statistically (Hair et al., 2010). In addition, the plethora of fit indices allows researchers to choose indices that best fit their research – hampering independence and comparability across research papers (Hair et al., 2010).

4.10 Conclusion

This research sought to determine the antecedents of saving behaviour among the black middle class in South Africa, through the lens of the Theory of Planned Behaviour (TPB). Five hypotheses were derived from the TBP in order to answer the research question. This chapter outlined the methodology followed in gathering and analysing the data in order to test these hypotheses. This included an exposition of the research design, relevant population, unit of

analysis and sampling method and size. Thereafter, a discussion on the measurement instrument, data gathering process, reliability and consistency and data analysis. Lastly, the chapter concluded with a discussion on the limitations of the methodology and their impact on the results of the analysis. The following chapter presents the results of the analysis.

5 Chapter 5: Results

5.1 Introduction

Chapter 4 presented the methodology employed to conduct this research. The chapter included a rationalisation of chosen the methodology and statistical analysis. This chapter presents the results of the research based on the responses received from the online survey. Specifically, this research sought to determine the antecedents of saving behaviour among the Black middle class in South Africa by applying the Theory of Planned Behaviour (TPB) as a theoretical framework. To this end, five hypotheses (as outlined in Chapter 3) were tested. This chapter presents the sample distributions of the demographic variables, descriptive statistics to present the context, the outputs from the Structural Equation Modelling concludes with the results of the statistical analysis.

5.2 Sample Distributions Demographic variables

This section presents the distribution of the sample across the demographic variables: age, gender, income, education level, occupation, middle class status and saving behaviour.

Table 5.1: Age Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
25 years – 35 years	85	49.7	49.7
36 years – 45 years	69	40.4	40.4
46 years – 55 years	14	8.2	8.2
56 years and above	3	1.8	1.8
Total	**171**	**100**	**100**

Ninety percent of the respondents are between 25 and 45 years old. This could be due to the convenience and snowball sampling methods and reflects the researcher's network, which is largely professionals with a tertiary education between the ages of 20- 25years old.

Table 5.2: Gender Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
Female	77	45.0	47.2
Male	86	50.3	52.8
Missing	8	4.7	N.A
Total	**171**	**100**	**100**

There is a fairly even split between genders – although there are 5% more male respondents.

Table 5.3: Income Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
R20,125 - R26,667	24	14.0	15.6
R26,668 - R38,125	41	24.0	26.6
R38,126 - R48,333	54	31.6	35.1
R48,334 - R73,750	35	20.5	22.7
Missing	17	9.9	N.A
Total	**171**	**100**	**100**

The majority of the respondents (61%) earn between R26,668 - R48,333. This also reflects the biggest (38%) income tax contributors as per the middle-income definition for this research (National Treasury of South Africa, 2017). That is, the sample distribution reflects that of income tax contributions, which is the income criteria for the definition of middle class.

Table 5.4: Education Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
Secondary school	1	0.6	0.6
Technical /vocational qualification	4	2.3	2.4
Tertiary Education	164	95.9	97.0
Missing	2	1.2	N.A
Total	**171**	**100**	**100**

Ninety-seven percent of the sample have attained a tertiary education. This could also be due to the convenience and snowball sampling methods and reflects the researcher's network, which is largely professionals with a tertiary education between the ages of 20- 25years old.

Table 5.5: Occupation Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
Office worker	8	4.7	4.8
Skilled worker	6	3.5	3.6
Professional	133	77.8	79.2
Executive	21	12.3	12.5
Missing	3	1.8	N.A
Total	**171**	**100**	**100**

The majority of the respondents (79%) hold professional occupations. Including executives, this becomes 92% of the respondents. In light of the distribution of educational standard, this distribution could have been anticipated and is consistent (Bonnefond et al., 2015).

Table 5.6: Middle Class Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
Yes	146	85.4	87.4
No	21	12.3	12.6
Missing	4	2.3	N.A
Total	**171**	**100**	**100**

The majority of the respondents (87%) self-identify as middle class.

Table 5.7: Saving Behaviour Distribution

Variable Categories	Frequencies	Percentage of Category	Valid Percentage
Yes	146	85.4	85.4
No	25	14.6	14.6
Total	**171**	**100**	**100**

Unexpectedly and interestingly, an overwhelming 85% of respondents claim to save. This is of particular interest as it does not reflect South Africa's national savings trends (Reserve Bank of South Africa, 2017).

5.3 Descriptive Statistics

Table 5.8: Descriptive Statistics

Construct	N	Mean	Std. Dev.	Skewness	Kurtosis
Attitude	171	6.03	1.49	-1.803 (.186)	2.363 (.369)
Social Norm	171	5.08	1.56	-.622 (.186)	-.596 (.369)
Conspicuous Consumption	171	3.18	1.84	.604 (.186)	-.769 (.369)
Behavioural Intention	171	4.84	1.56	-.368 (.186)	-.815 (.369)
Saver	171	1.15	.35	2.02 (.186)	2.11 (.369)

Valid N (listwise)	171	

The questionnaire was designed with a seven-point Likert-scale. The Attitude mean is 6.03 - relatively close to 7. The Social norm mean is 5.08. The Conspicuous consumption mean is 3.18. Behavioural intention mean is 4.84. And the Saver mean is 1.15 – where being a saver was coded as 1 for Yes and 2 for No.

For a normal distribution, the values of skewness and kurtosis should be close to zero (Field, 2009). Neither of the values are close to zero underscoring that the constructs are not normally distributed. In addition, the negative values for skewness indicate that the responses fall mostly to the right (Field, 2009). This applies for all the constructs other than Conspicuous consumption and saving behaviour. While negative values for kurtosis reflect a flat and light-tailed distribution (Field, 2009). This is the case for all the constructs expect Attitude, which has a positive value (suggesting a pointy heavy-tailed distribution) (Field, 2009).

5.4 Validity

All correlations between the item and the item-total score were found to be significant at the 5% level of confidence. Thus, all the questions were deemed valid. See **Table 5.9** below.

Table 5.9: Validity Test Results

Construct	Question	Total-Item Correlation
Attitude	I regard long-term savings as beneficial	0.89**
	I regard long-term savings as wise	0.85**
	I regard long-term savings as necessary	0.91**
	I regard long-term saving as expressing a sound plan for my life	0.904**
	Planning for the long-term is the best way to proceed in life	0.89**
	I regard long-term savings as pleasant	0.73**
	I regard long-term savings as convenient	0.76**
Social Norm	People important to me have advised me to save for the long-term	0.84**

	People important to me think it is a good idea to save for the long-term	0.92**
	People important to me approve of me saving for the long-term	0.91**
	People important to me want me to save for the long-term	0.92**
	Many people who are important to me **do** save for the long-term	0.80**
	The people in my life whose opinions I value **do** save for the long-term	0.86**
Conspicuous Consumption	People important to me have advised me to purchase the latest car or bigger house	0.83**
	People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	0.87**
	People important to me approve of me having latest/most expensive car, cellphone, clothes or house	0.89**
	People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	0.92**
	People important to me want me to have the latest/most expensive car, cellphone, clothes or house	0.91**
	Many people who are important to me **do** have the latest/most expensive car, cellphone, clothes or house	0.73**
	The people in my life whose opinions I value **do** have the latest/most expensive car, cellphone, clothes or house	0.65**

Perceived Behavioural Control	I do not feel equipped for the decision to save for the long-term	0.51**
	I tend to postpone financial decisions	0.66**
	I get unsure by the language of financial experts	0.58**
	I am anxious about long-term savings affairs	0.52**
	I have the self-discipline to save for the long-term	0.69**
	I have the ability to save for the long-term	0.70**
	It would be easy for me to save for the long-term	0.77**
	I am confident I would be able to save for the long-term	0.75**
	If it were entirely up to me, I am confident that I would save for the long-term	0.51**
Behavioural Intention	I intend to save for the long-term in the next three-months	0.89**
	I want to save for the long-term	0.68**
	I plan to save for the long-term in the next three-months	0.86**
	I have saved in the past three-months	0.75**

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.5 Reliability: Internal Consistency of Scales

Cronbach alpha tests were run in SPSS for the five constructs - attitude towards saving, social norm towards saving, conspicuous consumption, as a social norm, the perceived behavioural control and the behavioural intention towards saving. All the items of the scales were above the critical value of 0.7 (Field, 2009). These results indicate that the items of the questionnaire, for each construct, are internally consistent. See **Table 5.10** and detailed output presented in Appendix 5.1.

Table 5.10: Cronbach's Alpha Test Results

Construct	Cronbach's Alpha
Attitude towards saving	0.928
Social norm toward saving	0.937
Conspicuous consumption - social norm	0.927
Perceived behavioural control	0.807
Behavioural Intention	0.807

5.6 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was conducted. A CFA is also conducted as part of the SEM, in order to test the measurement model. Thus, the factors below were not included in the data analysis. Rather, the measurement model as specified in the SEM was employed. The results of the CFA (not part of the SEM) are presented below.

Table 5.11: CFA Results: Attitude

Indicator	Outcome
KMO	0.863 (Great) (Field, 2009,p.647)
Bartlett's test for sphericity	0.000
Number of factors	2
% of variance	89.066
New factor name: Saving Beneficial	Questions included: Q1- Q5
New factor name: Saving Positive	Questions included: Q6 - Q7

Attitude: All the correlations were above 0.3

Table 5.12: CFA Results: Social Norm

Indicator	Outcome
KMO	0.861 (Great) (Field, 2009, p. 647)
Bartlett's test for sphericity	0.000

Number of factors	1
% of variance	76.927
New factor name: Social Norm Saving	Questions included: Q8- Q13

Social Norm: All the correlations were above 0.3

Table 5.13: CFA Results: Conspicuous Consumption

Indicator	Outcome
KMO	0.864 (Great) (Field, 2009, p.647)
Bartlett's test for sphericity	0.000
Number of factors	2
% of variance	86.708
New factor name: CC People Advise Me	Questions included: Q14- Q18
New factor name: CC People Do Have	Questions included: Q19 – Q20

Conspicuous consumption as a social norm: All variables had at least one correlation above 0.3. One pair (Q14 & Q20) registered a correlation of 0.305

Table 5.14: CFA Results: Perceived Behavioural Control

Indicator	Outcome
KMO	0.822 (Great) (Field, 2009, p.647)
Bartlett's test for sphericity	0.000
Number of factors	2
% of variance	66.949
New factor name: Control Beliefs	Questions included: Q21- Q24
New factor name: Self-Efficacy	Questions included: Q25 – Q29

Perceived Behavioural Control: All variables had at least one correlation above 0.3. A few pairs had correlations below 0.3

Table 5.15: CFA Results: Behavioural Intention

Indicator	Outcome
KMO	0.733 (Good) (Field, 2009, p. 647)
Bartlett's test for sphericity	0.000
Number of factors	1
% of variance	64.817
New factor name: Behavioural Intention	Questions included: Q30 – Q33

Behavioural Intention: All variables had at least one correlation above 0.3.

5.7 Structural Equation Models (SEM)

This section presents the measurement and structural models and the respective model fits as part of the structural equation modelling (SEM) analysis. The measurement model tests whether the questions appropriately measure the respective construct (the CFA) and correlates all the constructs to test model fit (Hair et al., 2010). The structural model tests the model fit of the model derived from theory and the hypotheses the research aims to test (Hair et al., 2010).

Measurement Model

The measurement model was also found to have a good fit. **Table 5.16** below outlines the metrics for the model fit of the measurement model. While the chi-squared statistic suggests that the model is not an acceptable fit, this was expected because the number of respondents were less than 250 and the number of questions were between 12 and 30 (Hair et al., 2010, p.647). The fit indices, CFI, AVE and RMSEA indicate that the measurement model is a good-model fit. See detailed outputs presented in Appendix 5.2

Figure 5.1: SEM Output: Measurement Model

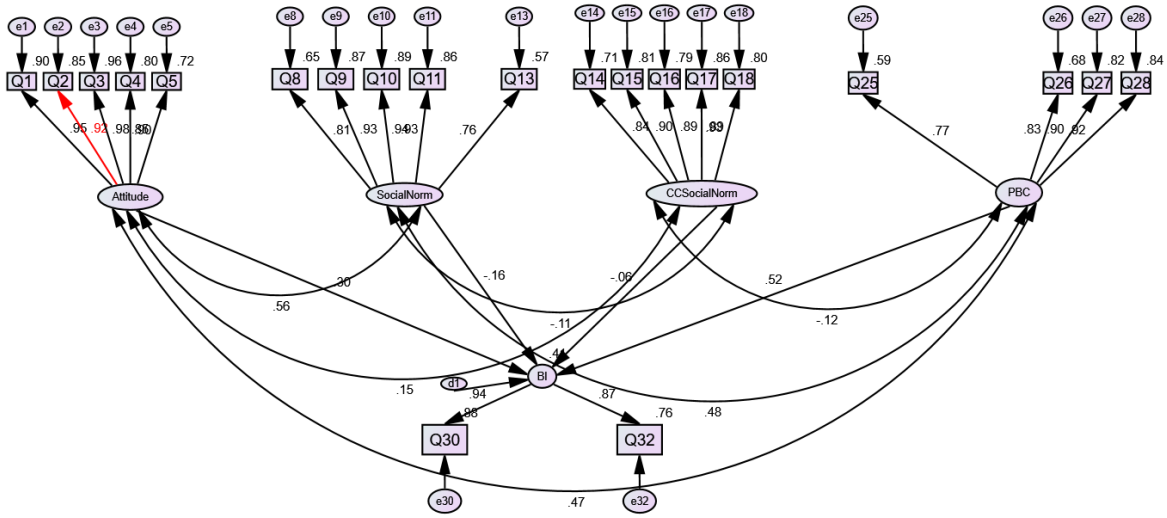


Table 5.16: Goodness of Fit Metrics: Measurement Model

Metric	Value	Test Criteria	Interpretation
χ^2, df, p-value	370, 179, 0.000	>0.05	Model not acceptable
Factor loadings	All above 0.7	>0.5	Questions internally consistent
CR	CR between Social norm and behavioural intention and conspicuous consumption and behavioural norm were below 1.96 – thus are statistically insignificant	>±1.96 <0.05	The social norm and conspicuous consumption constructs indicate that they may be problematic to model specification.
Average Variance Estimate (AVE)	All above 0.5	>0.5	Questions internally consistent
CFI	0.949	>0.92	Model acceptable
RSMEA	0.079	<0.08	Model acceptable

(Byrne, 2010; Hair et al., 2010; Hair, Ringle, & Sarstedt, 2011)

Table 5.17 presents the AVE for each construct and factor loadings for each question.

The AVE values for all the constructs were considerably above 0.5 (the critical value) (Hair et al., 2010). This indicates that there is a low variation among the questions that explain a particular construct (Hair et al., 2010). That is, the questions are internally consistent.

The factor loadings are consistent with the Cronbach's alpha test above. For the Attitude construct, Cronbach's alpha would have been higher with the exclusion of Q6 and Q7. For the Social Norm constructs, this applies to Q12. Conversely for the PBC construct, only excluding Q21 and Q24 would have resulted in a higher Cronbach's alpha. The exclusion of Q22, Q23, and Q24 are expected to decrease the Cronbach's alpha, which is a contrast to the measurement model specification. For the Conspicuous consumption construct, this applied to Q20. However, excluding Q19 would have had a neutral effect. For the Behavioural Intention construct, similarly had Q33 been excluded, while excluding Q31 would have been neutral.

Most of the questions that measured, PBC construct were being excluded. In particular, these are the questions that were reverse coded. This could be the reason that the questions had factor loadings below 0.7.

Table 5.17: Detailed results for the Constructs

Construct	AVE	Question	Factor Loading
Attitude	0.845	I regard long-term savings as beneficial	0.949
		I regard long-term savings as wise	0.920
		I regard long-term savings as necessary	0.978
		I regard long-term saving as expressing a sound plan for my life	0.897
		Planning for the long-term is the best way to proceed in life	0.847
		I regard long-term savings as pleasant	Excluded
		I regard long-term savings as convenient	Excluded
Social Norm	0.768	People important to me have advised me to save for the long-term	0.806
		People important to me think it is a good idea to save for the long-term	0.932

		People important to me approve of me saving for the long-term	0.942
		People important to me want me to save for the long-term	0.930
		Many people who are important to me **do** save for the long-term	Excluded
		The people in my life whose opinions I value **do** save for the long term	0.756
Conspicuous Consumption as social norm	0.793	People important to me have advised me to purchase the latest car or bigger house	0,844
		People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	0,902
		People important to me approve of me having latest/most expensive car, cellphone, clothes or house	0,887
		People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	0,928
		People important to me want me to have the latest/most expensive car, cellphone, clothes or house	0,892
		Many people who are important to me **do** have the latest/most expensive car, cellphone, clothes or house	Excluded
		The people in my life whose opinions I value **do** have the latest/most expensive car, cellphone, clothes or house	Excluded
Perceived Behavioural Control	0.735	I do not feel equipped for the decision to save for the long-term	Excluded
		I tend to postpone financial decisions	Excluded

		I get unsure by the language of financial experts	Excluded
		I am anxious about long-term savings affairs	Excluded
		I have the self-discipline to save for the long-term	0.771
		I have the ability to save for the long-term	0.827
		It would be easy for me to save for the long-term	0.905
		I am confident I would be able to save for the long-term	0.919
		If it were entirely up to me, I am confident that I would save for the long-term	Excluded
Behavioural Intention	0.820	I intend to save for the long-term in the next three-months	0.939
		I want to save for the long-term	Excluded
		I plan to save for the long-term in the next three-months	0.871
		I have saved in the past three-months	Excluded

This measurement model was then used to construct and test the structural model.

Structural Model

The structural model was also found to have good fit. In addition, three of the five hypotheses were found to be statistically significant**. Table 5.18** below outlines the goodness of fit metrics of the structural model. Like the measurement model, the chi-squared statistic suggests that the model is not an acceptable fit. This was expected because the number of respondents were less than 250 and the number of questions were between 12 and 30 (Hair et al., 2010, p.647). The fit indices, CFI, AVE and RMSEA indicate that the measurement model is a good-model fit. See detailed outputs presented in Appendix 5.3.

Figure 5.2: SEM Output: Structural Model

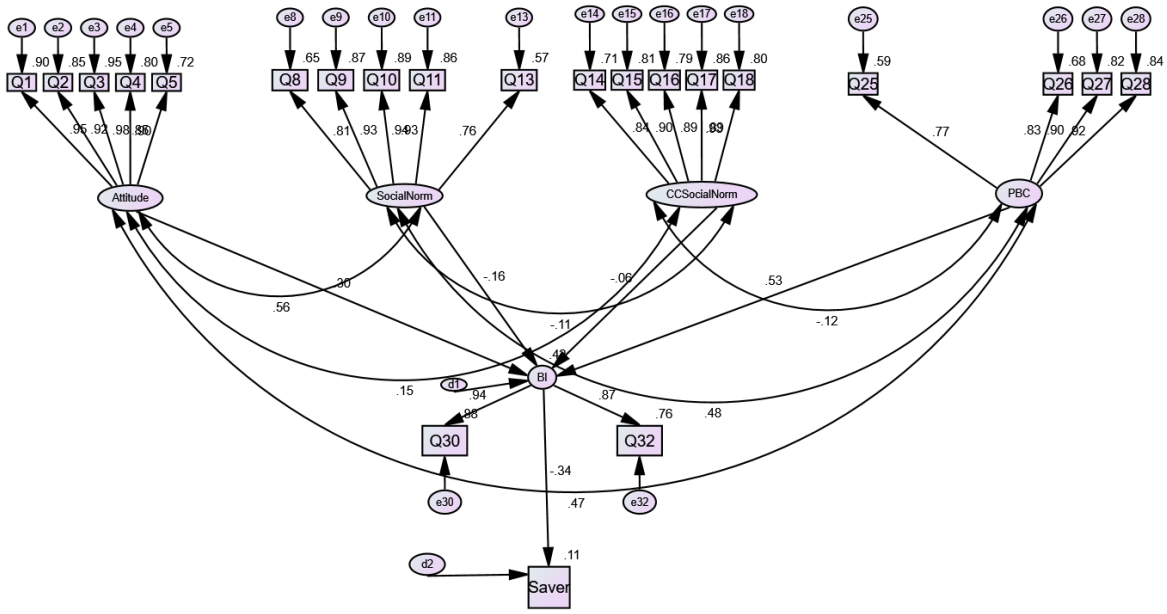


Table 5.18: Goodness of Fit Metrics: Structural Model

Metric	Value	Test Criteria	Interpretation
χ^2, df, p-value	389, 199, 0.000	>0.05	Model not acceptable
Factor loadings	For constructs are below 0.7	>0.5	Suggests weak relationships among constructs
CR	CR between Social norm and behavioural intention and conspicuous	>±1.96 <0.05	The social norm and conspicuous consumption constructs indicate that they are statistically insignificant

	consumption and behavioural norm were below 1.96		
CFI	0.95	>0.92	Model acceptable
RSMEA	0.075	<0.08	Model acceptable

Pearson Correlations

The correlations in **Table 5.19** range from small to medium correlations. The large correlations are only between attitude and social norm and PBC and behavioural intention. In particular, all correlations with conspicuous consumption are statistically insignificant and the correlation between social norm and saving behaviour is also statistically insignificant. This, statistical insignificance, indicates that there is no relationship between conspicuous consumption and the other four constructs and saving behaviour. There is also no relationhip between social norm and saving behaviour.

Table 5.19: Pearson's Correlations

Variable	Attitude	Social Norm	Conspicuous Consumption	Perceived Behavioural Control	Behavioural Intention	Saver
Attitude	-	0.538**	0.146	0.469**	0.441**	-0.179*
Social Norm	-	-	-0.127	0.449**	0.243**	-0.103
Conspicuous Consumption	-	-	-	-0.110	-0.060	0.004
Perceived Behavioural Control	-	-	-	-	0.551**	-0.334**
Behavioural Intention	-	-	-	-	-	-0.310**
Saver	-	-	-	-	-	-

**=statistically significant at 5% level; **=statistically significant at the 1% level*

Table 5.20: Interpretation of Correlations

Correlation	Interpretation
0.10 – 0.29	Small
0.30 – 0.49	Medium
0.50 – 1.0	Large

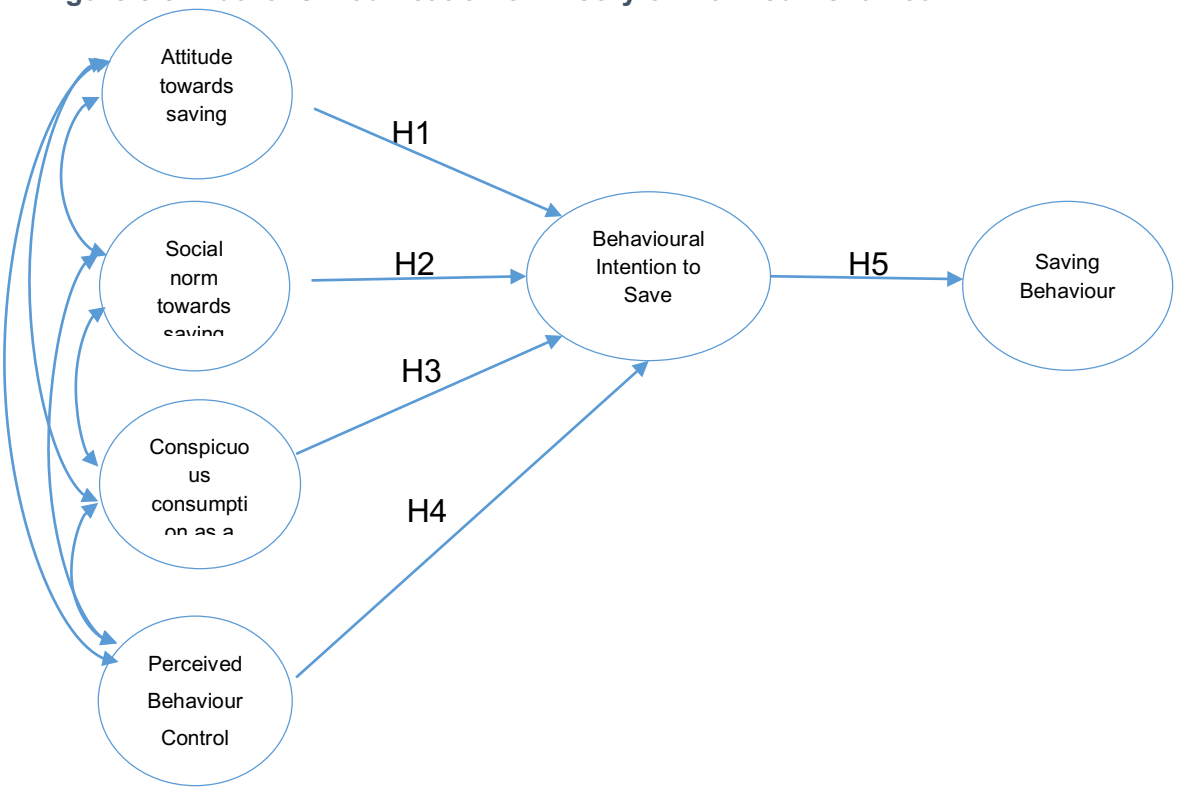
(Cohen, 1992)

The following section outlines the results of the structural model as per the hypotheses outlined in Chapter 3. It should be noted that the structural model was specified as per the theory. However, this research is only interested in Hypothesis 1 – 5. As such, no hypotheses were specified for the inter-relationships between the constructs and consequently, this will not be reported on.

5.8 Statistical Results

The model in Figure 5.2 represents the Theory of Planned behaviour. This is the structural model that was tested by employing structural equation modelling. While the model was tested as specified in the theory, only the hypothesis of interest to this research will be reported on. These hypotheses were outlined in chapter 3. The following section presents the results of the statistical analysis per hypotheses.

Figure 5.3: Author's Modification of Theory of Planned Behaviour



5.8.1 Hypothesis 1

H1: *A positive attitude towards savings leads to an increased behavioural intention to save*

Table 5.21 indicates that the H1 is supported. The coefficient is statistically significant at the 5% level. The coefficient is positive and the CR is above ±1.96. Thus, a positive attitude towards savings results in positive saving intention. The coefficient suggests that a point increase in attitude increases behavioural intention by 0.30 points. The correlation between attitude and behavioural intention is positive, medium-sized and statistically significant.

Table 5.21: H1 Outputs

Metric	Value
Standardised coefficient	0.30
Unstandardized coefficient	0.35
CR	3.416**
Correlation with Behavioural Intention	0.44**
AVE	0.85

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.8.2 Hypothesis 2

H2: *A positive social norm towards saving leads to an increased behavioural intention to save*

Table 5.22 indicates that the H2 is not supported. The coefficient is not statistically significant at the 5% level. The coefficient is negative and the CR is below ±1.96. Thus, the social norm does not have a statistical impact on behavioural intention to save. The coefficient is small and negative, which is contrary to the theory. Conversely, the correlation between social norm and behavioural intention is positive and medium-sized.

Table 5.22: H2 Outputs

Metric	Value
Standardised coefficient	-0.162
Unstandardized coefficient	-0.181
CR	-1.864
Correlation with Behavioural Intention	0.24**
AVE	0.76

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.8.3 Hypothesis 3

H3: *Conspicuous consumption, as a social norm, leads to a negative impact on the behavioural intention to save*

Table 5.23 indicates that H3 is not supported. The coefficient is not statistically significant at the 5% level. The coefficient is negative and the CR is below ±1.96. Thus, social norm does not have a statistical impact on behavioural intention. The coefficient is small and negative, which is contrary to the theory. The correlation between conspicuous consumption and behavioural intention is small, negative and not statistically significant.

Table 5.23: H3 Outputs

Metric	Value
Standardised coefficient	-0.058
Unstandardized coefficient	-0.058
CR	-0.833
Correlation with Behavioural Intention	-0.060
AVE	0.79

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.8.4 Hypothesis 4

H4: *Positive perceived behavioural control leads to an increased behavioural intention to save*

Table 5.24 indicates that H4 is supported. The coefficient is statistically significant at the 5% level. The coefficient is positive and the CR is above ±1.96. There is a positive relationship between perceived behavioural control and behavioural intention. The coefficient suggests that a point increase in PBC results in 0.53 points increase in behavioural intention. The correlation between PBC and behavioural intention is large, positive and statistically significant.

Table 5.24: H4 Outputs

Metric	Value
Standardised coefficient	0.53
Unstandardized coefficient	0.62
CR	5.729**

Correlation with Behavioural Intention	0.55**
AVE	0.74

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.8.5 Hypothesis 5

H5: *A positive behavioural intention has a positive influence on saving behaviour.*

Table 5.25 indicates that H5 is supported. The coefficient is statistically significant at the 5% level. The coefficient is negative and the CR is above ±1.96. There is a negative relationship between behavioural intention and savings. The coefficient suggests that a point increase in behavioural intention results in 0.34 points decrease in saving behaviour. The correlation between behavioural intention and saving is medium-sized, negative and statistically significant.

Table 5.25: H5 Outputs

Metric	Value
Standardised coefficient	-0.34
Unstandardized coefficient	-0.71
CR	-4,386**
Correlation with Behavioural Intention	-0.31**
AVE	0.82

**=statistically significant at 5% level; **=statistically significant at the 1% level*

5.9 Conclusion

This chapter presented the results of the statistical analysis conducted on the survey data. Structural equation modelling was employed to determine the antecedents of saving behaviour among the black middle class in South Africa through the lens of the TPB. The constructs were found to be valid and internally consistent. Thus, the questions could be used in the analysis. The measurement model, which is a confirmatory factor analysis, specified the most appropriate questions to include. The measurement and structural models were deemed good model fit. The attitude, perceived behavioural control and behavioural intention constructs were found to be statistically significant. The social norm and conspicuous consumption constructs were found not to be statistically significant. The interpretation of these results is presented in the following chapter.

6 Chapter 6: Discussion of Results

6.1 Introduction

Chapter 5 presented the results of the hypotheses, outlined in Chapter 3, that were tested by this research. This chapter presents a discussion of the results by referring back to the literature review presented in Chapter 2. In addition, this chapter presents the implications of the results on the antecedents of saving behaviour among the black middle class in South Africa.

6.2 Sample Distributions

The average respondent for the research is a between 25-45 years old, holds a tertiary degree and professional occupation, earning between R26,668 - R48,333, self-identifies as middle class and indicates that they save monthly.

6.3 Descriptive statistics

The attitude mean suggests that the respondents have a positive attitude toward saving. The social norm and behavioural intention means suggest that respondents have a neutral social norm and indifferent behavioural intention toward saving. While the conspicuous consumption mean suggests that conspicuous consumption is not a social norm among the black middle class in South Africa. The mean for saving behaviour confirms that most of the respondents indicate that they do save. Though this may not be accurate or reflect reality according the the national saving statistics (Reserve Bank of South Africa, 2017). The literature has found that when questionnaires are self-reported, especially when relating to socially acceptable behaviour, the responses are biased toward what is deemed socially acceptable (Hassan et al., 2016). In addition, that saving behaviour was not explicitly defined in the survey may have resulted in differing views on its meaning. This may have also introduced a bias in the the results.

6.4 Hypothesis

This section presents the interpretation of the hypothesis.

6.4.1 Hypothesis 1

H1: *A positive attitude towards savings leads to an increased behavioural intention to save.*

This hypothesis was supported. That is, the black middle class in South Africa has a positive attitude toward saving behaviour, which in turn drives a positive behavioural intention. A point increase in savings attitude, increases behavioural intention by 0.30 points. This supports the Theory of Planned Behaviour, which states that a positive attitude results in a positive behavioural intention toward a behaviour (Ajzen, 1991). Attitude towards the behaviour refers

to the belief associated with a behaviour and this belief attributes a positive or negative outcome to the behaviour (Ajzen, 1991). Thus, one is more likely to enact a behaviour that is believed to hold a desirable outcome versus one that is likely to result in a negative outcome. The TPB states that a positive attitude toward a behaviour increases the behavioural intention toward the behaviour and consequently the behaviour (Ajzen, 1991). A similar study conducted in Germany found that the higher the perceived importance of saving, the higher the intention to save (Ruefenacht et al., 2015). This is also supported in the saving literature. Furnham (1997) finds that optimism towards personal finance tends to be a self-fulling prophecy. Thus a positive attitude towards saving ***should*** result in positive saving behaviour. A study on low-to-middle income households in the United States of America (USA) reiterated this by finding that the odds of regular saving increased 265% among respondents who had a positive attitude toward saving (Mauldin et al., 2016).

The correlation between attitude and behavioural intention is medium-sized positive and statistically significant (0.44). Though, this is lower than the mean correlation (0.57) found in a meta-study of the TPB constructs (McEachan et al., 2011).

The correlation between attitude and saving behaviour is small and negative (-0.179). This suggests that the positive relationship between attitude and saving intention does not translate into positive saving behaviour. This ambiguity is also apparent in the literature. Lindbeck (1997) posits that “maybe the social norm in favour of saving refers to a virtue that many people are not able to live up to, an example of so-called ‘cognitive dissonance’” (p.376).

These results provide a silver-lining for South Africa’s household saving behaviour. The black middle class possess a positive attitude towards saving – that is, all things equal, this social class would have a high savings rate. However, the negative correlation between attitude and saving behaviour indicates that the positive attitude does not translate into positive behaviour. This is also evidenced in the household saving data (Reserve Bank of South Africa, 2017). Thus, the positive attitude is being moderated. This research hypothesised that conspicuous consumption moderates the black middle class’s ability to save. High debt levels, as evidenced by a national record high of 86% of disposable income in 2008 (Reserve Bank of South Africa, 2017), are likely to moderate saving behaviour. Historically, spending by the middle class has been funded by debt (Burger et al., 2015). In particular, for the black middle class these high debt levels are also a proxy for conspicuous consumption. Sixty percent of credit granted relates to mortgages and vehicles. Of these, 79% of mortgages granted were above R700,000 and 98% of applicants earned more than R15,000 (which spans the income definition of the black middle class as per this research) (National Credit Regulator, 2017). This suggests that around 50% of disposable income is allocated to bond repayments

(author's assumption of a 10% interest rate over 20 years). The remaining 50% of income is allocated to the rest of the household expenditure basket. This underscores the over indebtedness of the middle class in South Africa, especially the black middle class, and emphasis this social class' inability to save.

Other moderators of saving behaviour include a higher income dependency. On average, one black South African provides financial support for 3.7 other black South Africans (Statistics South Africa, 2017b). This is in contrast to 2.7 for the other race groups in South Africa (Statistics South Africa, 2017b). More specifically, 47% of black South African live below the poverty line - relative to the national average of 40% (Statistics South Africa, 2017a). Therefore, the broader financial responsibility of income earners among black South Africa's is disproportionately larger than other racial groups in the country.

Thus, while the black middle class has a positive attitude towards saving, over indebtedness **and** socio-economic realities may preclude this social class for allocating income to long-term saving. This explains the ambiguity between a positive relationship between attitude to saving and behavioural intention, and a negative correlation between attitude towards saving and saving behaviour.

6.4.2 Hypothesis 2

H2: *A positive social norm towards saving leads to an increased behavioural intention to save*

This hypothesis was not supported. That is, the social norm towards saving of the black middle class in South Africa has no relationship with the behavioural intention to save. The sign of the coefficient is negative, which indicates that social norm would have had a negative relationship with behavioural intention to save (had the hypothesis been accepted). That is, that the black middle class have a negative social norm towards saving. The TPB states that the less favourable the subjective norm towards the behaviour, the weaker the behavioural intention and consequently, the behaviour (Ajzen, 1991). Thus, a negative social norm towards saving results in a weaker behavioural intention towards saving, consequently moderating the behaviour. This finding suggests that black middle class in South Africa do not actively encourage each other to save nor is saving behaviour deemed a positive activity within this social class. Although this construct is not supported, it most accurately reflects the relationship between behavioural intention and saving behaviour by the black middle class in South Africa - as evidenced in the national statistics (Reserve Bank of South Africa, 2017).

Conversely, the correlation between social norm and behavioural intention is small-sized positive and statistically significant (0.243). This is also lower than the mean correlation (0.40) found in a meta-study of the TPB constructs (McEachan et al., 2011). The correlation between

social norm and saving behaviour is small, negative and not significant (-0.10). This further reinforces that the black middle class in South Africa have a negative social norm towards saving. Though, the size of the correlation suggests that social norm toward saving does not have an impact on saving behaviour.

This negative social norm may be influenced by the age distribution of the respondents. Fifty percent of the sample consists of people between the ages of 25 and 35 years old, characterized as Generation Y in literature (Duh & Struwig, 2015). In South Africa, specifically, this cohort has been characterized as "Start me ups" for those 25-29-year-old and "Young family" for those 30-35 years old (Duh & Struwig, 2015). These consumer groups were characterized as either "needing brands for self-expression" or "expressing success through their young children" (Duh & Struwig, 2015, p.96). The spending and buying decision behaviour of Generation Y has been found to be distinct from that of older generations. In particular, members of Generation Y cohort have been found to place a high emphasis on consumption and materialism and to be impulsive and short-term oriented in decision-making, which negatively impacts their saving behaviour (Lazarevic, 2012; Viswanathan & Jain, 2013). This suggests that the finding of this research, the negative social norm toward saving, is biased by this generational cohort, whose spending behaviour crowds out saving.

The national household savings data suggests that South Africans, across generational cohorts, do not have a positive social norm towards saving. In particular, the fact that household saving rates (as a percent of disposable income) have been negative since 2006 (Reserve Bank of South Africa, 2017), households are dissaving, underscores that South Africans have a negative social norm towards saving.

The social norm construct was not supported by this research. A meta-study on the TPB found the social norm construct to be a weak predictor of behavioural intention (Armitage & Conner, 2001; McEachan et al., 2011). This was attributed to the operationalisation of the construct. The TBP conceptualized social norm in a direct manner, which implies that individuals consciously comply to the wishes of others. However, social norms are more sub-conscious and less explicit or direct. In addition, individuals are less likely to admit to their actions being driven by social pressures (Armitage & Conner, 2001). That is, individuals are unlikely to acknowledge that their buying decisions are influenced by a peer pressure of sorts, even though this takes place on a sub-conscious level. Such an operationalizing of the social norm construct lends itself to hypothesis not being supported (Armitage & Conner, 2001).

In addition, the finding that Hypothesis 2 is not supported may be due to the sample size. The statistical analysis was conducted on a sample size of 171. This is below the rule of thumb of 200 responses for SEM (Hair et al., 2010). Although the sample size was found sufficient to

conduct a SEM (Hair et al., 2010), relatively small sample sizes are prone to findings of non-significant parameters (Byrne, 2010).

6.4.3 Hypothesis 3

H3: *Conspicuous consumption, as a social norm, leads to a negative impact on the behavioural intention to save*

This hypothesis was not supported. That is, conspicuous consumption, as a social norm, among the black middle class in South Africa has no relationship with the behavioural intention to save. The sign of the coefficient is negative, which indicates that conspicuous consumption, as a social norm, would have had a negative relationship with behavioural intention to save (had the hypothesis been accepted). That is, conspicuous consumption is a negative social norm and has a negative impact on the behavioural intention to save. This finding also indicates that conspicuous consumption is not a social norm among the black middle class.

The correlation between social norm and behavioural intention is small-sized negative and not statistically significant (-0.06). This underscores that there is no relationship between conspicuous consumption and behavioural intention. Similarly, the correlation between conspicuous consumption and saving behaviour is small, positive and not significant (0.004). Further confirming that there is no relationship between conspicuous consumption, as a social norm, and saving behaviour.

That the construct, conspicuous consumption as a social norm, was not supported and the small magnitude of the coefficient suggests that conspicuous consumption is not a social norm among the black middle class in South Africa.

These results support more recent, since 2007, literature (Burger et al., 2015; Nieftagodien & van der Berg, 2007) on the spending behaviour of the black middle class in South Africa, which characterizes the spending behaviour as asset accumulation, rather than conspicuous consumption . The fact that conspicuous consumption was not supported suggests that the buying behaviour of the black middle class is motivated by other considerations (such as asset accumulation) rather than signalling wealth through artefacts (conspicuous consumption) (Trigg, 2001). Historically, black South Africans were prohibited from participating in the formal economy (Nieftagodien & van der Berg, 2007). As such, their ability to earn large salaries was curtailed and the ability to purchase appliances, houses and cars was limited (Nieftagodien & van der Berg, 2007). Thus making the spending behaviour of the black middle class a function of asset-accumulation - Analogous, to furnish a new home - more a necessity rather than conspicuous consumption (Burger et al., 2015; Nieftagodien & van der Berg, 2007).

Further, Burger et al. (2015) have split black middle class into two sub-groups that are said to have different spending patterns. The emerging black middle class are new entrants to the middle class. This group suffer an asset deficit, which is rectified through conspicuous consumption of white goods which reflect a middle-class lifestyle - supporting Nieftagodien & van der Berg (2007) contention. The established middle class, according to Burger et al. (2015), are people who have a longer membership in the middle class, have accumulated the capital associated with a middle-class lifestyle and as such do not need to continue purchasing these white goods. Therefore, conspicuous consumption is deemed to characterize the spending pattern of new members of the middle class, rather than a social norm attributable to the black middle class (Burger et al., 2015).

For the purposes of this research, conspicuous consumption was operationalized as a social norm in the measurement instrument. Therefore, the social norm questions were adapted to relate to conspicuous consumption. This is because this research also sought to test the impact of conspicuous consumption, as a social norm, on saving behaviour of the black middle class in South Africa. Consequently, the same disadvantages to the operationalisation of the social norm construct also apply to conspicuous consumption. A meta-study on the TPB has found that the social norm construct is a weak predictor of behavioural intention (Armitage & Conner, 2001; McEachan et al., 2011). This is attributed to how the social norm construct is operationalised. The TBP conceptualized social norm in a direct manner, which implies that individuals consciously comply to the wishes of others. However, social norms are more sub-conscious and less explicit or direct (Armitage & Conner, 2001). In addition, individuals are less likely to admit to their actions being driven by social pressures (Armitage & Conner, 2001). That is, individuals are unlikely to acknowledge that their decisions are influenced by a peer pressure of sorts, especially in relation to conspicuous consumption, even though this takes place on a sub-conscious level (Armitage & Conner, 2001). Such an operationalizing of the social norm construct lends itself to hypothesis not being supported (Armitage & Conner, 2001).

In addition, the finding that Hypothesis 2 is not supported may be due to the sample size. The statistical analysis was conducted on a sample size of 171. This is below the rule of thumb of 200 responses for SEM (Hair et al., 2010). Although the sample size was found sufficient to conduct a SEM (Hair et al., 2010), relatively small sample sizes are prone to findings of non-significant parameters (Byrne, 2010).

6.4.4 Hypothesis 4

H4: *Positive perceived behavioural control leads to an increased behavioural intention to save*

This hypothesis is supported. That is, the black middle class in South Africa has a positive perceived behavioural control toward saving behaviour, which in turn drives a positive behavioural intention (Ajzen, 1991). A point increase in PBC, increases behavioural intention by 0.53 points. This supports the TPB which states that a positive PBC results in a positive behavioural intention toward a behaviour (Ajzen, 1991). Perceived behavioural control (PBC) is a combination of control beliefs and the perceived power to enact the behaviour (Ajzen, 1991). Control beliefs refer to the presence of resources and opportunity to enact a behaviour (Ajzen, 1991). "The more resources and opportunities an individual believes they possess, and the few obstacles they anticipate, the greater the perceived control over the behaviour" (Ajzen, 1991, p.196). The second component to PBC refers to self-efficacy, which Ajzen (1991) takes from Bandura's (1982) definition which relates to how confident one feels in their own ability to enact a behaviour. The TPB states that positive PBC towards the behaviour, the stronger the behavioural intention (Ajzen, 1991).

The results also support the literature on saving behaviour, that a strong sense of self-efficacy is positive for driving saving behaviour. Self-efficacy is defined as an individual's belief in their ability to succeed or their confidence to excel in a particular situation. Individuals with high levels of self-efficacy are likely to persevere through adversity and invariably succeed at a task (West, 2011). A study among low-middle income households in the USA found that respondents with lower self-efficacy were 53% less likely to save than respondents with higher self-efficacy (Lown et al., 2015). While a study on Australian women found that women with higher self-efficacy were more likely to hold investment or savings accounts rather than credit card or loans (Farrell et al., 2016). Similarly, a study conducted in Germany found that increased anxiety (the second component of PBC) toward saving decreased the saving intent, while income (a proxy for the first component of PBC, the ability to enact a behaviour) had a positive relationship with saving (Ruefenacht et al., 2015). Therefore, a positive PBC resulted in a positive behavioural intention towards saving.

The correlation between PBC and saving intention is large, positive and statistically significant (0.55). Interestingly this is in line with the findings of a meta-study – the mean correlation of PBC and behavioural intention (0.54) (McEachan et al., 2011). Unlike the meta-study, in this research, PBC has the highest correlation with saving behaviour. Whereas, in the meta-study, attitude had the highest correlation (0.57) followed by PBC (McEachan et al., 2011).

Conversely, the correlation between PBC and saving behaviour is medium-sized, negative and statistically significant (-0.33). While this is contrary to the TBP (Ajzen, 1991), it is more consistent with saving behaviour in South Africa – as evidence in the national saving statistics (Reserve Bank of South Africa, 2017).

In South Africa, the research on income and saving behaviour is ambiguous. A cross-sectional study found a negative relationship between saving and income (Chipote & Tsegaye, 2014; Simleit et al., 2011), while other studies found that there is a positive relationship between income and saving (Mongale et al., 2013; Syden, 2014; Zwane et al., 2016). However, the national savings data in South Africa suggest that income and saving have a negative relationship. Household savings rates (as a percentage of disposable income) have been negative since 2006, despite an increased disposable income (Reserve Bank of South Africa, 2017). In light of the size of the black middle class in South Africa, this data is likely reflect this section of South African society too.

The finding that the black middle class in South Africa has a large, positive PBC suggests that the black middle class has both the behavioural control and self-efficacy to save. However, similar to attitude, this positive PBC does not translate into saving behaviour (as evidenced by the correlations and national save statistics (Reserve Bank of South Africa, 2017)). This could reflect the over-indebtedness and socio-economic realities (as referred to above), which may preclude this social class for allocating income to long term saving. Thus, while the black middle class has a positive PBC toward saving, their economic circumstance is crowding-out saving.

Katona's theory of saving stated that saving was a function of the "ability and willingness to save" (Wärneryd, 1989). The ability to save was deemed a function of disposable income, while the willingness to save was a result of how optimistic an individual felt about the macro-economy (Lunt & Livingstone, 1991). Katona's contribution links the TPB's constructs of "attitude" and "perceived behavioural control" to the savings literature. Incidentally, in this research these two constructs are positive and are supported – underscoring the influence of a positive attitude and perceived behavioural control in driving saving behaviour.

6.4.5 Hypothesis 5

H5: *A positive behavioural intention has a positive influence on saving behaviour*.

This hypothesis was supported. That is, the behavioural intention to save by the black middle class in South Africa drives saving behaviour. However, the coefficient is negative, which suggests that the black middle class has a negative behavioural intention to save. Specifically, a point increase in behavioural intention, decreases saving behaviour by 0.34 points. This is in contrast to the TPB, which states that an individual's actions are driven by their intention toward the behaviour (therefore, the coefficient should be positive) (Ajzen, 1991). Intention is an indication of how determined the individual is in enacting the behaviour (Ajzen, 1991).

The correlation between behavioural intention and saving was found to be medium-sized, negative and statistically significant (-0,31). This is in sharp contrast to the meta-study that

found a correlation of 0.43 (McEachan et al., 2011). The theory also states that behavioural intention is affected by three constructs: attitude, social norms and perceived behavioural control (Ajzen, 1991). The inconsistency of the results relating to social norms could have resulted in the contrarian result obtained for the relationship between behavioural intention and saving behaviour. While the attitude and PBC constructs were positive and supported, the two social norm constructs were negative and not supported. The correlations between attitude, social norm, PBC and saving behaviour were negative. This is consistent with South Africa's national savings data, which show that South African households have been dissaving since 2006 (Reserve Bank of South Africa, 2017).

The specification of the measurement instrument may also have resulted in these inconsistent results. Behaviour is measured on a binary response, while intention is measured on a Likert-scale (Hassan et al., 2016).

The inconsistency in the results could also be because the responses to saving behaviour may not be accurate or reflect reality. Where the behaviour is self-reported, particularly where the behaviour is deemed socially acceptable, responses are likely to be what is socially acceptable, rather than honest or accurate (Hassan et al., 2016). Thus, the inconsistency in the results may stem from inaccuracies in the reporting of saving behaviour.

Lastly, the inconsistent results could suggest that the TPB does not adequately capture the antecedents of the savings behaviour of the black middle class in South Africa. The theory of planned behaviour has been criticised for its exclusion of emotional decision-making and other drivers of intention such as habit strength, self-determination, self-regulation and anticipated regret (Sniehotta et al., 2014).

The TPB states that an individual's behavioural intention toward a behaviour drives the behaviour (Ajzen, 1991). Ajzen (1991) goes on to state that behavioural intention is influenced by the attitude, the social norm and the perceived behavioural control towards the behaviour. For the purposes of this research, conspicuous consumption is included as a social norm. Positive relationships among these constructs should result in a positive behavioural control, which in turn drives positive behaviour. This research found positive relationships between attitude, PBC and behavioural intention and negative relationships between social norm, conspicuous consumption and behavioural intention. Consequently, behavioural intention had a negative relationship with saving behaviour. These findings suggest that social norm has the biggest influence on behavioural intention (despite the hypothesis not being supported).

6.5 Conclusion

This chapter presented the interpretation of the results of the statistical analysis. This research aimed to determine the antecedents of saving behaviour among the black middle class in

South Africa, through the lens of the Theory of Planned Behaviour TPB). The TPB states that attitude, social norm, and perceived behavioural control towards a behaviour drives the behavioural intention toward the behaviour, which in turn drives the behaviour (Ajzen, 1991). The research has found that the black middle class in South Africa has a positive attitude and perceived behavioural control towards saving behaviour. This is in line with the literature on the TPB and savings. However, social norm and conspicuous consumption, as a social norm, were found to be negative and not to have an impact on behavioural intention. In particular, the findings suggest that conspicuous consumption is not a social norm among the black middle class in South Africa. Despite the positive attitude and PBC, the behavioural intention towards saving was found to have a negative relationship with saving behaviour. This is inconsistent with the TPB (Ajzen, 1991) but reflects the reality of saving behaviour in South Africa (Reserve Bank of South Africa, 2017). This also suggests that social norm has a disproportionately larger influence on behavioural intention. The following chapter discusses the implications of these research findings.

7 Chapter 7: Conclusion

7.1 Introduction

South Africa is notorious for its low savings rates, especially in relation to its emerging market peers. Solow (1956) posits that countries with higher savings rates are able to finance their investment spending, consequently are able to attain higher economic growth rates. South Africa's low savings rates also leave it dependent on foreign capital and vulnerable to sharp currency fluctuations (Monyela & Madonsela, 2017). Therefore, driving saving behaviour in South Africa is crucial for more macroeconomic stability and sustained economic growth. The black middle class in South Africa constitutes at least 41% of South Africa's middle class population (Kotze et al., 2013) . This makes it a significant proportion of the population. Therefore, a meaningful shift in the saving behaviour of this social class could result in a turnaround in country's saving statistic.

This research tested the antecedents of saving behaviour among the Black middle class in South Africa by applying the Theory of Planned Behaviour (TPB) as a theoretical framework. The TPB states that attitudes, social norms and perceived behaviour control influence behavioural intention, which in turn drives behaviour (Ajzen, 1991). This research sought to determine the attitudes, social norm, conspicuous consumption, as a social norm, and the perceived behavioural control and their influence on saving intention and its impact on saving behaviour (Ajzen, 1991) of the black middle class in South Africa. This chapter concludes this research by presenting the key findings and relating these to implications for managers, policy-makers and theory. This chapter closes with the limitations of this research and suggestions for future research.

7.2 Findings

This research sought to determine the antecedents of saving among the black middle class in South Africa through the lens of the Theory of Planned Behaviour (TPB). The TPB was operationalized through an online questionnaire, using convenience and snowball sampling. Once the results were collected edited and coded, the data was tested for validity and internal consistency. All the constructs were found to be valid and internally consistent. Structural equation modelling (SEM) was employed in order to test the hypotheses. The measurement and structural models were found to have a good model fit. Thus, statistical inferences could be drawn off the structural model. The SEM tested five hypotheses, derived from the TPB, in order to determine the antecedents of saving behaviour among the black middle class in South Africa. Three of the hypotheses were supported, while two were not.

7.2.1 Hypothesis 1

H1: *A positive attitude towards savings leads to an increased behavioural intention to save*

This hypothesis was supported. This suggests that the black middle class in South Africa has a positive attitude towards saving. This positive attitude positively influences the behavioural intention to save, which drives positive saving behaviour (Ajzen, 1991). However, the country's national saving statistics contradict this finding. There is an ambiguity between positive attitude and behavioural intention to saving and the saving data, which shows that South Africans have been dissaving since 2006 (Reserve Bank of South Africa, 2017). This could be attributed to over-indebtedness of households and relatively higher financial dependency ratios which place a disproportionate economic burden on the black middle class (National Credit Regulator, 2017; Statistics South Africa, 2017a, 2017b). These factors are deemed to result in the crowding-out of saving behaviour. Thus the incongruence between the theory and reality. The inconsistency could also be due to the that fact the self-reporting of socially acceptable behaviour results in inaccurate responses. The literature finds that respondents are more likely to present the socially acceptable answer than reflect realty (Hassan et al., 2016).

7.2.2 Hypothesis 2

H2: *A positive social norm towards saving leads to an increased behavioural intention to save*

This hypothesis was not supported. This indicates that the social norm towards saving, among the black middle class in South Africa, does not impact the behavioural intention to save. Also, the research found that there is a negative social norm. The coefficient was negative, which means that had the hypothesis been supported, the black middle class would have a negative social norm towards saving. The TPB states that a positive (negative) social norm towards saving will drive a positive (negative) behavioural intention to saving, which in turn will result in positive (negative) saving behaviour (Ajzen, 1991). This negative social norm could be partially attributed the fact that fifty percent of the respondents to the survey are characterized as Generation Y (Duh & Struwig, 2015). This generational cohort is deemed impulsive and materialistic (Lazarevic, 2012; Viswanathan & Jain, 2013), making them less likely to save for the long term. Thus, explaining the negative social norm towards saving.

The fact that the hypothesis was not supported could also be due to the operationalisation of the social norm construct, which assumes that individuals consciously comply to the wishes of others (Armitage & Conner, 2001). However, social norms are subtler in their influence. Individuals are less likely to acknowledge that their buying decisions an influenced by others (Armitage & Conner, 2001). Therefore, this construct lends itself to not being supported (Armitage & Conner, 2001).

7.2.3 Hypothesis 3

H3: *Conspicuous consumption, as a social norm, leads to a negative impact on the behavioural intention to save*

This hypothesis is not supported. This indicates that the conspicuous consumption, as a social norm, does not impact the behavioural intention to save of the black middle class in South Africa. Also, conspicuous consumption presented as a negative social norm. The coefficient was negative, which means that had the hypothesis been supported, conspicuous consumption would have a negative impact on the behavioural intention to save. The fact that this hypothesis was not supported, confers with literature which states that the spending behaviour of the black middle class does not reflect conspicuous consumption. Rather, it reflects the accumulation of assets following decades of black South Africans being legally prohibited from participating in the formal economy (Burger et al., 2015; Nieftagodien & van der Berg, 2007). Further to that, the purchase of these goods (which reflect a middle class lifestyle) is perpetuated by new entrants into the middle class, who have yet to acquire these goods. While entrenched members of this social class no longer need to accumulate these goods (Burger et al., 2015).

In this hypothesis not being supported, the research also found that conspicuous consumption is not a social norm among the black middle class.

7.2.4 Hypothesis 4

H4: *Positive perceived behavioural control leads to an increased the behavioural intention to save*

This hypothesis was supported, which suggests that the black middle class in South Africa have a positive perceived behavioural control towards saving. That is, the black middle class have the self-control and self-efficacy to save. This positive PBC positively influences the behavioural intention to save, which drives positive saving behaviour (Ajzen, 1991). The findings contradict the national savings data. Household savings rates (as a percentage of disposable income) have been negative since 2006, despite an increase disposable income (Reserve Bank of South Africa, 2017). This could also be due to over-indebtedness and socio-economic pressures which crowd-out saving behaviour by the black middle class (National Credit Regulator, 2017; Statistics South Africa, 2017a, 2017b).

7.2.5 Hypothesis 5

H5: *A positive behavioural intention has a positive influence on saving behaviour*.

This hypothesis was supported, which suggests that the behavioural intention to save drives positive saving behaviour by black middle class in South Africa. However, the coefficient is

negative, suggesting that there is a negative behavioural intention towards saving. This finding is in contrast to the theory of planned behaviour, which states that an individual's actions are driven by their intention toward the behaviour (therefore, the coefficient should be positive) (Ajzen, 1991). These inconsistent results could be due to a) the mismatch between the scales with which the behavioural intention is tested and saving behaviour is tested (7-point Likert scale vs. binary (yes/no) (Hassan et al., 2016); b) The inherent bias in self-reporting of socially acceptable behaviour results in inaccurate responses (Hassan et al., 2016); c) The TPB has been criticized from being too simplistic and that the exclusion of a more exhaustive list of antecedents fails in its ability to explain behaviour (Sniehotta et al., 2014).

These findings suggest that social norm has the the biggest influence on behavioural intention (despite the hypothesis not being supported). The significant influence of the social norm constructs could be due to the collectivist nature of black South Africans. Black South African culture, through the principle of Ubuntu, has been characterized as collectivist (West, 2014). The literature on collectivist societies suggests that buying decisions are relatively more influenced by social norms (Kongsompong et al., 2009). Thus, black South Africans are likely to be more susceptible, relative to other race groups, to making buying decisions based on the prevalent social norm. In addition, the literature finds that collectivist cultures are less likely to save for retirement. Especially when informal savings, such as stokvels, and credit traditions negate the need for individuals to save outside of the community (Saad-Lessler & Richman, 2014). This suggests that financial services companies and policy makers should focus their efforts to increase saving behaviour on driving a positive social norm towards saving.

Overall, the findings indicate that the black middle class in South Africa have a positive attitude and perceived behavioural control towards the behavioural intention to save. However, this behavioural intention is negative, resulting in negative saving behaviour (as evidenced in the national savings data). The research also found that there is no relationship between the black middle class' social norm towards saving, conspicuous consumption and the behavioural intention to save. It also found that the conspicuous consumption has not become a social norm among the black middle class.

7.3 Managerial Implications

This research sought to determine the antecedents of saving behaviour among the black middle class in South Africa in order to understand which levers to pull to stimulate saving behaviour on the South African economy. The black middle class were deemed an appropriate group to study because this social class constitutes a significant proportion of the population – at least 41% of the middle class population (Kotze et al., 2013). As such, stimulating saving behaviour among this social class could positively influence the national savings statistics.

Therefore, findings of this research are of importance to financial services sector, marketing managers and policy-makers.

Overall, these findings confirm that the black middle class in South Africa do not save. However, the research suggests that only one lever needs to be engaged (social norms) in order to stimulate saving behaviour. That the black middle class have a positive attitude and perceived behavioural control towards saving provides a silver-lining for the outlook for saving behaviour in South Africa. It suggests that there is less of a need to educate this social class on the benefits of saving (attitude) and limited need for financial literacy training (PBC). Efforts should be focused on developing a positive social norm towards savings.

Economic theory (Schwab, 2015; Solow, 1956) underscores that it is crucial for policy-makers to design interventions that encourage saving behaviour. In particular, short-term losses may need to be endured to ensure long term gains. If left unaddressed, South Africa's negative household saving rates are set further hamper the country's economic potential and, over time, reduce the country's global competitiveness. This along with a precarious balance of payment situation (due to the lack of internal capital to fund economic activity), leaves the country vulnerable to currency crises. The black middle class represents a significant portion of the population. Thus, building a positive social norm toward saving and positive saving behaviour among this social class could to alter the national saving statistics. This in turn will aid macroeconomic growth and currency stability.

These findings indicate that conspicuous consumption is not a social norm among the black middle class in South Africa. Thus, it may not be in the only driver of the buying behaviour of the black middle class. In particular, it emphasizes that the black middle class is not a homogenous group whose buying decisions are driven by one dimensional factors. This research suggests that marketing managers should delve deeper into the spending motivations of the social class. Consequently, marketing managers should segment the black middle class by the psychographics, generational cohort and life-stage.

These findings surface the following recommendations. While the National Credit Act (NCA) came into effect in 2006, South African households remain highly indebted (National Credit Regulator, 2017; Reserve Bank of South Africa, 2017). The NCA requires financial institutions to conduct a financial assessment to test whether households can afford the debt. However, these assessments are self-reported and consequently lack independence and accuracy. Rendering this intervention ineffective. Financial institutions could employ software that creates financial statements (income statement and balance sheet) for households in order to obtain a true reflection of affordability. This would allow for a transparent, accurate and independent view of affordability. In conjunction with more stringent affordability criteria (for

example: only 20% of income can be allocated to all debt products) as well as higher cash handling fees in order to limit the ability to circumvent the ability to track spending. Ultimately, the aim is to “crowd-in” saving behaviour by minimising the amount of disposable income allocated to debt.

South Africa’s socio-economic realities also present a challenge to saving by the black middle class in South Africa. These realities are the ambit of policy-makers, limiting the influence that the black middle class has on alleviating them. Similarly, policy-makers can incentivize saving behaviour. The introduction of the retail bonds and tax-free saving accounts are examples of such policy-led incentives. This could go further by allocating a portion of household tax deduction to a savings vehicle. This would result in a decline in, desperately required, tax revenue in the short term, However, over the long term, as the country’s household savings increase, it enables it to finance its economic expansion, which in turns results in an expansion of tax revenue.

This research indicates that social norm has no relationship with behavioural intention to save and as such saving behaviour. This finding is likely due to the fact that fifty percent of the respondents are characterized as Generation Y, who are deemed impulsive and materialistic (Lazarevic, 2012; Viswanathan & Jain, 2013). In addition, the national household savings data underscores that South Africa’s have negative social norm toward saving. Social norm “refers to the perceived social pressure to perform or not to perform the behaviour” (Ajzen, 1991, p.188). Therefore, financial institutions could employ mechanisms to apply “peer pressure” to drive a positive social norm towards saving behaviour. These include using their customer collateral as a “savings badge”. Similar to how customer collateral is used to signal financial wealth (gold vs. platinum vs. black bank card), financial institutions could further stratify these categories to include an indicator for positive saving behaviour (for example, double black for higher savings rates).

7.4 Theoretical Implications

This research contributes to the literature on savings behaviour in South Africa by exploring the antecedents of saving behaviour and whether conspicuous consumption has become a social norm among the black middle class in South Africa. Further, this research is the first to apply the Theory of Planned Behaviour to saving behaviour of the black middle class in South Africa.

This research fills the gap in the literature on the the saving behaviour of the black middle class in South Africa. Despite the importance of savings to an economy, there is a dearth of research the drivers of saving behaviour in South Africa. In particular, the drivers of saving behaviour among the black middle class. This social class constitutes a significant proportion

of South African society. Therefore, understanding the antecedents of saving behaviour among this social class contributes to the literature on saving behaviour in South Africa.

In addition, the literature on the black middle class in South Africa is biased towards the spending behaviour of this social class. Specifically, this spending behaviour of the black middle class in South Africa has been characterised as conspicuous consumption (Burger et al., 2015). This research sought to test whether conspicuous consumption has become a social norm among the black middle class. The findings of this research could not support the hypothesis that conspicuous consumption has become a social norm among the black middle class in South Africa. However, anecdotal evidence suggests that conspicuous consumption could be a social norm among the black middle class in South Africa. Future research could be conducted to test this specifically.

Lastly, this research contributes to the literature by being the first to apply the TPB to savings behaviour in the South African context. The literature on saving in South Africa has yet to explore the antecedents of saving behaviour through the lens of the TPB. Specifically, the TPB has yet to be applied to saving behaviour of the black middle class in South Africa.

This research contributes to the literature on savings behaviour in South Africa by exploring the antecedents of saving behaviour and whether conspicuous consumption has become a social norm among the black middle class in South Africa. In addition, this research is the first to apply the Theory of Planned Behaviour to saving behaviour of the black middle class in South Africa.

7.5 Limitations of research

This section outlines the limitations to this research.

Sampling technique: Convenience and snowball sampling were employed in this research. The disadvantages of these sampling techniques is that the sample may be unrepresentative of the population if the researcher's network is not wide enough (Wegner, 2016). This is evidenced by the fact that 50% of the sample is aged between 25- 35 years old. This suggests that there is not enough variation in the sample and this may result in a bias in the results (Wegner, 2016).

Sample size: While the sample size is large enough to apply the SEM technique, that it falls below the rule of thumb 200 respondents may affect the results of the SEM (Hair et al., 2010). The sample size employed in this research is 171. In particular, relatively small sample sizes may result in findings of non-significant parameters (Byrne, 2010). This may have contributed to H2 and H3 not being supported.

Measurement instrument: The responses related to saving behaviour and conspicuous consumption may be biased to providing a positive response. It has been found in the literature has found that when questionnaires are self-reported, especially when relating to socially acceptable behaviour, the responses are biased toward is deemed socially acceptable (Hassan et al., 2016). Thus, the responses may not be accurate or reflect reality. This may have contributed to H2 and H3 not being supported.

The specification of the measurement instrument may also have resulted in these inconsistent results. Behaviour is measured on a binary response, while intention is measured on a Likert-scale (Hassan et al., 2016). Though saving behaviour could only be measured on a binary scale, this may have contributed to the inconsistencies in the results.

Overall: The social norm and conspicuous consumption constructs were not supported in this research. Therefore, the inferences that can be drawn on their impact on behavioural intention and saving behaviour should be interpreted with caution.

7.6 Future Research

This section outlines areas of future research as derived from this research.

Future research could find an alternate manner to operationalize the social norm construct in the measurement instrument. The operationalization of social norm within the TBP suggests that individuals consciously comply with the wishes of others (Armitage & Conner, 2001). However, social norms are more sub-conscious and less explicit or direct. In addition, individuals are less likely to admit to their actions being driven by social pressures (Armitage & Conner, 2001). Thus, a subtle operationalization may yield different statistical results.

The finding that conspicuous consumption has no relationship with behavioural intention, and as such saving behaviour, in South Africa is counter-intuitive. The acquisition of luxury goods, specifically funded through debt (National Credit Regulator, 2017), is likely to crowd-out savings. In addition, given that fifty percent the respondents in this sample are Generation Y, who are characterised as materialistic and heavily influenced by their peers (Lazarevic, 2012; Viswanathan & Jain, 2013), this should be reflected in the research. That is, the conspicuous consumption construct should have been supported. Lastly, anecdotal evidence (for instance, concerns about downgrading of homes/cars for fear of negative perceptions) suggests that conspicuous consumption is a social norm among the black middle class. Further research should be conducted into conspicuous consumption to test whether it has indeed become a social norm among the black middle class in South Africa.

Future research may also consider including additional constructs in the study when applying the TPB. The TPB has been criticised for its exclusion of emotional decision-making and other

drivers of intention such as habit strength, self-determination, self-regulation and anticipated regret (Sniehotta et al., 2014). These additional constructs may better explain the antecedents of saving behaviour among the black middle class in South Africa.

7.7 Conclusion

This research sought to determine the antecedents of saving behaviour among the black middle class in South Africa, through the lens of the Theory of Planned Behaviour. The TPB states that attitude, social norm, and perceived behavioural control towards a behaviour drives the behavioural intention toward the behaviour, which in turn drives the behaviour (Ajzen, 1991). The research found that the black middle class in South Africa have a positive attitude and perceived behavioural control towards saving behaviour. This is in line with the literature on the TPB and savings. However, social norm and conspicuous consumption, as a social norm, were found to be negative and not to have an impact on behavioural intention.

This research suggests that financial institutions and policy-makers should focus their efforts on building a positive social norm towards saving behaviour. This in turn should result in an increase in saving behaviour in the country.

The research also suggests that the black middle class is not a homogenous group. Marketing managers should delve deeper into understanding the nuances of this group and the motivators of their buying decisions.

This research also contributes to the body of literature as it is the first to apply the TPB to saving behaviour in South Africa and specifically among the black middle class in South Africa. It contributes to the literature on saving in South Africa by determining the antecedents of saving behaviour among the black middle class in South Africa. It also contributes to the literature by testing whether conspicuous consumption has indeed become a social norm among the black middle class in South Africa.

Overall, the results of this research suggest a silver-lining for saving behaviour in South Africa. Determined interventions in the financial sector and by policy-makers should see a shift in national savings rates in coming years.

References

Ajzen, I. (1991). The Theory of Planned Behavior. *Organisational Behavior and Human Decision Proceesses*, *50*, 179–211.

Ajzen, I. (2010). Constructing a theory of planned behavior questionnaire. *Biofeedback and Selfregulation*, *17*, 1–7. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology and Health*, *26*(9), 1113–1127. https://doi.org/10.1080/08870446.2011.613995

Amusa, K. (2014). Savings and Economic Growth in South Africa: a Multivariate Analysis. *Journal of Economic and Financial Sciences Journal of Economic and Financial Sciences | JEF*, *7*(71), 73–88.

Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behaviour : A meta-analytic review. *British Journal of Social Psychology*, *40*, 471–499.

Birdsall, N., Graham, C., & Pettinato, S. (2000). Stuck In The Tunnel: Is Globalization Muddling The Middle Class?, (14), 37. https://doi.org/10.2139/ssrn.277162

Bonnefond, C., Clement, M., & Combarnous, F. (2015). In search of the elusive Chinese urban middle class: an exploratory analysis. *Post-Communist Economies*, *27*(1), 41–59. https://doi.org/10.1080/14631377.2015.992223

Bonnet, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, *36*, 3–15. https://doi.org/10.1002/job

Burger, R., Louw, M., Pegado, B. B. I. D. O., & van der Berg, S. (2015). Understanding consumption patterns of the established and emerging South African black middle class. *Development Southern Africa*, *32*(1), 41–56. https://doi.org/10.1080/0376835X.2014.976855

Burger, R., Mcaravey, C., & van der Berg, S. (2017). The Capability Threshold: Re-examining the Definition of the Middle Class in an Unequal Developing Country. *Journal of Human Development and Capabilities*, *18*(1), 89–106. https://doi.org/10.1080/19452829.2016.1251402

Byrne, B. M. (2010). *Structural Equation Modeling with AMOS* (Second Edi). Routledge Taylor & Francis. Retrieved from http://crispindia.org/wp-content/uploads/2016/11/Structural-equation-modeling-with-AMOS.pdf

Charles, K. K., Hurst, E., & Roussanov, N. (2009). *Conspicuous Consumption and Race*. *The Quarterly Journal of Economics* (Vol. 17).

https://doi.org/10.1162/qjec.2009.124.2.425

Chipote, P., & Tsegaye, A. (2014). Determinants of Household Savings in South Africa : An Econometric Approach (1990-2011). *Mediterranean Journal of Social Sciences*, *5*(15), 183–190. https://doi.org/10.5901/mjss.2014.v5n15p183

Chipp, K., Kleyn, N., & Manzi, T. (2011). Catch Up and Keep Up: Relative Deprivation and Conspicuous Consumption in an Emerging Market. *Journal of International Consumer Marketing*, *23*(May 2015), 117–134. https://doi.org/10.1080/08961530.2011.543053

Cohen, J. (1992). A Power Primer. *Psychological Bulletin*, *112*(July), 155–159.

Cooke, R., Dahdah, M., Norman, P., & French, D. P. (2016). How well does the theory of planned behaviour predict alcohol consumption ? A systematic review and meta-analysis. *Health Psychology Review*, *10*(20), 148–167. https://doi.org/10.1080/17437199.2014.947547

Creswell, J. W. (2012). *Educational Research: Planning, Conducting and Evaluatiing Quantitative and Qualitative Research* (Fourth). Pearson Education Limited.

Duh, H., & Struwig, M. (2015). Justification of generational cohort segmentation in South Africa. *International Journal of Emerging Markets*, *10*(1), 89–101. https://doi.org/10.1108/IJOEM-08-2012-0078

Eriksson, K., & Hermansson, C. (2014). Searching for new saving behavior theories. *International Journal of Bank Marketing*, *32*(4), 279–299. https://doi.org/10.1108/IJBM-03-2014-0040

Farrell, L., Fry, T. R. L., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, *54*, 85–99. https://doi.org/10.1016/j.joep.2015.07.001

Field, A. (2009). *Discovering Statistics Using SPSS* (Third Edit). London: Sage Publications.

Funfgeld, B., & Wang, M. (2009). Attitudes and behaviour in everyday finance : evidence from Switzerland. *International Journal of Bank Marketing*, *27*(2), 108–128. https://doi.org/10.1108/02652320910935607

Furnham, A. (1997). The half full or half empty glass : The views of the economic optimist vs pessimist. *Human Relations*, *50*(2), 197–209.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (Seventh Ed). N.J.: Pearson Prentice Hall.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, *19*(2), 139–151. https://doi.org/10.2753/MTP1069-6679190202

Hassan, L. M., Shiu, E., & Shaw, D. (2016). Who Says There is an Intention – Behaviour Gap? Assessing the Empirical Evidence of an Intention – Behaviour Gap in Ethical Consumption. *Journal of Business Ethics*, *136*, 219–236. https://doi.org/10.1007/s10551-014-2440-0

International Monetary Fund. (2017). IMF World Economic Outlook. Retrieved 8 October 2017, from https://www.imf.org/external/pubs/ft/weo/2017/01/weodata/index.aspx

Investec. (2016). *Investec GIBS Savings Index July 2016*. Retrieved from https://www.investec.com/en_za/welcome-to-investec/news-and-views/insights/personal-finance/why-south-africa-needs-to-save-itself.html

Investopedia. (2017). BRIC. Retrieved 29 October 2017, from http://www.investopedia.com/terms/b/bric.asp

Kapingura, F. M., & Alagidede, P. (2016). The relationship between financial sector development and savings mobilisation in South Africa: An empirical study. *Development Southern Africa*, *3637*(April), 1–16. https://doi.org/10.1080/0376835X.2016.1203760

Kaus, W. (2013). Conspicuous consumption and 'race': Evidence from South Africa. *Journal of Development Economics*, *100*(1), 63–73. https://doi.org/10.1016/j.jdeveco.2012.07.004

Kharas, H. (2010). The emerging middle class in developing countries. *OECD Development Centre*. Retrieved from https://www.oldmutual.co.za/docs/default-source/personal-solutions/financial-planning/savings-and-monitor/latest-research-results/omsim_2017.pdf

Kongsompong, K., Green, R., & Patterson, P. (2009). Collectivism and social influence in the buying decision : A four-country study of inter-and intra-national differences. *Australasian Marketing Journal*, *Sept*(17), 142–129. Retrieved from https://www.investec.com/en_za/welcome-to-investec/news-and-views/insights/personal-finance/why-south-africa-needs-to-save-itself.html

Kotze, H., du Toit, P., Steenkamp, C., Burger, R., & Van Der Berg, S. (2013). The Emergent South African Middle Class. *Research on Socio-Economic Policy, University of Stellenbosch*, 4.

Kravets, O., & Sandikci, O. (2014). Competently ordinary: New middle class consumers in the emerging markets. *Journal of Marketing*, *78*(July), 125–140. https://doi.org/http://dx.doi.org/10.1509/jm.12.0190

Krige, D. (2015). 'Growing up' and 'moving up': metaphors that legitimise upward social mobility in Soweto. *Development Southern Africa*, *32*(1), 104–117. https://doi.org/http://dx.doi.org/10.1080/0376835X.2014.975337

Lazarevic, V. (2012). Encouraging brand loyalty in fickle generation Y consumers. *Young Consumers*, *13*(1), 45–61. https://doi.org/10.1108/17473611211203939

Lindbeck, A. (1997). Incentives and Social Norms in Household Behavior. *The American Economic Review*, *87*(2), 370–377.

Lopez-Calva, L. F., & Ortiz-Juarez, E. (2014). A vulnerability approach to the definition of the middle class. *Journal of Economic Inequality*, *12*, 23–47. https://doi.org/10.1007/s10888-012-9240-5

Lown, J. M. (2011). Development and Validation of a Financial Self-Efficacy Scale. *Journal for Financial Counseling and Planning*, *22*(2), 54–63.

Lown, J. M., Kim, J., Gutter, M. S., & Hunt, A. (2015). Self-efficacy and Savings Among Middle and Low Income Households. *Journal of Family and Economic Issues*, 491–502. https://doi.org/10.1007/s10834-014-9419-y

Lunt, P. K., & Livingstone, S. M. (1991). Psychological, social and economic determinants of saving: comparing recurrent and total savings. *Journal of Economic Psychology*, *12*(4), 621–641. https://doi.org/10.1016/0167-4870(91)90003-C

Martínez-López, F. J., Gázquez-Abad, J. C., & Sousa, C. M. P. (2013). Structural equation modelling in marketing and business research. *European Journal of Marketing*, *47*(1/2), 115–152. https://doi.org/10.1108/03090561311285484

Mattes, R. (2015). South Africa's Emerging Black Middle Class: A Harbinger of Political Change. *Journal of International Development*, *27*, 665–692. https://doi.org/10.1002/jid

Mauldin, T. A., Henager, R., Bowen, C. F., & Cheang, M. (2016). Barriers and Facilitators to Saving Behavior in Low- to Moderate-Income Households. *Journal of Financial Counseling and Planning*, *27*(2), 231–251.

McEachan, R. R. C., Conner, M., Taylor, N. J., & Lawton, R. J. (2011). Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: a meta-analysis. *Health Psychology Review*, *5*(2), 1–48. https://doi.org/10.1080/17437199.2010.521684

Momentum. (2014). *SA Household Financial Wellness Index*. Retrieved from https://www.momentum.co.za/for/you/sponsorships/household-financial-wellness-index

Mongale, I. P., Mukuddem-Petersen, J., Petersen, M. A., & Meniago, C. (2013). Household Savings in South Africa: An Econometric Analysis. *Mediterranean Journal of Social Sciences*, *4*(13), 519–530. https://doi.org/10.5901/mjss.2013.v4n13p519

Monyela, C., & Madonsela, S. (2017). Note on the flow of funds in South Africa's national financial account for the year 2016. *Quarterly Bulletin: South African Reserve Bank*, *June*(284).

National Credit Regulator. (2017). *Consumer Credit Market Report*. Retrieved from http://www.ncr.org.za/publications/Consumer Credit Market Report/ccmr march 2011.pdf

National Treasury of South Africa. (2017). Revenue and tax policy. In *National Budget 2017*. Retrieved from http://www.treasury.gov.za/documents/national budget/2017/review/Chapter 4.pdf

Nieftagodien, S., & van der Berg, S. (2007). Consumption patterns and the black middle class : The role of assets. *Stellenbosch Economic Working Papers*, *02/07*, 1–24.

OECD. (2017). OECD Data. Retrieved 8 October 2017, from https://data.oecd.org/hha/household-savings.htm

Old Mutual. (2017). *Old Mutual Savings Monitor July 2017*. Retrieved from https://www.oldmutual.co.za/docs/default-source/personal-solutions/financial-planning/savings-and-monitor/latest-research-results/omsim_2017.pdf

Ozkan, S., & Kanat, I. E. (2011). E-Government adoption model based on theory of planned behavior: Empirical validation. *Government Information Quarterly*, *28*(4), 503–513. https://doi.org/10.1016/j.giq.2010.10.007

Palley, T. I. (2010). The Relative Permanent Income Theory of Consumption: A Synthetic Keynes–Duesenberry–Friedman Model. *Review of Political Economy*, *22*(1), 41–56. https://doi.org/10.1080/09538250903391954

Peterson, R. A. (1994). Meta-analysis of Cronbach's Coefficient Alpha. *Journal of Consumer Research*, *21*(2), 381–391. Retrieved from https://data.oecd.org/hha/household-savings.htm

Remington, T. F. (2011). The Russian Middle Class as Policy Objective. *Post-Soviet Affairs*, *27*(2), 97–120. https://doi.org/10.2747/1060-586X.27.2.97

Reserve Bank of South Africa. (2017). *Quarterly Bulletin*. Retrieved from https://www.resbank.co.za/Lists/News and Publications/Attachments/7847/01FullQuarterlyBulletin – June 2017.pdf

Robbins, S. P., & Judge, T. A. (2015). *Organizational Behaviour* (Sixteenth). Edinburgh Gate, Harlow, Essex: Pearson Education Limited.

Ruefenacht, M., Schlager, T., Maas, P., & Puustinen, P. (2015). Drivers of long-term savings behavior from the consumers' perspective. *International Journal of Bank Marketing*, *33*(7), 922–943. https://doi.org/10.1108/IJBM-11-2014-0168

Saad-Lessler, J., & Richman, K. (2014). The impact of collectivism on savings behavior : a case study of Mexican-Americans and non-Mexican Latinos. *Review of Economics of the Household*, *12*, 493–515. https://doi.org/10.1007/s11150-014-9243-z

Saunders, M., & Lewis, P. (2012). *Doing Research in Business & Management: An Essential Guide to Planning Your Project*. Essex: Pearson Education Limited.

Schwab, K. (2015). *The global competitiveness report 2015-2016*. *World Economic Forum* (Vol. 5). https://doi.org/92-95044-35-5

Shefrin, H. M., & Thaler, R. H. (1988). The Behavioral Life-Cycle Hypothesis. *Economic Inquiry*, *26*(4), 609–43. https://doi.org/10.1111/j.1465-7295.1988.tb01520.x

Simleit, C., Keeton, G., & Botha, F. (2011). The Determinants of Household Savings in South Africa. *Journal for Studies in Economics and Econometrics*, *35*(3), 1–25.

Sniehotta, F. F., Presseau, J., & Araújo-soares, V. (2014). Time to retire the theory of planned behaviour. *Health Psychology Review*, *8*(1), 1–7. https://doi.org/10.1080/17437199.2013.869710

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *Quarterly Journal of Economics*, *70*(1), 65–94. https://doi.org/10.1007/s10644-012-9135-2

Somalingam, A. D., & Shanthakumari, R. D. (2015). Liberatlisation and India's Middle Class Economy: A critique. *International Journal of Information, Business and Management*, *7*(4), 130–144.

South Africa: Department of Labour. Employment Equity Act No 55, 1998, 400 Government Gazette § (1998). https://doi.org/www.acts.gov.za [accessed 12 October 2015]

Southall, R. (2014). The New Black Middle Class in South Africa. *Journal of Modern African Studies*, *52*(4), 647–670.

Southern Africa Labour and Development Research Unit. (2017). National Income Dynamic Study. Retrieved 14 July 2017, from http://www.nids.uct.ac.za

Statistics South Africa. (2017a). *Poverty Trends in South Africa: An examination of absolute poverty between 2006 and 2015*. *Statistics South Africa*.

Statistics South Africa. (2017b). *Quarterly Labour Force Survey*. *Quarterly Labour Force Survey* (Vol. PO211). Retrieved from http://www.statssa.gov.za/publications/P0211/P02112ndQuarter2017.pdf

Syden, M. (2014). Trends and Determinants of Household Saving in South Africa. *Economic Affairs*, *59*(2), 191–208.

The World Bank. (2017a). GDP per Capita. Retrieved 28 October 2017, from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

The World Bank. (2017b). The World Bank in South Africa. Retrieved 28 October 2017, from http://www.worldbank.org/en/country/southafrica/overview

Trigg, A. B. (2001). Veblen, Bourdieu, and Conspicuous Consumption. *Journal of Economic Issues*, *35*(1), 99–115. https://doi.org/10.2307/4227638

UCT Unilever Institute of Strategic Marketing. (2006). Black Diamond. Retrieved from http://www.uctunileverinstitute.co.za/research/black-diamond/

UCT Unilever Institute of Strategic Marketing. (2012). 4 Million & Rising. Retrieved from http://www.uctunileverinstitute.co.za/research/4-million-rising/

United States of America Federal Reserve. (2017). Federal Reserve FOMC statement. Retrieved 28 October 2017, from https://www.federalreserve.gov/newsevents/pressreleases/monetary20170920a.htm

Veblen, T. (1899). The Theory of the Leisure Class. *A Penn State Electronic Classics Series Publication*, *7*(4). https://doi.org/10.1086/250610

Visagie, J., & Posel, D. (2013). A Reconsideration of What and Who is Middle Class in South Africa. *Development Southern Africa*, *30*(2), 149–167. https://doi.org/10.1080/0376835X.2013.797224

Viswanathan, V., & Jain, V. (2013). A dual-system approach to understanding 'generation Y' decision making. *Journal of Consumer Marketing*, *30*(6), 484–492. https://doi.org/10.1108/JCM-07-2013-0649

Wärneryd, K. E. (1989). On the psychology of saving: An essay on economic behavior. *Journal of Economic Psychology*, *10*(4), 515–541. https://doi.org/10.1016/0167-4870(89)90041-X

Watanabe, T., Berry, T. R., Willows, N. D., & Bell, R. C. (2015). Assessing Intentions to Eat Low-Glycemic Index Foods by Adults with Diabetes Using a New Questionnaire Based on the Theory of Planned Behaviour. *Canadian Journal of Diabetes*, *39*(2), 94–100. https://doi.org/10.1016/j.jcjd.2014.09.001

Wegner, T. (2016). *Applied business statistics- Methods and Excel based Applications* (4th ed.). Claremont: Juta and Company Limited.

Wejnert, C., & Heckathorn, D. D. (2008). Web-Based Network Sampling: Efficiency and Efficacy of Respondent-Driven Sampling for Online Research. *Sociological Methods & Research*, *37*(1), 105–134. https://doi.org/10.1177/0049124108318333

West, A. (2014). Ubuntu and Business Ethics: Problems, Perspectives and Prospects. *Journal of Business Ethics*, *121*(1), 47–61. https://doi.org/10.1007/s10551-013-1669-3

Zizzamia, R., Schotte, S., Leibbrandt, M., & Ranchhod, V. (2016). *Vulnerability and the middle class in South Africa by* (National Income Dynamics Study No. 188).

Zwane, T., Greyling, L., & Maleka, M. (2016). The Determinants Of Household Savings In South Africa: A Panel Data Approach. *International Business & Economics Research*, *15*(4), 209–219.

Appendices

Appendix 4.1: Theory of Planned Behaviour: Saving behaviour questionnaire

I am conducting research on the saving behaviour among the Black middle class in South Africa. This is for my thesis as part of my MBA qualification with the Gordon Institute of Business Science. In particular, this questionnaire aims to understand the underlying drivers of the saving behaviour and should take no more than 20 minutes of your time. Your participation is voluntary and you can withdraw at any time without penalty. All data will be kept confidential and anonymous. By completing the survey, you indicate that you voluntarily participate in this research. Please feel free to forward on the questionnaire. If you have any concerns, please contact my supervisor or me. Our details are provided below.

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Questionnaire

Age

25 years – 35 years ☐

36 years – 45 years ☐

46 years – 55 years ☐

56 years and above ☐

Race

African ☐

Coloured ☐

Indian/Asian ☐

White ☐

Gender

Female ☐

Male ☐

Income Range

R20 125 - R26 667 ☐

R26 668 - R38 125 ☐

R38 124 - R48,333 ☐

R48,333 – R73,750

Education

No school ☐

Secondary school ☐

Technical /vocational qualification ☐

Tertiary Education ☐

Occupation

Professional ☐

Office staff ☐

Skilled worker

Non-skilled worker ☐

Executive ☐

Middle-class Status

Do you consider yourself as being part of the middle class or as being middle class?

Yes ☐

No ☐

Saving

Do you save money monthly (excluding your employer mandated retirement fund)

☐

Yes

No ☐

If yes, please indicate the following:

Commercial bank interest-baring account ☐

(savings account, 32-day deposit, fixed deposit)

Stokvel or investment club ☐

Tax free saving account ☐

Retail Savings Bond ☐

Unit trusts or ETFs ☐

Shares ☐

Indicate whether you agree with the statement on a scale of 1 – 7. Where 1 represents disagreement and 7 reflects agreement.

S1	**Attitude towards Saving**									
Q1	I regard long-term savings as beneficial	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q2	I regard long-term savings as wise	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q3	I regard long-term savings as necessary	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q4	I regard long-term saving as expressing a sound plan for my life	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q5	Planning for the long-term is the best way to proceed in life	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q6	I regard long-term savings as pleasant	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q7	I regard long-term savings as convenient	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
S2	**Social norm**									
People important to you are defined as friends, family, society, etc. – anyone or group of people whose opinion of you is important to you and how you view yourself										
Q8	People important to me have advised me to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q9	People important to me think it is a good idea to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q10	People important to me approve of me saving for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q11	People important to me want me to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q12	Many people who are important to me **do** save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q13	The people in my life whose opinions I value **do** save for the long term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q14	People important to me have advised me to purchase the latest car or bigger house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q15	People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q16	People important to me approve of me having latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

Q17	People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q18	People important to me want me to have the latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q19	Many people who are important to me **do** have the latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q20	The people in my life whose opinions I value **do** have the latest/most expensive car, cellphone, clothes or house	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
S3	**Perceived Behavioural Control**									
Q21	I do not feel equipped for the decision to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q22	I tend to postpone financial decisions	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q23	I get unsure by the language of financial experts	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q24	I am anxious about long-term savings affairs	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q25	I have the self-discipline to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q26	I have the ability to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q27	It would be easy for me to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q28	I am confident I would be able to save for the long-term	Strongly Disagree	1	2	3	.4	5	6	7	Strongly Agree
Q29	If it were entirely up to me, I am confident that I would save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
S4	**Intention**									
Q30	I intend to save for the long-term in the next three-months	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q31	I want to save for the long-term	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree
Q32	I plan to save for the long-term in the next three-months	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

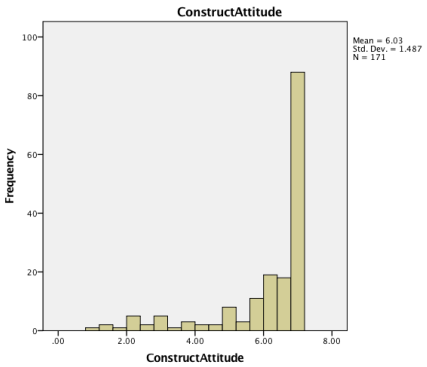
Q33	I have saved in the past three-months	Strongly Disagree	1	2	3	4	5	6	7	Strongly Agree

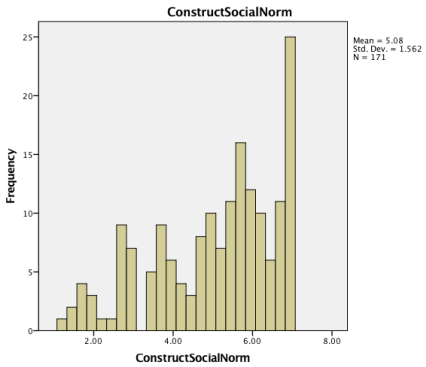
Appendix 4.2: Coding

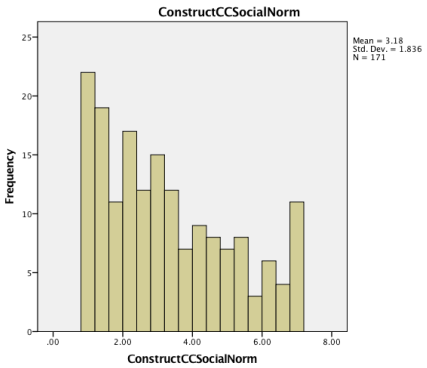
Variable	Code
How old are you?	
25 years – 35 years	1
36 years – 45 years	2
46 years – 55 years	3
56 years and above	4
What is your gender?	
Female	1
Male	2
What is the highest level of education completed?	
Secondary school	1
Technical /vocational qualification	2
Tertiary Education	3
Which of the following best describes your occupation?	
Office worker	1
Skilled worker	2
Professional	3
Executive	4
Do you consider yourself as being part of the middle class or as being middle class?	
Yes	1
No	2
Do you save money monthly (excluding your employer mandated retirement fund)?	
Yes	1
No	2
Income	
R20,125 - R26,667	1

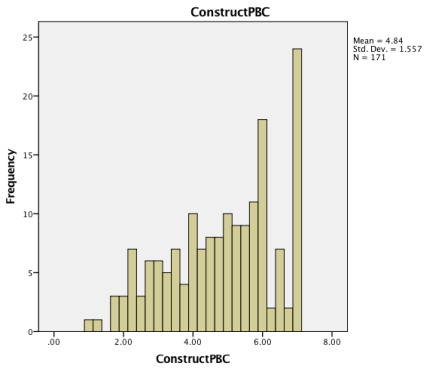
R26,668 - R38,125	2
R38,126 - R48,333	3
R48,334 - R73,750	4
Recoding the reverse scales	
Questions 21- 25 are written in the negative. If a respondent strongly agrees this is a negative response and should have a lower number.	
1	7
2	6
3	5
4	4
5	3
6	2
7	1

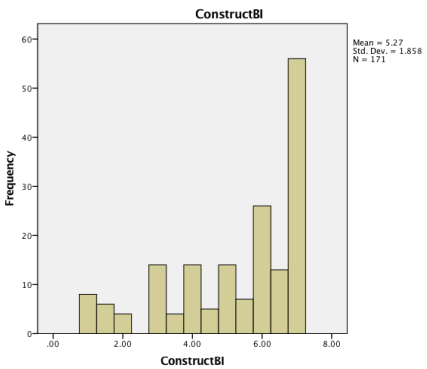
Appendix: 4.3: Histograms











Appendix: 4.4: Kolmogorov-Smirnov (K-S) test

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Construct Attitude	.256	171	.000	.699	171	.000
Construct Social Norm	.115	171	.000	.927	171	.000
Construct CC Social Norm	.120	171	.000	.913	171	.000
Construct PBC	.094	171	.001	.951	171	.000
Construct BI	.209	171	.000	.844	171	.000

a. Lilliefors Significance Correction

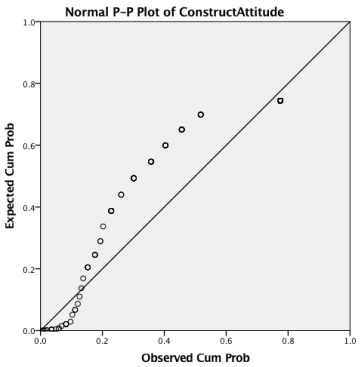
Appendix: 4.5: Lavene's Test

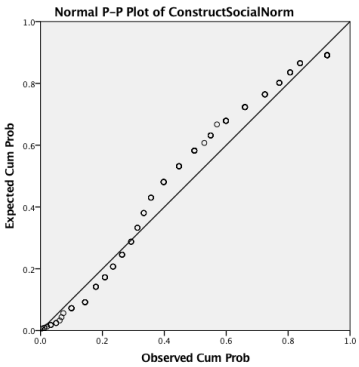
Test of Homogeneity of Variance

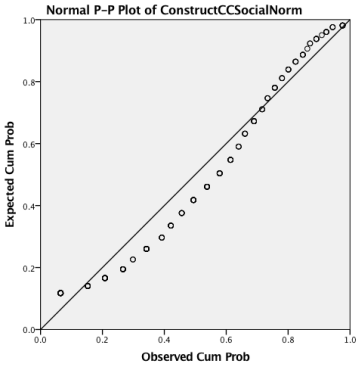
		Levene Statistic	df1	df2	Sig.
Construct Attitude	Based on Mean	1.624	1	161	.204
	Based on Median	.000	1	161	.999
	Based on Median and with adjusted df	.000	1	134.198	.999
	Based on trimmed mean	.480	1	161	.489
Construct Social Norm	Based on Mean	.286	1	161	.593
	Based on Median	.162	1	161	.688
	Based on Median and with adjusted df	.162	1	158.115	.688
	Based on trimmed mean	.199	1	161	.657

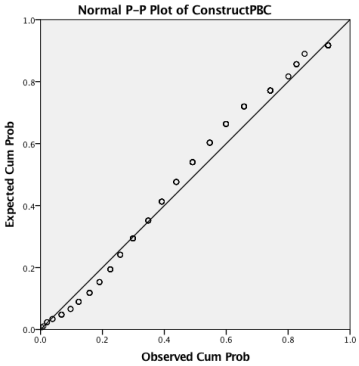
Construct CC Social Norm	Based on Mean	1.141	1	161	.287
	Based on Median	.415	1	161	.520
	Based on Median and with adjusted df	.415	1	160.751	.520
	Based on trimmed mean	.985	1	161	.322
Construct PBC	Based on Mean	.044	1	161	.835
	Based on Median	.088	1	161	.767
	Based on Median and with adjusted df	.088	1	160.411	.767
	Based on trimmed mean	.067	1	161	.797
Construct BI	Based on Mean	8.593	1	161	.004
	Based on Median	7.858	1	161	.006
	Based on Median and with adjusted df	7.858	1	160.992	.006
	Based on trimmed mean	8.626	1	161	.004

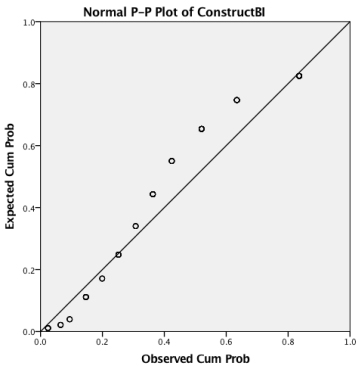
Appendix: 4.6: Linearity Test











Appendix 4.7: Autocorrelation Durbin-Watson Test

```
REGRESSION
 /MISSING LISTWISE
 /STATISTICS COEFF OUTS R ANOVA
 /CRITERIA=PIN(.05) POUT(.10)
 /NOORIGIN
 /DEPENDENT AveBehaviouralIntention
 /METHOD=ENTER AveAttitude AveSocialNorm AveSocialNormCC AvePBC
 /RESIDUALS DURBIN.
```

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	AvePBC, AveSocialNormCC, AveSocialNorm, AveAttitude[b]	.	Enter

a. Dependent Variable: AveBehaviouralIntention

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.666[a]	.443	.430	1.14061	1.748

a. Predictors: (Constant), AvePBC, AveSocialNormCC, AveSocialNorm, AveAttitude

b. Dependent Variable: AveBehaviouralIntention

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	171.973	4	42.993	33.047	.000[b]
	Residual	215.964	166	1.301		
	Total	387.937	170			

a. Dependent Variable: AveBehaviouralIntention

b. Predictors: (Constant), AvePBC, AveSocialNormCC, AveSocialNorm, AveAttitude

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.724	.505		1.434	.154
AveAttitude	.508	.081	.478	6.294	.000
AveSocialNorm	-.059	.070	-.060	-.836	.404
AveSocialNormCC	.006	.058	.007	.109	.913
AvePBC	.454	.085	.351	5.315	.000

a. Dependent Variable: AveBehaviouralIntention

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.0351	7.2792	5.5015	1.00579	171
Residual	-3.06247	3.41404	.00000	1.12711	171
Std. Predicted Value	-2.452	1.768	.000	1.000	171
Std. Residual	-2.685	2.993	.000	.988	171

a. Dependent Variable: AveBehaviouralIntention

Appendix 5.1: Internal Scales

Appendix: 5.1: Attitude

```
RELIABILITY
  /VARIABLES=Q1 Q2 Q3 Q4 Q5 Q6 Q7
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	171	.0
	Excluded[a]	1048386	100.0
	Total	1048557	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.928	.934	7

Item Statistics

	Mean	Std. Deviation	N

I regard long-term savings as beneficial	6.13	1.557	171
I regard long-term savings as wise	6.18	1.566	171
I regard long-term savings as necessary	6.11	1.566	171
I regard long-term saving as expressing a sound plan for my life	5.93	1.615	171
Planning for the long-term is the best way to proceed in life	5.78	1.655	171
I regard long-term savings as pleasant	4.55	1.923	171
I regard long-term savings as convenient	4.56	1.959	171

Inter-Item Correlation Matrix

	I regard long-term savings as beneficial	I regard long-term savings as wise	I regard long-term savings as necessary	I regard long-term saving as expressing a sound plan for my life	Planning for the long-term is the best way to proceed in life	I regard long-term savings as pleasant
I regard long-term savings as beneficial	1.000	.895	.928	.835	.786	.437
I regard long-term savings as wise	.895	1.000	.904	.803	.710	.378
I regard long-term savings as necessary	.928	.904	1.000	.873	.827	.466

I regard long-term saving as expressing a sound plan for my life	.835	.803	.873	1.000	.868	.500
Planning for the long-term is the best way to proceed in life	.786	.710	.827	.868	1.000	.551
I regard long-term savings as pleasant	.437	.378	.466	.500	.551	1.000
I regard long-term savings as convenient	.485	.430	.488	.537	.556	.824

Inter-Item Correlation Matrix

	I regard long-term savings as convenient
I regard long-term savings as beneficial	.485
I regard long-term savings as wise	.430
I regard long-term savings as necessary	.488
I regard long-term saving as expressing a sound plan for my life	.537
Planning for the long-term is the best way to proceed in life	.556
I regard long-term savings as pleasant	.824
I regard long-term savings as convenient	1.000

Scale Statistics

Mean	Variance	Std. Deviation	N of Items

39.23	98.945	9.947	7

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I regard long-term savings as beneficial	33.10	73.819	.849	.883	.911
I regard long-term savings as wise	33.06	75.044	.791	.851	.916
I regard long-term savings as necessary	33.12	73.038	.876	.916	.908
I regard long-term saving as expressing a sound plan for my life	33.30	72.531	.866	.838	.909
Planning for the long-term is the best way to proceed in life	33.46	72.450	.843	.800	.911
I regard long-term savings as pleasant	34.68	74.735	.617	.699	.935
I regard long-term savings as convenient	34.68	73.314	.650	.706	.932

Appendix: 5.1: Social Norm

```
RELIABILITY
 /VARIABLES=Q11 Q8 Q9 Q10 Q12 Q13
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=DESCRIPTIVE SCALE CORR
 /SUMMARY=TOTAL.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	168	.0
	Excluded[a]	1048389	100.0
	Total	1048557	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.937	.939	6

Item Statistics

	Mean	Std. Deviation	N
People important to me want me to save for the long-term	5.24	1.650	168

People important to me have advised me to save for the long-term	4.87	1.888	168
People important to me think it is a good idea to save for the long-term	5.23	1.708	168
People important to me approve of me saving for the long-term	5.31	1.692	168
Many people who are important to me do save for the long-term	4.33	1.837	168
The people in my life whose opinions I value do save for the long term	4.73	1.826	168

Inter-Item Correlation Matrix

	People important to me want me to save for the long-term	People important to me have advised me to save for the long-term	People important to me think it is a good idea to save for the long-term	People important to me approve of me saving for the long-term	Many people who are important to me do save for the long-term	The people in my life whose opinions I value do save for the long term
People important to me want me to save for the long-term	1.000	.745	.850	.892	.646	.709
People important to me have advised me to save for the long-term	.745	1.000	.815	.722	.517	.591
People important to me think it is a good idea to save for the long-term	.850	.815	1.000	.879	.602	.699
People important to me approve of me saving for the long-term	.892	.722	.879	1.000	.616	.709
Many people who are important to me do save for the long-term	.646	.517	.602	.616	1.000	.811
The people in my life whose	.709	.591	.699	.709	.811	1.000

opinions I value do save for the long						

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
People important to me want me to save for the long-term	24.47	60.442	.881	.831	.918
People important to me have advised me to save for the long-term	24.84	60.028	.758	.677	.933
People important to me think it is a good idea to save for the long-term	24.48	59.569	.882	.848	.917
People important to me approve of me saving for the long-term	24.40	60.014	.873	.852	.919
Many people who are important to me do save for the long-term	25.38	61.841	.711	.668	.939
The people in my life whose opinions I value do save for the long term	24.98	59.892	.797	.735	.928

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
29.71	85.753	9.260	6

Appendix: 5.1: Conspicuous Consumption

```
RELIABILITY
 /VARIABLES=Q14 Q15 Q16 Q17 Q18 Q19 Q20
 /SCALE('ALL VARIABLES') ALL
 /MODEL=ALPHA
 /STATISTICS=DESCRIPTIVE SCALE CORR
 /SUMMARY=TOTAL.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	168	.0
	Excluded[a]	1048389	100.0
	Total	1048557	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.927	.925	7

Item Statistics

	Mean	Std. Deviation	N

People important to me have advised me to purchase the latest/most expensive car, cellphone, clothes or house	2.83	2.011	168
People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	2.96	2.034	168
People important to me approve of me having latest/most expensive car, cellphone, clothes or house	3.46	1.930	168
People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	3.32	2.103	168
People important to me want me to have the latest/most expensive car, cellphone, clothes or house	3.46	2.000	168
Many people who are important to me do have the latest/most expensive car, cellphone, clothes or house	3.88	1.788	168
The people in my life whose opinions I value do have the latest/most expensive car, cellphone, clothes or house	3.82	1.726	168

Inter-Item Correlation Matrix

	People important to me have advised me to purchase the latest/most expensive car, cellphone, clothes or house	People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	People important to me approve of me having latest/most expensive car, cellphone, clothes or house	People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	People important to me want me to have the latest/most expensive car, cellphone, clothes or house	Many people who are important to me do have the latest/most expensive car, cellphone, clothes or house
People important to me have advised me to purchase the latest/most expensive car, cellphone, clothes or house	1.000	.845	.718	.762	.718	.404
People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	.845	1.000	.812	.815	.768	.419
People important to me approve of me having latest/most expensive car, cellphone, clothes or house	.718	.812	1.000	.817	.796	.540

People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	.762	.815	.817	1.000	.864	.555
People important to me want me to have the latest/most expensive car, cellphone, clothes or house	.718	.768	.796	.864	1.000	.595
Many people who are important to me do have the latest/most expensive car, cellphone, clothes or house	.404	.419	.540	.555	.595	1.000
The people in my life whose opinions I value do have the latest/most expensive car, cellphone, clothes or house	.305	.337	.481	.462	.523	.835

Inter-Item Correlation Matrix

	The people in my life whose opinions I value do have the latest/most expensive car, cellphone, clothes or house
People important to me have advised me to purchase the latest/most expensive car, cellphone, clothes or house	.305
People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	.337
People important to me approve of me having latest/most expensive car, cellphone, clothes or house	.481
People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	.462
People important to me want me to have the latest/most expensive car, cellphone, clothes or house	.523
Many people who are important to me do have the latest/most expensive car, cellphone, clothes or house	.835
The people in my life whose opinions I value do have the latest/most expensive car, cellphone, clothes or house	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
People important to me have advised me to purchase the latest/most expensive car, cellphone, clothes or house	20.90	94.973	.758	.733	.916

People important to me think that I should have the latest/most expensive car, cellphone, clothes or house	20.78	92.688	.815	.818	.910
People important to me approve of me having latest/most expensive car, cellphone, clothes or house	20.27	93.362	.849	.758	.907
People important to me expect me to have the latest/most expensive car, cellphone, clothes or house	20.42	89.466	.876	.821	.904
People important to me want me to have the latest/most expensive car, cellphone, clothes or house	20.27	91.446	.870	.791	.905
Many people who are important to me do have the latest/most expensive car, cellphone, clothes or house	19.86	102.279	.643	.739	.927

The people in my life whose opinions I value do have the latest/most expensive car, cellphone, clothes or house	19.92	105.952	.557	.708	.934

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
23.74	128.733	11.346	7

Appendix: 5.1: Behavioural Intention

```
RELIABILITY
  /VARIABLES=Q30 Q31 Q32 Q33
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	169	.0
	Excluded[a]	1048388	100.0
	Total	1048557	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.807	.813	4

Item Statistics

	Mean	Std. Deviation	N
I intend to save for the long-term in the next three-months	5.17	1.967	169
I want to save for the long-term	6.22	1.408	169
I plan to save for the long-term in the next three-months	5.34	1.949	169
I have saved in the past three-months	5.25	2.219	169

Inter-Item Correlation Matrix

	I intend to save for the long-term in the next three-months	I want to save for the long-term	I plan to save for the long-term in the next three-months	I have saved in the past three-months
I intend to save for the long-term in the next three-months	1.000	.515	.818	.508
I want to save for the long-term	.515	1.000	.489	.339
I plan to save for the long-term in the next three-months	.818	.489	1.000	.458
I have saved in the past three-months	.508	.339	.458	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I intend to save for the long-term in the next three-months	16.81	19.464	.782	.705	.675
I want to save for the long-term	15.76	27.265	.521	.285	.807
I plan to save for the long-term in the next three-months	16.64	20.184	.738	.678	.699
I have saved in the past three-months	16.73	21.458	.511	.270	.826

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.98	36.898	6.074	4

Appendix 5.2: Measurement Model Results

Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	252
Number of distinct parameters to be estimated:	73
Degrees of freedom (252 - 73):	179

Result (Default model)

Minimum was achieved

Chi-square = 370.276

Degrees of freedom = 179

Probability level = .000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
BI	<---	Attitude	.347	.102	3.388	***	par_17
BI	<---	SocialNorm	-.178	.097	-1.831	.067	par_18
BI	<---	CCSocialNorm	-.059	.070	-.840	.401	par_19
BI	<---	PBC	.616	.110	5.618	***	par_20
Q1	<---	Attitude	1.000				
Q2	<---	Attitude	.976	.041	23.750	***	par_1
Q3	<---	Attitude	1.036	.033	31.684	***	par_2
Q4	<---	Attitude	.980	.045	21.556	***	par_3
Q5	<---	Attitude	.949	.052	18.080	***	par_4
Q8	<---	SocialNorm	1.000				
Q9	<---	SocialNorm	1.043	.068	15.246	***	par_5
Q10	<---	SocialNorm	1.044	.067	15.503	***	par_6

			Estimate	S.E.	C.R.	P	Label
Q11	<---	SocialNorm	1.006	.066	15.180	***	par_7
Q13	<---	SocialNorm	.906	.081	11.212	***	par_8
Q14	<---	CCSocialNorm	1.000				
Q15	<---	CCSocialNorm	1.083	.069	15.785	***	par_9
Q16	<---	CCSocialNorm	1.014	.066	15.351	***	par_10
Q17	<---	CCSocialNorm	1.153	.069	16.682	***	par_11
Q18	<---	CCSocialNorm	1.056	.068	15.447	***	par_12
Q25	<---	PBC	1.000				
Q26	<---	PBC	.942	.081	11.635	***	par_13
Q27	<---	PBC	1.153	.089	12.969	***	par_14
Q28	<---	PBC	1.056	.080	13.200	***	par_15
Q32	<---	BI	1.000				
Q30	<---	BI	1.088	.090	12.143	***	par_16

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
BI	<---	Attitude	.303
BI	<---	SocialNorm	-.159
BI	<---	CCSocialNorm	-.059
BI	<---	PBC	.524
Q1	<---	Attitude	.949
Q2	<---	Attitude	.920
Q3	<---	Attitude	.977
Q4	<---	Attitude	.897
Q5	<---	Attitude	.847
Q8	<---	SocialNorm	.806
Q9	<---	SocialNorm	.932
Q10	<---	SocialNorm	.942
Q11	<---	SocialNorm	.930
Q13	<---	SocialNorm	.756

			Estimate
Q14	<---	CCSocialNorm	.844
Q15	<---	CCSocialNorm	.902
Q16	<---	CCSocialNorm	.887
Q17	<---	CCSocialNorm	.928
Q18	<---	CCSocialNorm	.892
Q25	<---	PBC	.771
Q26	<---	PBC	.827
Q27	<---	PBC	.905
Q28	<---	PBC	.919
Q32	<---	BI	.871
Q30	<---	BI	.939

Intercepts: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Q1	6.135	.119	51.535	***	par_27
Q2	6.175	.120	51.577	***	par_28
Q3	6.111	.120	51.031	***	par_29
Q4	5.930	.123	48.027	***	par_30
Q5	5.778	.127	45.656	***	par_31
Q8	4.871	.144	33.875	***	par_32
Q9	5.234	.130	40.370	***	par_33
Q10	5.314	.128	41.375	***	par_34
Q11	5.233	.125	41.718	***	par_35
Q13	4.725	.139	34.042	***	par_36
Q14	2.813	.153	18.391	***	par_37
Q15	2.934	.155	18.924	***	par_38
Q16	3.433	.147	23.282	***	par_39
Q17	3.292	.160	20.534	***	par_40
Q18	3.437	.153	22.468	***	par_41
Q25	4.605	.143	32.251	***	par_42

	Estimate	S.E.	C.R.	P	Label
Q26	5.205	.125	41.563	***	par_43
Q27	4.524	.140	32.270	***	par_44
Q28	5.035	.126	39.863	***	par_45
Q32	5.351	.148	36.092	***	par_46
Q30	5.181	.150	34.613	***	par_47

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SocialNorm	<-->	CCSocialNorm	-.272	.206	-1.322	.186	par_21
PBC	<-->	CCSocialNorm	-.283	.199	-1.425	.154	par_22
PBC	<-->	SocialNorm	1.029	.211	4.877	***	par_23
PBC	<-->	Attitude	.996	.198	5.038	***	par_24
Attitude	<-->	CCSocialNorm	.369	.200	1.848	.065	par_25
Attitude	<-->	SocialNorm	1.244	.214	5.817	***	par_26

Correlations: (Group number 1 - Default model)

			Estimate
SocialNorm	<-->	CCSocialNorm	-.107
PBC	<-->	CCSocialNorm	-.117
PBC	<-->	SocialNorm	.475
PBC	<-->	Attitude	.472
Attitude	<-->	CCSocialNorm	.149
Attitude	<-->	SocialNorm	.559

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Attitude	2.169	.261	8.312	***	par_48
SocialNorm	2.281	.361	6.313	***	par_49
CCSocialNorm	2.830	.419	6.762	***	par_50
PBC	2.054	.352	5.840	***	par_51

	Estimate	S.E.	C.R.	P	Label
d1	1.668	.262	6.360	***	par_52
e1	.240	.034	7.055	***	par_53
e2	.373	.047	7.958	***	par_54
e3	.110	.025	4.469	***	par_55
e4	.508	.061	8.302	***	par_56
e5	.770	.089	8.664	***	par_57
e8	1.234	.145	8.517	***	par_58
e9	.376	.057	6.611	***	par_59
e10	.314	.052	6.079	***	par_60
e11	.362	.054	6.685	***	par_61
e13	1.405	.161	8.715	***	par_62
e14	1.147	.142	8.094	***	par_63
e15	.764	.106	7.193	***	par_64
e16	.786	.105	7.513	***	par_65
e17	.607	.096	6.348	***	par_66
e18	.813	.110	7.391	***	par_67
e25	1.404	.171	8.229	***	par_68
e26	.842	.108	7.768	***	par_69
e27	.605	.100	6.048	***	par_70
e28	.424	.077	5.491	***	par_71
e32	.899	.212	4.247	***	par_72
e30	.448	.228	1.966	.049	par_73

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
BI	.412
Q30	.882
Q32	.759
Q28	.844
Q27	.819

	Estimate
Q26	.684
Q25	.594
Q18	.795
Q17	.861
Q16	.787
Q15	.813
Q14	.712
Q13	.571
Q11	.865
Q10	.888
Q9	.868
Q8	.649
Q5	.717
Q4	.804
Q3	.955
Q2	.847
Q1	.900

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	11		-1.031	9999.000	3945.454	0	9999.000
1	e*	23		-1.631	5.054	1960.084	20	.278
2	e*	18		-.733	.544	1563.330	6	.883
3	e	9		-.280	.737	1049.564	5	.962
4	e	5		-.257	.608	811.337	5	.707

Iteration	Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
5	e* 1		-.019	.844	582.371	5	.650
6	e 1		-.004	.311	466.542	4	1.005
7	e 0	4853.516		.873	392.162	8	.897
8	e 0	809.305		.857	377.809	2	.000
9	e 0	1179.900		.175	370.598	1	1.111
10	e 0	1208.686		.050	370.278	1	1.048
11	e 0	1286.181		.005	370.276	1	1.005
12	e 0	1261.265		.000	370.276	1	.999

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	73	370.276	179	.000	2.069
Saturated model	252	.000	0		
Independence model	21	4014.543	231	.000	17.379

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.908	.881	.950	.935	.949
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.775	.703	.736
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	191.276	139.994	250.325
Saturated model	.000	.000	.000
Independence model	3783.543	3581.691	3992.685

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	2.178	1.125	.823	1.473
Saturated model	.000	.000	.000	.000
Independence model	23.615	22.256	21.069	23.486

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.079	.068	.091	.000
Independence model	.310	.302	.319	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	516.276	537.979		
Saturated model	504.000	578.919		
Independence model	4056.543	4062.786		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	3.037	2.735	3.384	3.165
Saturated model	2.965	2.965	2.965	3.405
Independence model	23.862	22.675	25.092	23.899

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	97	104
Independence model	12	13

Appendix 5.3: Structural Model Results

Result (Default model)

Minimum was achieved

Chi-square = 389.361

Degrees of freedom = 199

Probability level = .000

Estimates (Group number 1 - Default model)

Scalar Estimates (Group number 1 - Default model)

Maximum Likelihood Estimates

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
BI	<---	Attitude	.349	.102	3.416	***	par_17
BI	<---	SocialNorm	-.181	.097	-1.864	.062	par_18
BI	<---	CCSocialNorm	-.058	.070	-.833	.405	par_19
BI	<---	PBC	.624	.109	5.729	***	par_20
Q1	<---	Attitude	1.000				
Q2	<---	Attitude	.976	.041	23.751	***	par_1
Q3	<---	Attitude	1.036	.033	31.681	***	par_2
Q4	<---	Attitude	.980	.045	21.557	***	par_3
Q5	<---	Attitude	.949	.052	18.079	***	par_4
Q8	<---	SocialNorm	1.000				
Q9	<---	SocialNorm	1.043	.068	15.245	***	par_5
Q10	<---	SocialNorm	1.044	.067	15.503	***	par_6
Q11	<---	SocialNorm	1.006	.066	15.179	***	par_7
Q13	<---	SocialNorm	.906	.081	11.212	***	par_8
Q14	<---	CCSocialNorm	1.000				
Q15	<---	CCSocialNorm	1.083	.069	15.784	***	par_9
Q16	<---	CCSocialNorm	1.014	.066	15.350	***	par_10

			Estimate	S.E.	C.R.	P	Label
Q17	<---	CCSocialNorm	1.153	.069	16.682	***	par_11
Q18	<---	CCSocialNorm	1.056	.068	15.447	***	par_12
Q25	<---	PBC	1.000				
Q26	<---	PBC	.942	.081	11.640	***	par_13
Q27	<---	PBC	1.153	.089	12.979	***	par_14
Q28	<---	PBC	1.055	.080	13.207	***	par_15
Q32	<---	BI	1.000				
Q30	<---	BI	1.083	.084	12.871	***	par_16
Saver	<---	BI	-.071	.016	-4.386	***	par_27

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
BI	<---	Attitude	.304
BI	<---	SocialNorm	-.162
BI	<---	CCSocialNorm	-.058
BI	<---	PBC	.530
Q1	<---	Attitude	.949
Q2	<---	Attitude	.920
Q3	<---	Attitude	.977
Q4	<---	Attitude	.897
Q5	<---	Attitude	.847
Q8	<---	SocialNorm	.806
Q9	<---	SocialNorm	.932
Q10	<---	SocialNorm	.942
Q11	<---	SocialNorm	.930
Q13	<---	SocialNorm	.756
Q14	<---	CCSocialNorm	.844
Q15	<---	CCSocialNorm	.902
Q16	<---	CCSocialNorm	.887
Q17	<---	CCSocialNorm	.928

			Estimate
Q18	<---	CCSocialNorm	.892
Q25	<---	PBC	.771
Q26	<---	PBC	.827
Q27	<---	PBC	.905
Q28	<---	PBC	.918
Q32	<---	BI	.873
Q30	<---	BI	.936
Saver	<---	BI	-.339

Intercepts: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Q1	6.135	.119	51.535	***	par_28
Q2	6.175	.120	51.577	***	par_29
Q3	6.111	.120	51.031	***	par_30
Q4	5.930	.123	48.027	***	par_31
Q5	5.778	.127	45.656	***	par_32
Q8	4.871	.144	33.875	***	par_33
Q9	5.234	.130	40.370	***	par_34
Q10	5.314	.128	41.375	***	par_35
Q11	5.233	.125	41.718	***	par_36
Q13	4.725	.139	34.042	***	par_37
Q14	2.813	.153	18.391	***	par_38
Q15	2.934	.155	18.924	***	par_39
Q16	3.433	.147	23.282	***	par_40
Q17	3.292	.160	20.534	***	par_41
Q18	3.437	.153	22.468	***	par_42
Q25	4.605	.143	32.252	***	par_43
Q26	5.205	.125	41.563	***	par_44
Q27	4.524	.140	32.270	***	par_45
Q28	5.035	.126	39.863	***	par_46

	Estimate	S.E.	C.R.	P	Label
Q32	5.351	.148	36.092	***	par_47
Q30	5.181	.150	34.613	***	par_48
Saver	1.146	.027	42.299	***	par_49

Covariances: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
SocialNorm	<-->	CCSocialNorm	-.272	.206	-1.322	.186	par_21
PBC	<-->	CCSocialNorm	-.283	.199	-1.425	.154	par_22
PBC	<-->	SocialNorm	1.029	.211	4.878	***	par_23
PBC	<-->	Attitude	.997	.198	5.038	***	par_24
Attitude	<-->	CCSocialNorm	.369	.200	1.848	.065	par_25
Attitude	<-->	SocialNorm	1.244	.214	5.817	***	par_26

Correlations: (Group number 1 - Default model)

			Estimate
SocialNorm	<-->	CCSocialNorm	-.107
PBC	<-->	CCSocialNorm	-.117
PBC	<-->	SocialNorm	.475
PBC	<-->	Attitude	.472
Attitude	<-->	CCSocialNorm	.149
Attitude	<-->	SocialNorm	.559

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Attitude	2.169	.261	8.312	***	par_50
SocialNorm	2.281	.361	6.313	***	par_51
CCSocialNorm	2.830	.419	6.762	***	par_52
PBC	2.055	.352	5.843	***	par_53
d1	1.654	.259	6.389	***	par_54
e1	.240	.034	7.055	***	par_55

	Estimate	S.E.	C.R.	P	Label
e2	.373	.047	7.958	***	par_56
e3	.110	.025	4.470	***	par_57
e4	.508	.061	8.302	***	par_58
e5	.770	.089	8.664	***	par_59
e8	1.234	.145	8.517	***	par_60
e9	.376	.057	6.612	***	par_61
e10	.314	.052	6.078	***	par_62
e11	.362	.054	6.685	***	par_63
e13	1.405	.161	8.715	***	par_64
e14	1.147	.142	8.094	***	par_65
e15	.764	.106	7.193	***	par_66
e16	.786	.105	7.513	***	par_67
e17	.607	.096	6.348	***	par_68
e18	.812	.110	7.391	***	par_69
e25	1.402	.170	8.228	***	par_70
e26	.842	.108	7.769	***	par_71
e27	.605	.100	6.050	***	par_72
e28	.425	.077	5.500	***	par_73
e32	.890	.197	4.519	***	par_74
e30	.471	.207	2.273	.023	par_75
d2	.111	.012	9.109	***	par_76

Squared Multiple Correlations: (Group number 1 - Default model)

	Estimate
BI	.419
Saver	.115
Q30	.876
Q32	.762
Q28	.843
Q27	.819

	Estimate
Q26	.684
Q25	.594
Q18	.795
Q17	.861
Q16	.787
Q15	.813
Q14	.712
Q13	.571
Q11	.865
Q10	.888
Q9	.868
Q8	.649
Q5	.717
Q4	.804
Q3	.955
Q2	.847
Q1	.900

Minimization History (Default model)

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	11		-1.030	9999.000	3989.871	0	9999.000
1	e*	23		-1.631	5.075	1983.479	20	.279
2	e*	18		-.735	.546	1586.818	6	.875
3	e	9		-.280	.739	1068.254	5	.962
4	e	5		-.251	.608	825.141	5	.721

Iteration		Negative eigenvalues	Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
5	e *	1		-.020	.851	602.259	5	.628
6	e	1		-.012	.467	481.321	5	.895
7	e	0	10339.628		.444	422.501	5	1.024
8	e	0	1001.400		.982	399.643	3	.000
9	e	0	1151.149		.293	390.142	1	1.029
10	e	0	1232.747		.052	389.370	1	1.060
11	e	0	1258.461		.007	389.361	1	1.010
12	e	0	1274.796		.000	389.361	1	1.000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	76	389.361	199	.000	1.957
Saturated model	275	.000	0		
Independence model	22	4052.485	253	.000	16.018

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.904	.878	.951	.936	.950
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.787	.711	.747
Saturated model	.000	.000	.000

Model	PRATIO	PNFI	PCFI
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	190.361	138.209	250.308
Saturated model	.000	.000	.000
Independence model	3799.485	3596.927	4009.337

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	2.290	1.120	.813	1.472
Saturated model	.000	.000	.000	.000
Independence model	23.838	22.350	21.158	23.584

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.075	.064	.086	.000
Independence model	.297	.289	.305	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	541.361	565.144		
Saturated model	550.000	636.054		
Independence model	4096.485	4103.369		

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	3.184	2.878	3.537	3.324
Saturated model	3.235	3.235	3.235	3.741
Independence model	24.097	22.905	25.331	24.137

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	102	109
Independence model	13	13

Appendix: Consistency Matrix

Hypothesis	Literature Review	Data collection tool	Analysis
H1: A positive attitude towards savings leads to an increased intention to save	(Ajzen, 1991; Funfgeld & Wang, 2009; Furnham, 1997; Mauldin et al., 2016; Ruefenacht et al., 2015)	Questions 1 – 8	Structured equation modelling
H2: A positive social norm towards saving leads to an increased behavioural intention to save	(Ajzen, 1991; Funfgeld & Wang, 2009; Lindbeck, 1997; Lunt & Livingstone, 1991; Shefrin & Thaler, 1988)	Questions 9- 13	Structured equation modelling
H3: Conspicuous consumption, as a social norm, leads to a negative impact on the behavioural intention to save	(Ajzen, 1991; Burger et al., 2015; (Kaus, 2013); Nieftagodien & van der Berg, 2007; Trigg, 2001; Veblen, 1899; Visagie & Posel, 2013; Zizzamia et al., 2016)	Questions 14 – 20	Structured equation modelling
H4: A positive behaviour intention has a positive influence on saving behaviour.	(Ajzen, 1991; Funfgeld & Wang, 2009; Lown, 2011; Wärneryd, 1989)	Questions 21- 29	Structured equation modelling
H5: A positive behavioural intention has a positive influence on saving behaviour.	(Ajzen, 1991)	Questions 30- 33	Structured equation modelling