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Behavioural economic opportunities to increase household saving

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ABSTRACT

Research has found many positive attributes to individual financial saving, from both a macroeconomic and individual perspective. Yet inadequate saving remains a global issue, particularly in emerging markets such as South Africa. Through thirty-one, semi-structured interviews, this qualitative study sought to better understand the financial decision-making and saving behaviour in South Africa. These findings were used to determine whether the success of the United States' behavioural economic-based 'Save More Tomorrow' program would have the same positive effect on the saving rate in South Africa.

By developing the research instrument through behavioural economic theory, the study established that the participants' behaviour corresponded with the irrationalities and biases theorised in behavioural economics. In some cases even to a heightened extent as a result of the participants' low financial literacy and difficult circumstances. This created and compounded constraints and limitations on the participants, making it exceptionally difficult to adequately save. These insights informed a framework that advocated that the 'Save More Tomorrow' programme would positively affect South African individuals' saving behaviour. Moreover, pre-defined withdrawal terms and peer-based saving were identified as two additional design elements which would further minimise irrationalities and bias whilst leveraging existing local saving behaviour.

KEYWORDS

Behavioural economics

Saving rate

Saving behaviour

Financial decision-making

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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ACRONYMNS

GDP – Gross Domestic Product

OECD - Organisation for Economic Co-operation and Development

NASASA - National Stokvel Association of South Africa

SALDRU - South Africa Labour and Development Research Unit

NIDS - National Income Dynamics Study

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INTRODUCTION TO RESEARCH PROBLEM

Problem Statement

With one of the lowest household saving rates in the world, compounded by poverty, unemployment and low financial literacy, South African's desperately require assistance to improve their saving behaviour.

Problem Background

The importance of saving, around the world, has taken a far more prioritised position as a critical area of concern, especially post the 2008 financial crisis. The global phenomenon of inadequate saving rates has raised major international economic concern, culminating in widespread trepidation around the ever-increasing retirement saving gap (World Economic Forum, 2019) as a global trend. This concern not only brings light to issues of long-term financial insecurity for individuals, but further exacerbates a household's ability to manage unexpected or unforeseen expenses related to their present needs, a situation associated with a variety of unfavourable outcomes (Babiarz & Robb, 2014).

The situation in South Africa has been noted as one of the most dire in the world. Although both government and private sector saving had been on a steady decline, there had been a particularly noticeable drop-off in domestic household saving rates over the past few decades (Amusa, 2014). With a net household saving rate of 0.26 as a percentage of household disposable income (Organisation of Economic Co-operation and Development [OECD], 2019a), South Africa has one of the lowest saving rates worldwide. In fact, South Africa's gross saving rate as a percentage of gross domestic product (GDP) has been on a downward trajectory over the past few decades (Zwane, Greyling, Maleka, 2016) and was recorded at the end of 2018 as reaching its lowest annual saving rate since 2012 (Saville & Macloed, 2019).

Given the country's stagnant GDP growth, saving becomes an even more critical area of concern. It has been observed that domestic savings provide the means for investing in infrastructure and domestic fixed capital formulation, which in turn enables local economic growth (Precious & Asrat, 2014). With the current rates of saving within South Africa it is unfeasible for the country to reach the levels of growth required to keep up with the expansion of its population and to aid the dire levels of unemployment (Amusa, 2014). Thus, saving becomes a crucial cog in developing the sustainable growth so desperately required in South Africa.

With poverty rates of at least 40% (Posel & Rogan, 2016) and one of the developing world's worst performing education systems, (Spaull, 2015) South Africa's population faces a heightened cognitive burden that makes it especially difficult for individuals to think deliberately around their financial decision-making (Gabor & Brooks, 2017). This scenario, compounded by stunted GDP growth and an unemployment rate of 29% (World Bank, 2019a) creates an environment that is extremely difficult for South Africans to adequately save. It is vital for both the individual's and the nation's prosperity that the course of this situation is altered and more positive saving behaviour is encouraged, supported and driven.

Purpose of Research

Given the above mentioned unfavourable South African context, saving becomes an ever more important task to be prioritised. This adverse socio-economic climate places greater financial risk on individuals and through improved saving behaviour these individuals will be better placed to protect themselves and their family against long-term financial insecurity and unexpected expenses (Babiarz & Robb, 2014). Improved saving would empower these individuals to be more self-reliant and thus less of a burden on government and the society around them. To positively influence this dilemma, it is vital to better understand the saving behaviour and decision-making process of individuals within the South African context in order to provide relevant solutions and assistance.

There is also a broader macroeconomic benefit to better understanding and improving South African individuals' saving behaviour. Through research across multiple countries over the past several decades, it has been found that saving forms a key pillar of enabling economic growth (Precious & Asrat, 2014). It has been calculated that in order to achieve the local government's desired GDP growth rate of 5.4%, South Africa would require a saving rate of 33.4% of GDP, more than double its current rate of 14.4% (Saville & Macloed, 2019). Given the current financial burden facing the South African government, and the limitations in how much more corporates are able to save in the current economic environment, it is hypothesised that improving household saving is one of the most feasible manner in which to try and reach these targets (Amusa, 2014).

This lack of investment for macroeconomic growth has further negative implications for private sector business. Low growth generally diminishes consumer willingness to spend while reduced spend on infrastructure constrains many industrial activities (Syden, 2014). Meanwhile, improved saving has been correlated with fiscal stability, easier access to credit and employment opportunity (Zwane et al., 2016).

A positive shift in South African saving behaviour on the above-mentioned facets would have a positive multiplier effect on the prosperity of the country as a whole. There has been an increase in international research into behaviour economics in order to better understand this saving behaviour. Through their research, behavioural economists have identified multiple forms of ‘nudges’ that influence decisions in a way that will make the decision-maker better off (Thaler & Sunstein, 2009) such as the ‘Save More Tomorrow’ programme in the United States. By assessing these behavioural economic principles in a South African context, there is an opportunity to better understand individuals’ saving behaviour and decision-making process in order to ascertain how business, financial services, regulators, government and individuals can help improve saving behaviour across South Africa.

Although there has been extensive research on the determinants of South Africa’s household saving, much of this literature has prioritised a view of the macroeconomic environment (Zwane, et al., 2016). Far less is known on the microeconomic aspects of household saving on an individual level, possibly attributed to the minimal data required to complete such an analysis. Similarly, there is a deficit in literature as to the psychological and social influences on individual decision-making for saving and retirement planning (Gough & Niza, 2011). The focus of this research on individual behaviour will aid in bolstering these gaps in the academic literature.

This research provides an opportunity to further inform the understanding of whether South Africans respond in the same manner within behavioural economic principles and if they are inflicted by the same types of heuristics and biases as assessed in developed nations. Moreover, the ‘Save More Tomorrow’ programme has only been attempted in the context of a developed country whereas South Africa provides the opportunity to assess how its effects may arise differently or identify similarities within the context of a developing country.

Research Scope

After a comprehensive exploratory study was completed to better understand behaviour economic theory and saving behaviour, particularly in a South African context, this research paper utilised the framework developed by renowned behaviour economists Richard Thaler and Shlomo Benartzi in their ‘Save More Tomorrow’ programme. Using six behavioural economic principles, this programme has been successfully tested across multiple industries in the United States of America and has shown favourable results in its ability to increase individual saving behaviour (Thaler & Benartzi, 2004).

The behavioural economic principles and insights into individuals’ irrationalities and biases from the ‘Save More Tomorrow’ programme, coupled with research across multiple peer-reviewed behaviour economic and saving behaviour journals, were utilised to build a qualitative research instrument, in the form of a semi-structured interview. The findings from these interviews were coded and thematically collated into key understandings and insights into whether the same behavioural economic principles may have a similar positive effect on individuals within the South African context and whether they are inflicted by the same forms of heuristics and biases.

Out of these findings a framework was developed to outline the insights on the similarities and differences on saving behaviour as well as understand the limitation and constraints within the South African context. This framework was bolstered through suggestions based off those findings as to how business, financial services, regulators, government and individuals may better inform their strategies around improving saving behaviour within the South African context.

LITERATURE REVIEW

Introduction

Traditional forms of economic theory were based on the belief that human beings are rational beings attempting to maximise their own wellbeing. However, as more researchers looked to better understand human behaviour and the process of decision-making, substantial empirical evidence revealed that human beings often act objectively irrational (Yamagishi, Takagishi, Matsumoto, & Kiyonari, 2014). This line of thought led to a new field of academic studies called behaviour economics which strove to better understand the biases and irrationalities that human beings display. Through this deeper understanding of how human beings actually behave, behavioural economists were able to develop several principles to help better predict the actual behaviour of humans (Van Zyl & Van Zyl, 2016). As a result of this, they were able to further devise ways in which to help individuals make more optimal decisions.

A common field of irrational behaviour or decision-making is individuals' saving habits. Most people appreciate the importance of saving, and have the right intention to save, however, the statistics across the world show that very few people actually save, or are saving far too little (Rhee & Boivie, 2015). This is particularly noticeable in developing countries, such as South Africa, where household saving hardly even features (Amusa, 2014). This is of great concern as these are the individuals who are most susceptible to economic shocks and live with the most uncertainty. Moreover, these are often the countries that most need the upliftment that comes with national GDP growth which is only achievable through the investment in growth producing assets that saving provides for (Precious & Asrat, 2014).

However, the potential of behavioural economics to provide solutions to this saving crisis has been documented through saving programmes such as Thaler and Benartzi's 'Save More Tomorrow' programme. By basing the fundamentals of the programme in behavioural economic theory, the 'Save More Tomorrow' programme was able to increase saving rates by four times and has been estimated to have increased saving by $7.4billion in the United States (Fox & Sitkin, 2015). This provides hope that this same sort of approach may be able to have a similar positive effect on the abysmal saving habits within the South African context.

Global Saving Crisis

The issue of inadequate saving rates is a global phenomenon. Given the far-reaching social and economic impact, international bodies such as the World Economic Forum (2019) have placed it far higher on their agenda and have stressed the desperate need for urgent reforms. Not only is the saving rate not at an adequate level, it has in fact been declining over the past decade. According to the World Bank (2019b) the global average gross savings rate as a percentage of GDP has dropped to 25.2% in 2017 from an unsatisfactory high of 26.7% in 2006. One of the more troubling factors to this statistic is the exceptionally low household saving rate around the world. This average rate of saving as a percentage of net household disposable income across the OECD countries has in fact reduced from an insufficient 7.5% to 4.8% in the past decade (OECD, 2019a). These statistics are a far cry from the 15% financial service providers often recommend as a minimum to ensure basic precautionary and retirement security (Rhee & Boivie, 2015).

Even in developed countries, such as the United States of America, it has been estimated that over 50% of workers have inadequate savings to maintain their lifestyle through retirement (Munnell, Webb & Hou, 2014). In fact, nearly 40 million working-age households in the United States alone do not own any form of retirement account or asset and the average working household effectively has no retirement saving (Rhee & Boivie, 2015). The European Union are not performing much better with a below-average household saving rate of only 3.7% (OECD, 2019a). This after being particularly hard-hit by the 2008 financial crises which reduced the value of many individuals' savings and hampered their ability for further saving (Le Blanc, Porpiglia, Teppa, Zhu, & Ziegelmeyer, 2016).

The situation, however, is noticeably worse in developing countries where the average person is poorer, less educated and suffers from greater gaps in financial literacy (Klapper, Lusardi & Van Oudheusden, 2015). This is counterintuitive to the common rationale that the greater instability, volatility and risk of developing countries should encourage greater precautionary savings to offset the uncertainty. Conversely, it has been found that these factors, seen particularly in developing countries, in fact negatively correlate with household saving (Aizenman, Cavallo, & Noy, 2015). Upon other factors, this is generally considered a result of under-developed financial systems, weaker institutions and increased informality in the labour markets (Aizenman, et al., 2015).

There are further global trends that are exacerbating this situation. Global economic growth was recorded at 3% for 2019, its lowest level since the 2008 financial crisis, with an anticipated slowdown in China and the United States reflecting a prominent downside risk (International Monetary Fund, 2019). Over and above increasing inflation and population size, this lack of growth constrains the potential of increased saving by creating greater pressure on government, corporates and the general public. Moreover, global income inequality is at its highest in over a century across the OECD countries where the income of the wealthiest 10% of the population is approximately nine times greater than that of the poorest 10% (OECD, 2019b). Besides distorting the median saving rate, inequality has been recorded to drive significant negative implications on growth and macroeconomic stability (Dabla-Norris, Kochhar, Suphaphiphat, Ricka, & Tsounta, 2015) and thus on the ability to save.

Definition of Saving

Saving can come in many shapes and forms and it is important to understand the difference to appreciate where the focus of this study lies. There are three components of domestic saving, namely corporate saving, government saving and household saving (Precious & Asrat, 2014). Each of these three play an important role in accumulatively contributing to the domestic saving of a country and is indicative of the overall investment pool available for each country, which can be used for growth producing investments (Amusa, 2014). The focus of this study is on household saving which, although often the smallest contributor of the three elements, has been considered to have the greatest growth potential (Saville & Macloed, 2019).

Household saving is generally considered the act of receiving more income than money spent and thus amassing accumulated funds for future consumption; simply put as income minus consumption (Lee & Hanna, 2015). A broader sense would consider savings as measured by the change over a time period of the net worth of an individual’s assets (Cronqvist & Siegel, 2015). For the sake of this research, the first financially focused definition will be prioritised, although there will be some interest in the asset growth of individuals as a form of saving.

An individual’s saving behaviour goes beyond the financial components of saving as it also includes the psychological dimensions of intentions and habits (Ranyard, 2017).

Individuals' saving behaviour is as a result of complex psychological needs and is often motivated by multiple reasons simultaneously (Lee & Hanna, 2015). It is this fact that makes understanding individuals' saving behaviour so complex and interesting.

Household saving is also broken down further into two categories of personal saving. Contractual saving is when an individual forms an agreement with an external party to save, such as life insurance policies or pension funds. Whereas, discretionary saving is when the individual is not bound by fixed commitments, such as bank accounts or private share portfolios (Syden, 2014). This research will consider both these categories of saving as they both contribute towards the overall household saving and, more importantly, the relationship between the two allows for a deeper understanding of the saving approach of individuals.

Importance of Saving - Households

Saving has been of much academic interest as a result of the multiple positive micro and macroeconomic benefits. It has the ability to improve the livelihood of individuals and households as well as uplift the economic wellbeing and growth potential of entire countries.

From the perspective of individuals and households, saving has been shown to positively bolster the ability to meet financial burdens. This is in the form of both expected financial obligations, such as paying rent or paying off a credit card, and, more importantly, unexpected financial needs, such as emergencies or sudden damages (Babiarz & Robb, 2014). Moreover, the resultant increase of asset accumulation and wealth building derived from savings has been shown to reduce poverty in the long run and bolster long-term resilience (Karlan, Ratan & Zinman, 2014). This need for saving is of vital importance in our global society where the average working household has virtually no retirement savings (Rhee & Boivie, 2015), opening individuals up to a severely reduced quality of life and becoming a burden on others and government in their retirement years.

The positive attributes of saving are of particular importance to low income groups, considering their increased sensitivity to unexpected financial costs (Martin & Hill, 2015). The security provided by saving increases the potential upward mobility of individuals from poor backgrounds and thus increases their ability to improve their livelihood (Karlan et al., 2014). There has also been a positive correlation observed between saving and improved subjective well-being (Babiarz & Robb, 2014) as the increased saving increases the feeling of psychological safety and thus reduces financial stress and anxiety.

Importance of Saving – Economic Growth

There has been a consensus in literature that domestic saving, bolstered through household saving, is an essential component of attaining sustained levels of economic growth (Kudaisi, 2013; Amusa, 2014; Obayelu, 2012). This improved economic growth is as a result of saving providing the funding for a higher rate of investment in fixed capital which provides for the productivity gains and improved efficiency that aid economic growth (Precious & Asrat, 2014). This is most true when the savings are channelled towards appropriate, profitable and productivity increasing investment opportunities. This in turn gives rise to employment opportunities, industrial growth and greater stability in prices (Zwane et al., 2016). This positive momentum has the potential to drive greater savings, further increasing economic growth and developing a cycle of upliftment and national well-being.

There are three entities that produce savings: households, firms and government. In the tough macroeconomic environment facing firms and the pressures on government to constantly provide more and more, the saving is unlikely to come from either of these groups. Rather, it seems that the most promising focus area would be household saving to drive an increase in overall saving (Saville & Macloed, 2019).

Moreover, savings are able to cushion an economy against fluctuations in international capital. Savings are crucial in financing high levels of capital formulation during times of poor or fluctuating capital which in turn drives increased productivity and thus economic growth (Precious & Asrat, 2014). Similarly, it has been shown that increased domestic savings help to reduce trade and current account deficits (Precious & Asrat, 2014).

In recent times, China has been a shining example of the power of increased savings on their macroeconomic outlook. The country went from a household saving rate of 3.9% leading up to 1977 to one of the world's highest rates of over 27% in 2008 (Curtis, Lugauer & Mark, 2015). Although the saving rate is only one factor of many, it is noticeable that the country maintained an average GDP growth of 10% year-on-year during this period, building it into the second largest economy in the world (World Bank, 2019c). The country was also empowered to purchase substantial amounts of assets and reduce their current account deficit through the huge capital flows that were made possible through their substantial savings (Curtis et al., 2015). It is not just China that has seen the benefit, the nine highest growth countries in the past decade have enjoyed saving rates of over 25% (Syden, 2014).

Similarly, there is the potential for positive business impact. Financial services form a key cornerstone to any economy, provide a significant contribution towards the national GDP and are large employers (World Bank, 2018). As a result of low saving rates, this important sector misses out on potential gains and customers who are not taking up their saving products (Meehan et al., 2018). Moreover, without this saving there are constraints in their ability to provide loans and investments that would benefit individuals and corporates alike.

South African Context

Even after twenty-five years of democratic freedom in South Africa, the majority of the population still faces a long journey to realise the anticipated freedom envisioned for the country (Badat & Sayed, 2014). Many are still incarcerated by the residual effects of the oppressive apartheid regime and live in conditions just as appalling as those seen pre the first democratic elections in 1994. Despite the significant resources, capital and political efforts, many key metrics further paint a dire image of the country. The poverty rate has been increasing over the past two decades, unemployment is at 29%, youth unemployment is at 54.7%, while GDP growth has been stunted for an extended period of time (World Bank, 2019a).

Moreover, with the highest Gini-coefficient of 149 countries measured, there is no other country that has managed to sustain such elevated levels of inequality for such an extended duration (Graven, 2014). This widening inequality has been recorded to have significant negative implications for growth and macroeconomic stability, particularly through increased social frustration and the number of strikes and protests (Dabla-Norris et al., 2015). In addition, it can lead to a concentration of political and decision-making control within the most well-off, develop suboptimal use of human resources, result in economic and political instability and thus increase the risk of crisis and reduce investor interest (Dabla-Norris et al., 2015).

Indeed, more than two decades after South Africa ousted a racist apartheid system, the vast majority of previously disadvantaged South Africans remain trapped in poverty (Hurlbut, 2018). Over half the population still lives below the national poverty line while a small elite maintain most of the country's wealth (Hurlbut, 2018). The liquidity constraints and low asset wealth of the poor majority have been shown to impose a cognitive burden on individuals, making it more difficult for them to think deliberately (Gabor & Brooks, 2017) and can lead to increased irrationality to their economic decision-making.

Unfortunately for the long-term prospect of the country, some of the most despairing statistics are found within the education sector. Across a multitude of international and national reports, learner's academic ability is highlighted as one of the worst of all middle-income countries and lower than many far poorer countries (Roodt, 2018). These educational statistics are of most concern for historically disadvantaged learners where access to quality education is highly unlikely (Spaull, 2015). This low level of education adversely effects financial literacy levels, resulting in less than half of the population being considered financially literate (Nanziri & Leibbrandt, 2018). Similarly, the low skill and education levels constrains the ability of the labour force to secure meaningful employment and uplift their living situation.

Although South Africa has one of the best financial services systems and the most developed economy in Africa, there has been a noticeable misalignment between strategy and macroeconomic policy (Amusa, 2014). Much of the country's macroeconomic policy has often been reactionary and driven by populist political agenda (von Holdt, 2013) which results in many of these policies conflicting with the developmental needs of the country. Such an example has been the increasing reliance on social grants, where beneficiaries have increased by 300% in the past nine years, creating a culture of complacency and a reliance on hand-outs (Syden, 2014).

The outlook for South Africa does not provide for much optimism. Mass protests, local unrest and the government's inability to live up to expectations or provide adequate service delivery compounds the dire situation (Mkhize, 2015). Health and wellbeing remain plagued by inadequate healthcare systems (Mayosi & Benatar, 2014), while crime rates increase and faith in the justice system diminishes (Statistics South Africa, 2018). In order to envisage a prosperous future, the country needs to use every available means and opportunity.

South African Saving

The context in which South Africa finds itself makes the role of positive saving even more important. However, this very context of the country makes it particularly complex to understand the determinants of saving. The legacy of colonial disenfranchisement left much of the population excluded from the mainstream economy and thus limited their access to conventional savings and saving instruments (Zwane et al., 2016). Moreover, the exclusionary and oppressive nature of apartheid stripped most of the population from productive assets. The long-term effect has been a maintained reduction in economic freedom for the majority of the population which will be felt for generations (Syden, 2014).

Considering the above complex environment which South Africans need to navigate, positive saving behaviour becomes increasingly important in order to protect the individuals and drive economic stability and growth. Unfortunately, South Africa has one of the lowest household saving rates in the world. Net household saving rates are near to non-existent at 0.26% of household disposable income (OECD, 2019a). As a result, household saving contributing a meagre 1.2% to the country's GDP while gross saving to GDP is at an inadequate 14.4% (South African Reserve Bank, 2017). Unfortunately, these rates have been on a decline over the past two decades.

With GDP growth targets of 5.4% set by the National Development Plan, it is estimated that in order to provide enough savings to fund the requisite investment and growth, the gross saving to GDP needs to be closer to 33.4% (Saville & Macloed, 2019). This means that the currently diminishing saving rate needs to be increased by a substantial 19%; a task that seems impossible, but must be set as a target in order to try move the economy forward.

There is a pocket of hope shown by the stokvel community, a type of community-based saving group which forms an important self-help initiative, providing some form of subsistence to a large portion of the population (Van Wyk, 2017). The general structure is of a group of peers, friends or relatives who agree to contribute a fixed amount into a central kitty which is drawn from on an annual basis (Syden, 2014). It is estimated by the National Stokvel Association of South Africa (NASASA) that there are over 800 000 operating stokvels with 11.5 million participants saving close to R49 billion per annum (NASASA, 2018). Although this approach provides a form of financial inclusion, the bulk of the stokvels are managed informally (Syden, 2014), meaning that many do not provide an interest-based increase and are not saved into the formal system that is able to deliver the much needed investment and growth.

There are several societal factors that further impede the saving rate of South African households. Given the historical oppression, those that have been able to financially liberate themselves have negatively aided the significant rise of the consumption-to-income ratio, while easy access to credit and a reliance on debt have further reduced household savings (Precious & Asrat, 2014). Moreover, the extensive social security payments system negatively influences the precautionary saving motive while a growing aspirational culture encourages individuals to consume beyond their means (Precious & Asrat, 2014).

Behavioural Economics and Its Opportunity

The traditional form of economics has, for centuries, been the study of rational human choice. It is based off the idea that humans are 'rational maximisers' and self-interested beings able to make the most optimal choices to further their life - often referred to as *Homo Economicus* (Yamagishi et al., 2014). In this regard, rational choice is defined as the capability to rank alternatives according to preferences and to select the highest-ranking item amongst all of those alternatives (Ok, Ortoleva & Riella, 2015). However, in more recent times, it has been proposed that humans are more complex in nature than outlined in the above neo-classical sense of economics. In fact, through a plethora of studies, behavioural economists have been able to illustrate that humans are often irrational in their decision-making and are inhibited by several biases and heuristics (Van Zyl & Van Zyl, 2016). It has thus been argued that this standard economic model only provides for a limited view of the determinants of decision-making and behaviour and that further social determinants of behaviour need to be included in order to fully understand decision-making and behaviour (Hoff & Stiglitz, 2016).

Out of this viewpoint, the field of behavioural economics was formed and has been increasing in popularity over the past few decades. Given the complexity of the subject and the cross-over nature between traditional economics and psychology, it is a difficult concept to define. Laibson and List (2015, p385), based off their consolidated research, offer the following definition: "behavioural economics uses variants of traditional economic assumptions (often with a psychological motivation) to explain and predict behaviour".

Building onto that, Thaler (2017) suggests that the field applies itself to better understand the complexities and foibles of humans in order to attribute the right amount of rationality to their behaviours and decision-making. These definitions reason that behavioural economics provides a more realistic psychological foundation which bolsters the explanatory power of economics (Camerer, Loewenstein, & Rabin, 2011).

Through better understanding the irrational nature of human behaviour and decision-making, behavioural economists have started to identify opportunities to shift behaviour to a more desired or optimal state. Thaler and Sunstein (2009) refer to these acts as 'nudges', where decisions are influenced in a way that will make the decision-maker better off according to their own judgement. The deeper understanding of human behaviour, which behavioural economic research has revealed, has illustrated how human psychological quirks can be manipulated in order to encourage more advantageous outcomes for the individual (Wilkinson, 2013). Although met with some scepticism from an ethical point of view, there have already been several positive illustrations of how these 'nudges' can provide a more positive outcome for individuals and society.

The behavioural economic approach has been of particular interest in the realm of investment finance and financial decision-making. Through its focus on understanding how individuals actually make financial decisions, it has been able to provide explanatory models for the observed deviations from traditional economic theories (Van Zyl & Van Zyl, 2016). The learnings from these studies provide insights on how to close the gap between the desired and actual state of individuals and provide several forms of nudges that help those individuals to make more optimal financial decisions.

Key Behavioural Economic Theories for Saving

In Thaler and Benartzi's (2007) academic research, which they utilised to build the platform for the 'Save More Tomorrow' programme, were six behavioural economic theories they considered most applicable to the saving decision-making dynamic and process. It is through these theories that this research paper will further explore the South African saving behaviour context. Below is an outline of these key theories:

Bounded Rationality

One of the fundamental progressions from traditional economics to behavioural economics is the recognition that human beings are not able to be fully rational. Instead, they are limited in their cognitive ability and it is this shortcoming that behavioural economists refer to as bounded rationality (Harstad & Selten, 2013). Bounded rationality reasons that human beings do not have the capability to be fully rational as they lack the cognitive ability, are limited by time, and are unable to know or understand every possible option and the respective outcome of each option (Ross, 2014).

The role of this behavioural economic principle is to better illustrate the kind of behaviour that is compatible with the available or accessible information as well as the computational capacity of the individual involved in the environment in which they exist (Lee, 2011). This approach allows for greater accuracy as to the true decision-making process of individuals and helps to explain the gap between the optimal decision and the actual decisions that human beings make.

Thus, the bounded rationality of every individual inhibits their ability to make the most optimal financial decisions, including the way in which they save. In general, individuals are overwhelmed by the complexity of finances and financial planning as well as the abundance of offerings, products and financial service providers (Garcia, 2013). This is especially true in countries such as South Africa, where the level of financial literacy is low and the cognitive stress and uncertainty as a result of poverty is high.

Self-Control

As much as individuals believe that they are in control of their personal decisions, they are in fact caught up with an internal battle between the trade-offs required by the decisions they make and the struggle to effectively execute against those decisions. The behavioural economic theory of self-control proposes that there are two ‘selves’ in constant conflict: the short-term self who is absorbed by immediate satisfaction and reward; and the long-term self who pursues the maximisation of reward over an extended period (Kool, McGuire, Wang, & Botvinick, 2013). It is the ability to resist immediate consumption or pleasure in favour for long-term gains.

These two selves have also been described as the ‘myopic doer’ verse the ‘farsighted planner’. Where the ‘myopic doer’ is concerned with the immediate satisfaction and reward in the present moment, the 'farsighted planner' rather considers the long-term implications of decisions in order to optimise long-term wellbeing (Thaler, 2017). However, it is the lack of willpower or self-control that tends to overrule the planner in preference for the immediate satisfaction of the doer. This reduces the rational capability of the individual to consider the long-term effect of their present-day decisions.

The conflicting nature of self-control has been shown to be curbed through several strategies or approaches. Hsiaw (2013) has shown the ability of goal-setting to be a powerful motivator when conducted in the correct manner and where appropriate incentives and forms of accountability are included. Similarly, in some of their founding work on self-control, Thaler & Shefrin (1981) were able to explore how individuals are able to improve their long-term decision making through the creation of incentives that modify the 'doers' preferences and develop rules that minimise their discretion.

The tendency to succumb to present reward over long-term certainly has an adverse effect on saving behaviour and is a key reason why individuals predominantly report that they would prefer to save more than they do save (Thaler & Benartzi, 2004). It also provides a key explanation for the gap between an individual's desired retirement saving and their actual retirement saving. This is particularly true in South Africa where the high levels of poverty reduce the cognitive control of individuals. Low levels of self-control reduce the ability to consider long-term implications and appropriately prepare for the future, ultimately limiting the ability to elevate one's economic position (Bernheim, Ray & Yeltekin, 2015).

Status Quo Bias / Inertia

It is common knowledge that all individuals have a degree of complacency, but behaviour economists have uncovered a deeper understanding of the human inclination to remain with the status quo. Through several empirical studies it has been shown that individuals are inflicted by a dominating tendency to maintain the status quo as they fear that the disadvantages of changing it looms larger than the advantages (Etzioni, 2011). The current state is considered the benchmark for all other options, however one needs to feel completely convinced by the potential upside in order to make the change. This is a difficult task considering the complicated nature of many of the decisions one is required to make and the myriad of potential outcomes (Van Zyl & Van Zyl, 2016).

It has been observed that the feeling of regret plays an important role in reducing the cognitive rationality of the decision-maker. This fear of regret causes the individual to review the potentially inferior outcomes with a heightened set of criteria than they do for the potential upsides of the alternative option (Riella & Teper, 2014). They only consider going with the alternative if it is, subjectively, more optimal across all key outcomes than the status quo in order to avoid any possible feeling of regret (Riella & Teper, 2014).

The status quo bias becomes more pronounced when there are a greater number of options available. This form of decision avoidance is brought on by the individual's feeling of being overwhelmed by the options and as a result the status quo is maintained (Van Zyl & Van Zyl, 2016). In this situation, individuals are far more likely to select the default option or what they believe most other people have selected so as to not stray from what they believe is the status quo amongst others (Dean, Kıbrıs, & Masatlioglu, 2017).

Status quo bias is a fundamental factor as to why individuals do not reconsider their saving decisions or search for more optimal options once they have already selected how they are going to approach their saving (Thaler & Benartzi, 2004). This is of particular concern for countries such as South Africa where the status quo is not to save, or save minimally for short-term consumption, as it becomes extremely difficult to convince individuals to change from that status quo.

Loss Aversion & Endowment Effect

Considered to have stemmed from an innate sense to avert bodily harm, it has been found that human beings consider negative outcomes as more potent as to their objective magnitude than positive outcomes (Poleman, 2012). This creates the tendency for individuals to overemphasise the potential loss of an item over a potential gain even if they are technically of an equal value. In fact, it has been estimated that losses hurt twice as much as gains provide pleasure (Laibson & List, 2015). Such an observation was made in an experiment in the United States where only 6% of individuals would be willing to bet with a 50/50 chance of losing $10 or gaining $100 (Van Zyl & Van Zyl, 2016).

The effect of loss aversion has been observed to become heightened when individuals attach additional value to items simply because they own them (Marzilli Ericson, & Fuster, 2014). This is known as the endowment effect and results in individuals overemphasising the value of an item that they own over something that they do not own. It has been suggested that the feeling of ownership engenders a more positive evaluation of a good through a sense of emotional attachment and enhanced memory of the positive attributes and manner in which it has improved their wellbeing (Morewedge, & Giblin, 2015).

Both these theories affect saving behaviour as individuals are reluctant to lose any money, even if there are potential future gains, and they attach additional value to money when they have direct ownership of it (Thaler & Benartzi, 2004). Moreover, these biases have resulted in market inefficiencies and irregularities in valuation as a result of the differences between buyers and sellers (Morewedge, & Giblin, 2015).

Heuristics

Decision-making is an extraordinarily complex process. Considering the boundless amounts of information, choices and potential outcomes, human beings have had to develop heuristics, a type of rule of thumb, simplification or shortcut, in order to reduce the cognitive effort into something more manageable (Hilbert, 2012). This process makes it easier for individuals to deal with the abundance, or shortage, of information, their cognitive boundaries and the lack of time available to make the decision, so that some form of decision can be reached that is close enough to the optimal outcome (Van Zyl & Van Zyl, 2016).

Although often effective, this process allows for a variety of biases, simplifications and missed considerations to arise which ultimately affect the quality of the decision-making (Hilbert, 2012) and may lead to sub-optimal choices. Similarly, given the complexity of the problem, individuals may succumb to weakening the requirements for a solution by requiring that solution to only be an approximation of the optimum outcome or replacing the optimum outcomes by a satisficing, or close-enough, criteria (Lee, 2012). Unfortunately, individuals tend to be overconfident with their cognitive ability which creates an illusion of ability that does not exist and leads to the false assumption that their decision-making is optimal when, in reality, it objectively is not (Van Zyl & Van Zyl, 2016).

Given the complexity of finances, in particular long-term financial planning, individuals often use these forms of heuristics. Aspects such as deciding on the percentage of income to contribute to saving or on how to diversify savings makes use of over-simplified decision-making processes (Thaler & Benartzi, 2007). This often impedes the optimal manner of an individual's saving behaviour and reduces their saving efforts to what is simplest to comprehend.

Peer Effect

When facing an important decision, individuals generally seek out guidance and advice. However, the source of that advice tends to be from friends and family who are perceived as more qualified than they actually are (Thaler & Benartzi, 2007). Moreover, forms of peer pressure cause individuals to follow the decisions of the majority, even in situations where the group is a set of strangers and their decision is not in line with what the individual deems to be correct (Van Zyl & Van Zyl, 2016). The result of this is that pockets of peers tend to make similar decisions to each other. This can be advantageous or disadvantageous dependant on whether the majority's actions are valid or based on a misconception.

There are several theories as to why there is such a strong correlation between an individual's decisions and that of their peer group. It has been argued to derive from an individual caring about the outcomes of their peers as they do not want to be envious if the peers' decision ends up being more optimal than their own (Lahno, & Serra-Garcia, 2015). This is also considered a form of social learning where individuals infer that the decisions of the majority are of a higher quality and use those decisions as an anchor for correctness (Bursztyn, Ederer, Ferman, & Yuchtman, 2014). Similarly, individuals care about the choices of others as they would like to conform (Lahno, & Serra-Garcia, 2015). The joint decision provides a point of familiarity and connection, improving the individual's social utility. What compounds the issues of the peer effect is that peers will generally self-select into social groups according to shared preferences and characteristics and often share common environments, constraints or opportunities (Bursztyn, Ederer, Ferman, & Yuchtman, 2014).

This peer effect has been evident across a myriad of domains including education, health, work, bodyweight and consumption (Angrist, 2014) However, specific attention has been placed on financial decision making because of the ability of the 'herd mentality' to induce market instability, asset price bubbles and populist investment decisions (Bursztyn et al., 2014). Moreover, where there is an objectively negative trend, such as low saving rates, individuals will tend to follow in that trend.

Save More Tomorrow

Through their deep understanding of these six behavioural economic principles, Thaler and Benartzi designed the vastly successful United States-based 'Save More Tomorrow' programme. The design elements of the programme helped 'nudge' participants to overcome those irrationalities and save at a more desirable rate and manner.

The results of the programme illustrated the strength of the concept within only a few years. The first company the programme was applied to saw participants almost quadrupling their saving rates in four years from 3.5% to 13.6% (Benartzi & Thaler, 2013). Having tested the programme on different sizes and types of companies to similar degrees of success, including electronics giant Philips, several of the key principles have been incorporated into the nationwide 401(k) retirement saving programme (Fox & Sitkin, 2015). Based off this widespread success, Benartzi and Thaler (2013) have estimated that the accumulated increase in saving as a result of the programme has boosted annual savings by $7.4 billion in their population of 1.8 million contributing participants.

In their self-review of the success of the 'Save More Tomorrow' programme, Thaler and Benartzi (2004) explained that there were three key components to the programmes design. These were developed through their deep understanding of the six behavioural economic principles explained above. Given the complexities of accurately defining an individual's ideal saving life cycle and the bounded rationality that they face, the programme commenced with accessible financial education and planning. This typically came in the form of a financial education seminar and/or a one-on-one meeting with a qualified financial planner. Providing this foundation helped to force participants to think more seriously about their financial planning while providing some objective insights on how they should be considering their saving in order to minimise the negative effect of subjective heuristic and biases (West, 2012).

Having aided the individual's financial knowledge, they designed the programme so that enrolment was automatic with the option to opt-out. This contrasted with most programmes where the default was to opt-in. Automatic enrolment helps to break the status quo of not saving and then uses that same status quo bias to retain the individual in the programme once they are enrolled (Thaler & Benartzi, 2007). To make the automatic enrolment less daunting, great care went into making the programme exceptionally easy to understand and engage with as well as assuring the individual that they were able to easily opt-out at any time in the future. Moreover, having the default option being automatic enrolment provided the sense that most of the individual's peers would also be enrolling, which bolstered the individuals comfort levels (Beshears, Choi, Laibson, Madrian & Milkman, 2015).

As part of the enrolment process the programme would encourage the individuals to pre-commit to automatically increasing their saving rate annually until they reached a pre-defined cap. This approach played into the heuristic that it is easier to save at a later stage and reduced the negative effects of status quo bias and poor self-control (Thaler & Benartzi, 2007). However, the design of the programme also recognised that when you get an individual to commit to increasing their saving, they will also be reducing their disposable income. This conundrum is negatively affected by the individual's loss aversion and thus reduces willingness to agree to allow automatic increases. To mitigate against this, the design of the programme would time the automatic increase to occur directly after the individual received their annual increase. Therefore, the individual felt that they were not having to decrease their disposable income, while still increasing their saving rate.

Given the large-scale success of the 'Save More Tomorrow' programme across multiple industries and company types, the behavioural economic theory from which the programme was built on will provide for the backbone of this research paper. It is one of the few programmes that was built specifically around behavioural economic academic research, is widely reported on, and has tangible positive results, all of which provides for a sound foundation for this research paper to build off.

Conclusion

Decision-making for saving is a complex process for any individual. Being able to manage one's own self-control and the balance between current consumption and future benefit is exceptionally difficult to compute (Thaler & Benartzi, 2004). In the complex South African context these decisions can often be even more challenging. Nearly a third of the South African population lives below the poverty line (OECD, 2019). Coupled with the dysfunctional state of the education system (Spaull, 2015) this instils a cognitive burden on a large part of the population, diminishes general financial literacy and opens the general population up to negative shocks. Moreover, with South Africa's dire need for growth to help uplift society, the lever of saving driven growth becomes an ever more critical conversation (Amusa, 2014).

Research in the field of behavioural economics has provided empirical insights into the decision-making process of individuals (Garcia, 2013) allowing a clearer understanding of why individuals may make potentially unfavourable choices. Through this understanding behavioural economists are empowered to address issues such as low saving rates and provide for considered and helpful solutions to remedy the situation (Cronqvist and Siegel, 2015).

Through the already established research and principles outlined by Thaler, Benartzi and their behavioural economist peers, this paper looks to establish if the design elements of the ‘Save More Tomorrow’ programme would provide for similar or different value in the South African context. The paper seeks to illustrate that many of the fundamental theories embedded into the programme can have similar positive effects on saving behaviour in South Africa in order to suggest how those principles can be incorporated into local saving efforts.

RESEARCH QUESTIONS

Question 1

> Do South Africans display the same decision-making irrationalities as illustrated in Western behavioural economic research?

Economic theory has traditionally been constructed around the assumption that all individuals are rational beings striving to maximise their wellbeing based on all relevant information (Van Zyl & Van Zyl, 2016). This type of thinking has resulted in an image of human beings as all knowing, fully cognitive individual who have the ability to make the best possible decision across all ranges of choices. However, research completed in behavioural economics has fundamentally challenged this preconception of neoclassic economics. It has illustrated how it provides for only a limited view of the determinants of decision-making and behaviour by illuminating the constraints, biases and irrationalities of human beings (Camerer et al., 2011). This has provided the basis for the field of behaviour economics which strives to bolster economic theory by drawing on psychological insights on how people actually think and behave (Nagatsu, 2015).

Given the boundless information available, the complexity of problem solving as well as the number of externalities and possible outcomes, it becomes unfeasible for any one individual to be expected to make the most optimal decisions (Lee, 2011). As a result of this dilemma, individuals are forced to rely on simplifications, shortcuts and heuristics which allow for misinterpretations, biases and oversimplifications of the decisions at hand (Hilbert, 2012), ultimately effecting the quality of the decision-making.

Considering its potential in improving on neo-classical economic theory, behaviour economics has garnered much attention in international academia. A simple search through academic journal archives will illustrate the substantial quantity of research and experimentation within the field over the past two to three decades. As a result, this far deeper understanding behind the psychology of behaviour and decision-making has uncovered several theories and principles on the irrationalities of individuals (Van Zyl & Van Zyl, 2016). These findings have been used to develop forms of ‘nudges’ which help to aid decision-makers to make more rational, and thus more optimal, decisions (Thaler, 2017).

However, the bulk of the research completed within the field has taken place within developed Western nations. Behavioural economic academic heavy-weights, who have been instrumental in the development of the field and the resultant theories, have been predominantly located in top universities and business schools in the United States, United Kingdom and Europe. Opposingly, the bulk of the work within developing countries has remained within a more macroeconomic and quantitative form (Precious & Asrat, 2014), which does not suffice for the qualitative, individual-level methodology required to assess the psychological factors that underpin behavioural economics.

Although the principles of behavioural economics are flaunted as universal, there has been a lack of empirical research in developing countries to determine whether there are any differences, subtleties or inconsistencies. It is of particular importance to establish this understanding considering the uniqueness of many developing countries from a socio-economic and political point of view, but also in terms of culture, language and identity.

The context within South Africa is a far reach from those found in the developed countries. Poverty has been on an upward trajectory over the past two decades, unemployment is at 29% and the stunted GDP growth is providing little relief (World Bank, 2019a). Poverty rates remain at over 40% and the country maintains one the lowest quality education systems in the world (Spaull, 2015). All of which provides for a heightened cognitive burden on individuals (Gabor & Brooks, 2017) rarely seen in the developed world.

This research therefore looks to assess the question of whether South African's are inflicted by the same types of irrationalities, biases and heuristics as seen in the international behavioural economic studies. In so doing, the formulation of interview questions was underpinned by an in-depth study of behavioural economic theory. Similarly, the qualitative nature of the methodology allows for the deeper individual assessment of decision-making and behaviour to establish the similarities, differences and subtleties between the Western literature and the South African reality.

Question 2

What do South Africans attribute to their personal gap between desired and actual saving behaviour?

The decline in household savings is certainly not an isolated incident, but rather a global phenomenon of declined savings over the past few decades (Amusa, 2014). It has been observed that the average global gross saving rate as a percentage of GDP has declined to 25.2% in 2017 from a modest high of 26.7% (World Bank, 2019b). However, the bulk of that decline has been as a result of reduced household saving. The total amount of net saving as a percentage of net household disposable income has dropped from 7.5% a decade ago to a paltry 4.8% (OECD, 2019a).

The declining household saving rate has been even more pronounced in developing countries where the average individual is poorer, less educated and suffers from greater gaps in financial literacy (Klapper et al., 2015). South Africa is such an example where net household saving rates are near to non-existent at 0.26 % of household disposable income (OECD, 2019a) and contributing a disappointing 1.2% to the country's GDP (South African Reserve Bank, 2017).

However, understanding saving in South Africa is complicated by the legacy of segregation and disenfranchisement during the apartheid era. Ending in 1994, this oppressive regime left most of the population excluded from the mainstream economy and conventional savings and saving instruments (Zwane et al., 2016). These discriminatory practices permeated every aspect of society with long-lasting negative effects on society and the economy which are still felt today and will be for decades to come (Syden, 2014).

Further consequences of this oppressive past are a youth unemployment rate of 54.7% (World Bank 2019a) and the world's worst inequality as recorded by the Gini coefficient (Graven, 2014). Coupled with low GDP growth, the macro-environment of South Africa makes it very difficult for the majority of individuals to confidently save the desired amount. Moreover, the dysfunctional education system is of an extremely poor quality leaving the majority of students without the necessary knowledge to understand how to uplift their circumstances and improve their economic position (Roodt, 2018).

There are several other factors that have been observed to compound this saving dilemma. Having one of the most sophisticated financial service sectors on the continent and new-found financial liberalisation has provided for easy access to credit and thus a trend of borrowing instead of saving (Amusa, 2014). This is negatively perpetuated by the aspirational culture of the populace in which consumption is prioritised over saving as the majority poor population strives to at least look like they are progressing (Syden, 2014). Moreover, the extensive social security system develops a reliance on government grants for when issues arise and thus reduces the motive for precautionary or retirement savings (Precious & Asrat, 2014).

While there has been substantial research as to the determinants of household savings in South Africa, the majority of the studies have focused on macroeconomic factors, yet little has been done on better understanding the microeconomic context that confronts individuals on a daily basis (Zwane et al., 2016). This study seekd to understand, from a first-hand perspective, the perceptions and struggles of the average South African to better appreciate the barriers and challenges that they face in their saving endeavours. The qualitative approach will allow for a deeper understanding of the microeconomic factors that prohibit South Africans from achieving the positive upliftment that savings have been found to provide (Syden, 2014).

Question 3

> Could the behavioural economic principles utilised in the ‘Save More Tomorrow’ programme have the same positive effect on saving behaviour in the South Africa context?

Through the deeper understanding of behaviour and decision-making, behavioural economics has been able to provide for a more robust understanding of how economic decision-making truly takes place. It has expanded the field’s pre-conception of human beings as rational beings to the more realistic view that individuals are unable to be completely rational and often resort to biases, shortcuts and over-simplifications in their decision-making process (Hoff & Stiglitz, 2016).

Through the research completed within the behavioural economic field, several principles have been developed and tested to show how the irrationalities of individuals can in fact be predicted and utilised to aid the individual in optimising their decisions (Lehner, Mont, & Heiskanen, 2016). These findings have been dubbed as ‘nudges’ and are used to help the decision-maker to make the choices that would objectively improve their wellbeing.

In utilising this approach, renowned behavioural economists Richard Thaler and Shlomo Benartzi devised the Save More Tomorrow programme to help improve the saving rate of individuals in the United States of America. By better appreciating the irrationalities of human beings, they were able to underpin the programme with several behavioural economic principles in order to help nudge the user to make better decisions about their savings (Thaler & Benartzi, 2004).

The programme has been globally recognised for the positive difference it was able to make in only a matter of years. The first corporate participant of the programme were able to quadruple the average saving rate of its employees in only four years and a similar success has been observed across multiple different industries and company types (Fox & Sitkin, 2015). Through extrapolating the measured results of their programme, Benartzi and Thaler (2013) have estimated that the accumulated increase in saving as a result of the programme has boosted annual savings by $7.4 billion in their population of 1.8 million contributing participants.

However, the effectiveness and outcomes of these types of interventions have been argued to vary dependant on the context, given the complexity and diversity of human behaviour (Lehner et al., 2016). Therefore, results from one success story such as the ‘Save More Tomorrow’ programme cannot be automatically generalised to have the same effect in a different context.

As much as South Africans would greatly benefit from the improved saving rates delivered by the ‘Save More Tomorrow’ programme, the socio-economic environment between South Africa and the United States of America is greatly different. Given the oppressive past of South Africa affecting the majority of the population, the country is inflicted with far greater levels of unemployment, poverty and inequality while education levels and basic services are of a far lower level (World Bank, 2019a; Graven, 2014; Hurlbut, 2018).

It is because of the vast discrepancies in the wellbeing between the average South African and North American, and the myriad of cultural nuances, that it is important to not take for granted that the ‘Save More Tomorrow’ programme will resonate in the same way.

Through the underpinning of this research paper in the behaviour economic theories used by Thaler in his programme, it empowers the qualitative approach of this study to gain a deeper understanding of the saving decision-making and behaviour of South Africans. This is in order to ascertain whether the “Save More Tomorrow’ program might have the same positive affect on South African saving behaviour or if alternative interventions would be necessary.

Research Method

Choice of Method

The study of the behavioural economic field required an in-depth understanding of the psychology of individuals, allowing deeper insight into their decision-making process and the psychological process undertaken. To deliver this depth of understanding required a qualitative approach that would facilitate sufficient exploration into each participant (Gordon, 2011). This qualitative approach best enabled an in-depth understanding of social phenomenon (Williams, 2007) such as the behavioural tasks required in the decision-making process of saving that were of interest for this study.

Many of the significant behavioural economic studies completed in the past, as seen in the collection of works by academic heavy-weights (Karelaia, 2009; Thaler, 2016), were developed through an experimental research methodology (Korzeniowska, & Sułkowski, 2018). This approach was a powerful tool that enabled those researchers to take hypothesised theories of human behaviour and provide scientifically grounded experiments to ascertain whether a tested variable was directly responsible for the changes of a secondary variable (Mangal & Mangal, 2013). Meanwhile, many of the studies on saving behaviour in developing countries have been from a macroeconomic point of view through assessing quantitative data (Abu, Zaini, Karim, & Aziz, 2013; Akpan, Udoh, & Aya Aya, 2011; Ahmand, & Asghar, 2004; Amusa, 2013).

Given the accomplishments of this previous body of behavioural economic work, this study was undertaken to rather compliment these previous behaviour economic and saving behaviour studies through a qualitative approach. In this approach the output instead focussed on gaining a deeper understanding of why people behaved in a certain manner (Gordon, 2011) within each of the predetermined behavioural economic principles.

The methodology followed both a deductive and an inductive approach in order to ground the research in theory, yet still provided qualitative findings that could be purposefully utilised. This combined deductive and inductive approach was encouraged, where possible, by Saunders and Lewis (2018) in order to provide for a more holistic research process. The deductive approach ensured that the study was grounded within theoretical concepts (Yin, 2016) and thus provided a sound platform to test those theoretical propositions (Saunders & Lewis, 2018). Through the thorough coding and thematic analysis of the data collected, an inductive approach facilitated a deeper understanding of the data collected and the meaning of the holistic findings (Yin, 2016). This facilitated the creation of new insights based on the data observed that expanded the researcher's theoretical knowledge (Bansal, Smith & Vaara, 2018).

In order to maintain focus and efficiency, the research process maintained a mono-method approach. Given the time constraints, the project was restricted to a cross-sectional approach in that it only took place at a particular time (Saunders and Lewis, 2018) and not an extended time period. The data collection followed a semi-structured, face-to-face interview approach in order to provide flexibility as to the phrasing of questions depending on the context and the circumstance of each interview (Yin, 2016).

The methodology utilised an interpretivist philosophy to enable the study of social phenomenon and the understanding of the variances between human beings in their role as social actors (Saunders and Lewis, 2018). The usage of this philosophical lens enabled the researcher to gain a deeper understanding of the intention and meanings of the participants (Myers, 2013).

Population

The population was defined as low-to-middle-income, Gauteng based adults currently earning a salary. There was a certain level of convenience sampling as to the choice of geography, as this was where the researcher was based, and therefore the most feasible option for conducting qualitative face-to-face interviews. However, this segment did hold certain favourable factors for this study.

The selection of the low-to-middle-income demographic was based off this segment's considerable economic growth illustrated over the past two decades, and thus the long-term collective financial potential of that segment (Burger, Steenekamp, van der Berg, & Zoch, 2015). This trend aided the hypothesis that this group has the greatest long-term financial impact on the country and should be deemed a priority in insuring sufficient saving rates in order to optimise the above mentioned positive impacts of saving for the individuals and society as a whole.

Although chosen out of convenience, as the business hub of South Africa, Gauteng has been a key geography for upward mobility and has been crucial in the wave of new middle-class black South Africans (Mattes, 2015). The Gauteng population, the fastest growing in South Africa, is estimated at over 15 million (Statistics South Africa, 2019a) with the predominant black population making up 76% (World Population Review, 2019).

Finally, it would have been difficult to garner reliable data from those not earning an income as they were under far more severe financial constraints. Their inability to save would not necessarily have been as a result of their behaviour, but rather necessity and the resultant cognitive burden of their financial position may have limited the constructive value they were able to offer this particular study (Mani, Mullainathan, Shafir & Zhao, 2013).

Unit of Analysis

The sample unit of this study comprised of the individuals interviewed and the analysis performed on the transcripts collected in the interview process.

Sampling Method and Size

There were several different estimates as to the number of people that would fall into the population defined above. However, based off Statistics South Africa's figures, an estimation could be developed. Of the 58,8 million people in South Africa, 15,2 million of them resided in Gauteng with 10,5 million were of working age (Statistics SA, 2019a). With the labour force participation rate of 70,3% (Statistics SA, 2019b) in the province, that left 7,4 million economically active people in the province that therefore fell into the overall population of this study. Roughly 10% of that group would be deemed high income (SALDRU, 2020) and are thus excluded, leaving an estimated total population of 6,66 million.

As there were no set rules for sampling size in qualitative research (Patton, 2002) the researcher took cognisance of the findings during the interview process in order to gauge once saturation was achieved – the point where limited, or no, further insights were generated from new data - in order to determine that a great enough number of individuals had been assessed (Creswell & Creswell, 2018). However, provided that this study was attempting to understand the behaviour of a significantly sized population, efforts were made to err on the side of collecting more data than was potentially necessary.

The qualitative research process required the researcher to rely on his own judgement when choosing members of the population to participate in the study and thus utilised a purposive sampling approach (Saunders, & Lewis, 2018). Therefore, the researcher was required to use his own sound judgement when choosing members of the population to participate in the research. Given that the particular population size for this study was diverse in nature, the study aimed for a relatively equal distribution of gender, age, culture and income across the population.

Measurement Instrument

Given that this was a qualitative study, the researcher served as the measurement instrument and took it upon himself to utilise his sense and sound judgement to gather information and interpret the context of the interviews (Maxwell, 2013). Considering this, interview guides and pre-developed questions were utilised as a practical tool in order to ensure that the data was collected in a consistent manner from the various participants.

Research Tool Design

The research tool was designed as a semi-structured, face-to-face interview questionnaire. This first-hand engagement approach allowed the researcher to be guided by predetermined questions, but vary the order of the questions in order to facilitate a more conversational and flexible approach (Saunders, & Lewis, 2018).

Given the vast pool of research and behavioural economic theories, the question set was themed into the six behavioural economic principles, identified and utilised by Thaler and Benartzi (2004) as part of their ‘Save More Tomorrow’ programme, in order to provide focus to the research. This decision was based off the proven success of the programme across industries, the programmes prioritisation of behavioural economics in its development, the available data and results of the implementation, as well as the high-esteem in which Thaler and Benartzi were held within the behavioural economic academic field. The six principles were thus: bounded rationality; self-control; status quo bias; loss aversion / endowment effect; heuristics; and peer effects.

However, the understanding of each principle needed to be informed by a far greater collection of academic research, purposely chosen to span a varied geographic and time horizon. Several well-regarded, peer reviewed academic articles were utilised to inform the question set for each principle. A process of consolidating the key outtakes of each journal article was used to thematically determine the most pertinent aspects of each principle that needed questioning. This allowed for the overarching themes across the literature to be clearly identified in order to provide structure and a framework from which to compile the instrument, providing a systematic approach to elevate the validity (Nowell, Norris, White & Moules, 2017). These questions were further audited against the three research questions of this study in order to ensure that they provided relevant context and data for providing the deeper understanding and insights required.

The framing of each of these questions were considered in terms of the context of saving as well as worded in their most simplistic form in order to maximise understanding. Table 1 illustrates the selection of sources that informed the question set for each behavioural economic principle.

Table 1: Literature Utilised to Inform Interview Questions

Principle	**Sources**
Bounded rationality	Garcia, M. J. R. (2013). Financial education and behavioral finance: new insights into the role of information in financial decisions. *Journal of Economic Surveys, 27*(2), 297-315. Harstad, R. M., & Selten, R. (2013). Bounded-rationality models: tasks to become intellectually competitive. *Journal of Economic Literature, 51*(2), 496-511. Klaes, M., & Sent, E. M. (2005). A conceptual history of the emergence of bounded rationality. *History of political economy, 37*(1), 27-59. Lee, C. (2011). Bounded rationality and the emergence of simplicity amidst complexity. *Journal of Economic Surveys, 25*(3), 507-526. Ross, D. (2014). Psychological versus economic models of bounded rationality. *Journal of Economic Methodology, 21*(4), 411-427.
Self-control	Bernheim, B. D., Ray, D., & Yeltekin, Ş. (2015). Poverty and self-control. *Econometrica, 83*(5), 1877-1911.

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Loss aversion / endowment effect	Etzioni, A. (2011). Behavioral economics: toward a new paradigm. *American Behavioral Scientist, 55*(8), 1099-1119. Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1990). Experimental tests of the endowment effect and the Coase theorem. *Journal of political Economy, 98*(6), 1325-1348. Kahneman, D., Knetsch, J. L., & Thaler, R. H. (1991). Anomalies: The endowment effect, loss aversion, and status quo bias. *Journal of Economic perspectives, 5*(1), 193-206. Laibson, D., & List, J. A. (2015). Principles of (behavioral) economics. *American Economic Review, 105*(5), 385-90. Marzilli Ericson, K. M., & Fuster, A. (2014). The endowment effect. *Annu. Rev. Econ., 6*(1), 555-579. Morewedge, C. K., & Giblin, C. E. (2015). Explanations of the endowment effect: an integrative review. *Trends in cognitive sciences, 19*(6), 339-348.

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A general section was also constructed in order to ascertain a baseline understanding of the participant within the saving context through five key indicators. The initial question requested certainty as to whether the participant received some form of income. This was determined as a qualifying factor for this assessment as it would be deemed unfair to question an individual, without the security of an income, as to their saving patterns. This was followed by requesting an estimate of household income. The brackets for this were derived from the National Income Dynamics Study (NIDS) South Africa, the country's most comprehensive and long-standing income survey. The breakdown provided was what they utilise to distinguish the following categories: chronic poor, transient poor, vulnerable, middle class and elite (Zizzamia, Schotte, Leibbrandt, 2019) and was used as a useful reference point against the findings of this study. As they did in the NIDS study, the number of people reliant on that household income was also questioned in order to determine an average per person income.

Similarly, it was questioned upfront as to whether the participant was currently saving in order to determine the correct framing of the follow-up questions as well as understanding the type of saving platforms that were being utilised. A second set of questions were predetermined for the situation where there was no saving, so that the same type of points within the same themes were being assessed, however the wording of these questions was better suited for those that did not save.

Data Gathering Process

The data was gathered through in-person assessments in which the researcher self-administered the interviews in order to maintain control and reduce variability. The question set was themed by the six behavioural economic principles identified and utilised by Thaler and Benartzi (2004) as part of their 'Save More Tomorrow' programme and allowed for flexibility that enabled further questioning as to participants saving behaviour. In depth literature research took place within each of those principles in order to thematically derive key considerations from which each specific question was developed. Two pilot interviews were conducted with participants from within the target population in order to trial the effectiveness and clarity of the structure and question set (Saunders & Lewis, 2018). This process led to minor cosmetic adjustments of the wording of some of the questions in order to increase clarity and understanding.

Through developing this formalised structure and scripted approach, established through theoretical research, the research was able to increase its consistency, reliability and ability to be reproduced in different environments and at different times (Golafshani, 2003). Given the subjective approach of qualitative interviews, the validity may have been questioned. However considerable effort was spent in ascertaining how notable behavioural economic academics had proceeded with similar qualitative interviews in order to replicate the base structures and procedures that allowed for their elevated validity.

The interviews were recorded by the interviewer with the permission of the participants for the purpose of ensuring accurate transcriptions were developed. Moreover, detailed notes were taken during the interview process and the actual transcribing of the data was compiled by the researcher to ensure maximum familiarity with the content before the coding process commenced. This approach was followed to increase the trustworthiness and transparency of the collected data.

A total of 31 interviews were completed during the period of December 2019 and January 2020. Each interview commenced with a detailed outline of the context and purpose of the study as well as surety that all responses would remain confidential and were for academic purposes only. Most interviews were completed at the participant's place of work to ensure it was a surrounding with which they were both familiar and comfortable. The structure of the interview guideline was managed to ensure that open and honest dialogue was developed (Zikmund, Babin, Carr & Griffin, 2013) and effort was made to encourage the questions to be answered without any feeling of prejudice in order to contribute to the exploratory nature of the research.

The interviews were transcribed and coded in batches of four in order to maintain an oversight as to the number of new codes or repetition of previous codes. In this manner, the researcher was able to assess the rate of saturation on an ongoing basis. Figure 1 illustrates how saturation was reached around the 31st interview in the coding process.

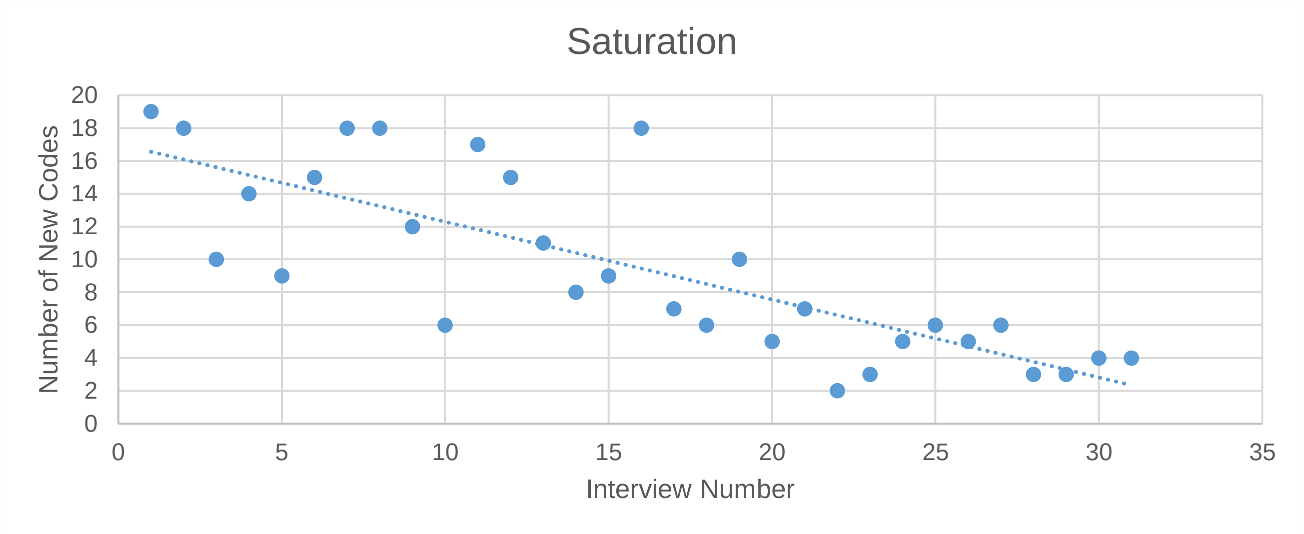

Figure 1: Saturation in Interview Process

Analysis Approach

Once the data was collected, a thorough coding and thematic analysis was conducted across the interviews. Considering the qualitative approach, a thematic analysis was the recommended method for flexibly assessing and developing findings from the data collected, particularly for the use of behavioural sciences (Braun & Clarke, 2006). The assessment of the data focussed on the identification of themes that informed deeper insights on the research questions (Zikmund et al., 2013).

The process was built on the guidelines set out by Braun and Clarke (2006) to ensure a comprehensive and controlled study. Through self-administering all of the interviews and transcribing them each individually, the researcher allowed for a deep familiarisation with the content to better understand the meaning. Furthermore, the researcher identified 298 unique codes across the interview set, which, through a mapping process, were compiled into groups and themes allowing for key insights to be developed. Each code was populated onto a system that allowed for multiple identifiers to be attached to each code. In this way, each code was allocated to the themes for each of the research question: one of the six behavioural economic theories; the key saving themes; as well as the applicable design principle from the 'Save More Tomorrow' programme.

This system allowed for easy consolidation of insights per each research questions and led to the development of a framework for the key outcomes. The framework provided for an easy to interpret visual depiction of the key findings. This systematic process allowed for greater control of the assessment of the data in order to optimise the reliability and validity of the findings.

Considering the outcome of these findings, a further investigation into the literature review was undertaken in order to provide theoretically derived suggestions as to how the findings may be functionally incorporated into saving endeavours in South Africa. This allowed for triangulation of the data gained in the interview process with that already determined in previous research in both behaviour economics and saving behaviour.

Limitations

It is well known that qualitative studies such as this are subjective in nature and are therefore constrained by several forms of biases (Zikmund et al., 2013). The researcher took requisite cognisance of his own background and context in order to be aware of, and manage, his own biases as one of the main risks of qualitative research are the assumptions and biases introduced by the researcher (Bansal et al., 2018). The researcher ensured that a strict process was followed, and that considerable self-awareness was observed to reduce bias when assessing results. Similarly, there may also have been some respondent bias in that they may have provided answers that painted themselves in a more positive light than their reality. Techniques of comfort and reassurance that the interviews were fully confidential were utilised in order to reassure the participants and improve their comfortability with representing their true situation and opinions as accurately as possible.

Similarly, the researcher was only able to speak English and comes from a Western cultural background, whereas many of the respondents did not have English as their home language and came from a variety of backgrounds and cultures. These differences were taken into consideration when reviewing the results. Moreover, given the cross-sectional and geographic restrictions of the data collection, the researcher was not able to consider behavioural changes over a period of time or across different geographic locations (Saunders, & Lewis, 2018). The results, therefore, were only a representation of the 2019/2020 period and may not be sufficient to be utilised to develop inferences for past or future periods. Considering this, generalisations on the results of the studies were unable to be made in the same manner as would have been allowed through probability sampling (Maxwell, 2013).

It must also be documented that this study took pace in the period leading up to, and just after, the December festive season. This period is often considered the most difficult for the general population to consider saving given the high consumer spend on holiday activities and gifts as well as supplies for the start of the New Year. Cognisant of this, the researcher encouraged the participants to reflect not just on their habits during this period, but rather of their habits over a longer period of time.

RESULTS

Introduction

The results section compiles the key observations and findings from the 31 qualitative interviews conducted as part of this study to provide insights for the three research questions. Post a description of the interview participants, each research question is assessed individually, providing for the structure of this section. This will be achieved through presenting the thematic analysis of the coded data obtained from the semi-structured interviews, coupled with verbatim quotations from the interview participants to aid with context and understanding.

Interview Participants and Context

The participants used for this study were all Johannesburg based, the biggest city in Gauteng, although several had their family home in rural South Africa. All were employed within the city across a variety of work types within the designated low-to-medium income bracket. They were selected in order to provide for a heterogeneous sample across age, gender, employment type and saving lifecycle. All participants identified as black. Although the majority were not first language English speakers, they all displayed high enough levels of conversational English to appropriately engage. All names and identifiers have been removed, as agreed with each participant in order to protect their identities, and replaced by a numbering system recorded in the chronological order that the interviews took place.

The participants were selected in order to cover a range of employment types that can be grouped into the eight categories illustrated in Figure 2. These employment types were sought out specifically as typical roles that would be found within the target population. They also provide for a range of income brackets and a variety of different contexts within their job description, employment contracts and professional expectations.

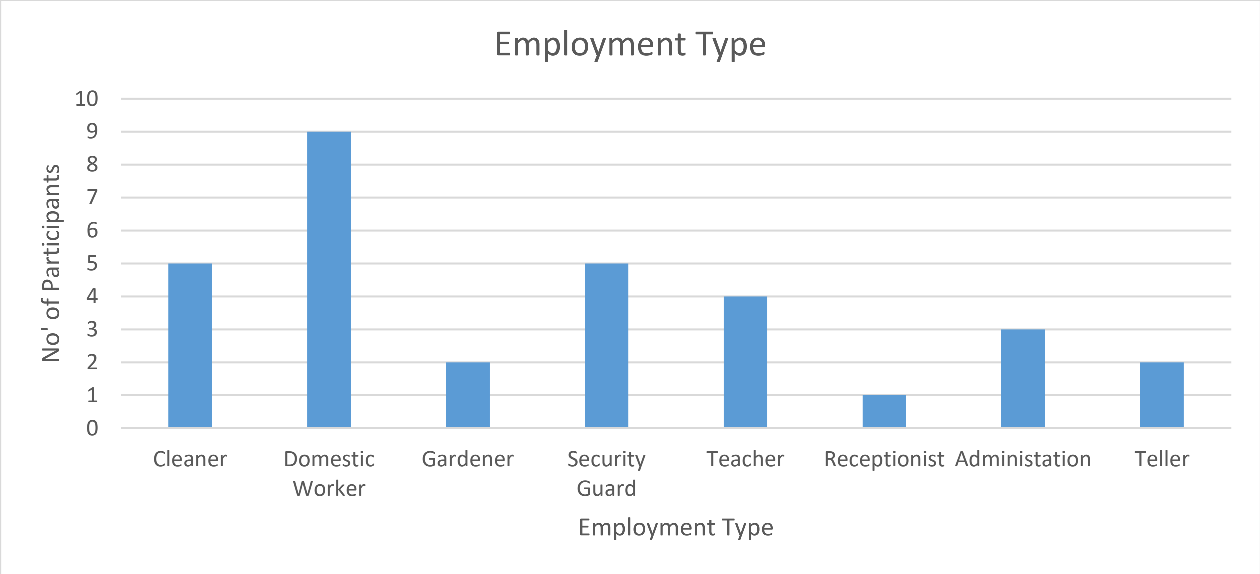

Figure 2: Types of Employment of Participants

The monthly household income of these employment types correctly fitted within the prescribed target population for this study and provided an accurate representation of the type of salary earned by low-to-medium income, Johannesburg-based South Africans. The lowest monthly household income was R3 500, which is the legally stipulated national minimum wage in South Africa. The highest monthly household income was R27 000, earned by a couple who were both earning higher than the average individual salary recorded in this study. The median monthly household income of the participants was documented as R6 821. Although these job types would be classified as low-to-medium income, it is illustrated in the South Africa Labour and Development Research Unit (SALDRU, 2020) income comparison tool, found in Appendix 6, the average participant was within the top 36% of earners in South Africa. This higher than expected percentage is as a result of the high unemployment rate within the country.

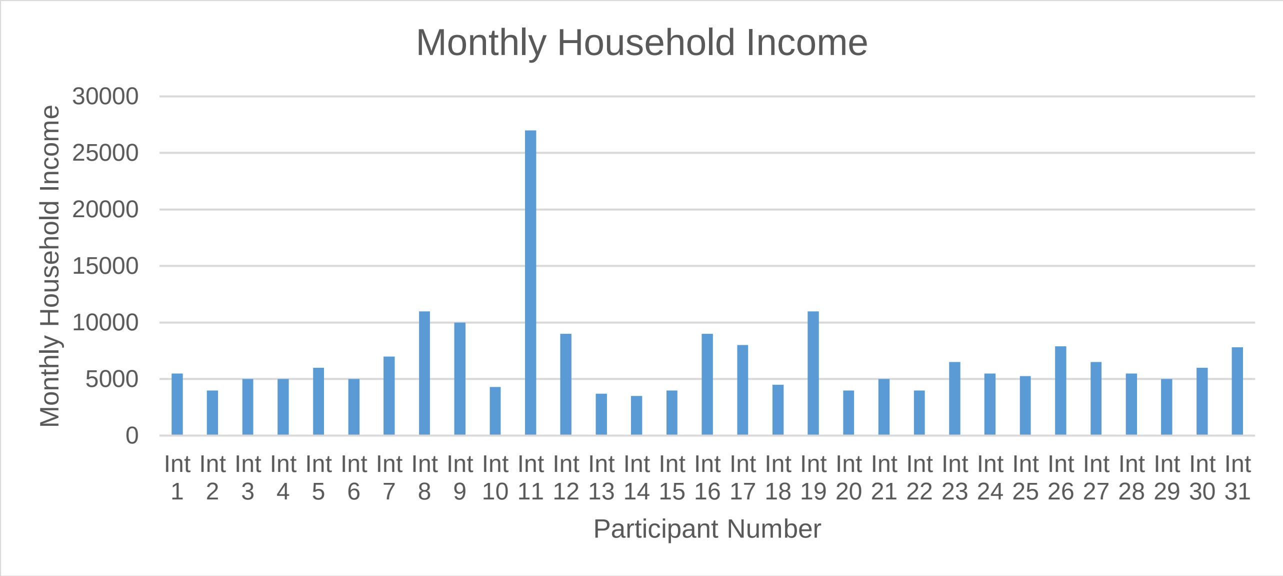

Figure 3: Monthly Household Income of Participants

All participants listed a variety of constraints on their salary, however, a significant burden is the number of dependants that each participant's salary was required to support. Nearly two-thirds of participants were the only breadwinners in their household, yet were required to support not only their own children, but children of other relatives, as well as their own parents. This has been referred to as the 'Sandwich Generation' in popular media because of the obligation of these earners to support both the generation below and above them.

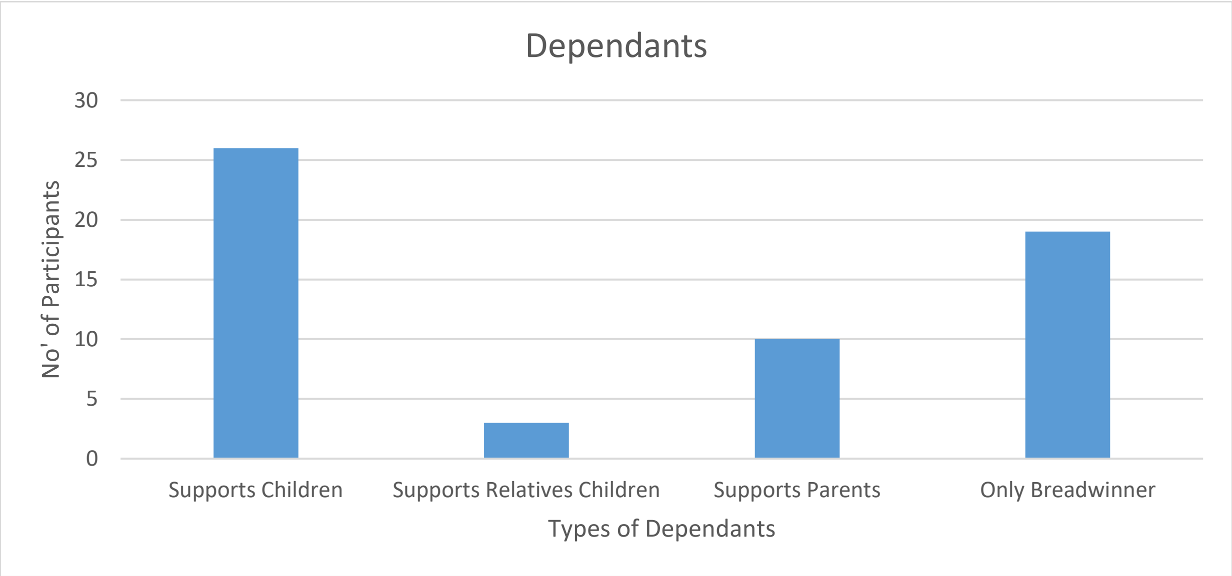

Figure 4: Dependants Reliant on the Participants Salary

The ability to save and the manner of saving of the participants varied and have been grouped into the eight categories illustrated in Figure 5. Eight of the participants confessed to having absolutely no form of saving, rendering them at the mercy of any form of unsuspected expense or crisis and without any reserve for retirement. There were only 11 participants who would save for the medium-to-long term in order to purchase something more substantial, whilst only seven participants had a form of retirement savings established.

Many individuals made use of saving groups called a stokvel. The most popular, the annual stokvel, is structured so that a group of between five and twenty individuals save the same amount each month in a central location. This is done for the duration of the year, occasionally using an interest-bearing vehicle, and the full amount is withdrawn at the end of the year and given back to all of the individuals. Three participants made use of a rotational stokvel which is typically between five and twelve members who, each month, pay a predetermined amount to one of the members for that individual to spend. The member who receives the funds is then rotated each month until the cycle restarts with the original recipient. Retailers had also established a form of stokvel which a further three participants utilised where each group contributes monthly to a fund that is held by the retailer. At the end of the year the fund is then made available to the members to be spent at that retail chain.

The key limitation, across this range of stokvels, is that they are designed for short-term saving, which merely delays consumption for the period of a year. This same concern also applies to the six participants who were recorded to save individually with the bank, or the three who save cash on the side, for consumption at the end of the year.

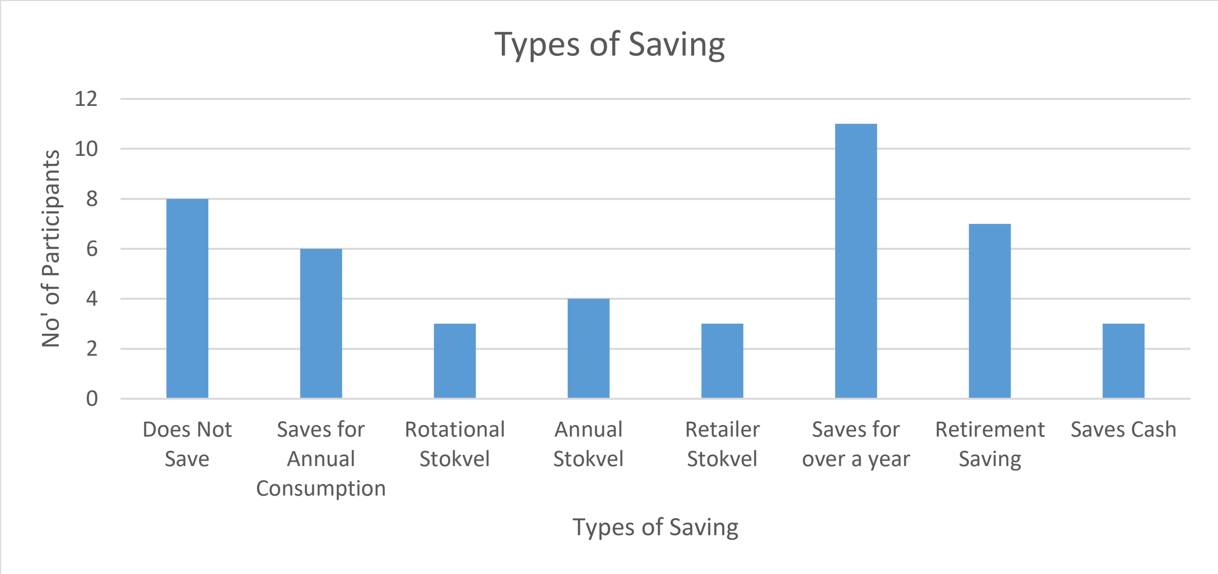

Figure 5: Types of Saving Utilised by Participants

Results: Research Question 1

Do South Africans display the same decision-making irrationalities as illustrated in Western behavioural economic research?

Introduction

The bulk of behavioural economic theory that has been developed has advocated that the principles that underpin their findings are fundamental truths for all human beings. It suggests that the irrationalities, biases and heuristics illustrated within their studies are universal in the manner they afflict human behaviour and decision-making and can thus be utilised globally. However, the environment and dynamics within a developing country, such as South Africa, greatly differ from those of the developed Western countries that dominate behavioural economic research. By developing the research tool through underpinning the question set in behavioural economic theory, the data collected allows for this section to reveal whether the participants are also inflicted in a similar manner by the same irrationalities as outlined in the respective behavioural economic principles described in the literature review. This section will review each behavioural economic principle individually and conclude with the key findings.

Bounded Rationality

The most optimal choices are often not made as a result of the complexities of decision-making and the cognitive limitations of human beings. These cognitive limitations in the South African context are exacerbated by the lack of financial literacy and the inaccessibility of requisite information and advice at hand.

In attempting to identify a top-line sense of financial literacy, the participants were asked whether they could explain what interest and inflation are and how they work. Only four participants of the 31 were able to provide an explanation that was somewhat correct for inflation whereas the remaining participants gave a very vague or incorrect response, or responded that they did not know. Eleven of the participants were able to display a base-level understanding that interest means that one receives a little more if they save or have to pay a little extra when you borrow. However, the majority could not provide a reasonable definition. This may also have to do with English generally being the second language as over half of the participants who could not define interest mentioned how their savings did or did not receive interest. This suggests at least a simplistic appreciation of the concept even if they were not able to verbalise it.

> *"Interest is very difficult for me. But I know that sometimes if you take the money, if maybe you want to borrow the money from the bank and then they going to put interest, so then you going to have to pay interest. I don't know how much interest."* (Participant 1)

> *"It's good, it's good to know that if you save R500 then at the end of the month you've got R500 and maybe R33. So that R33 I didn't work for. So, it is an interest for the bank, so it is very good. It is profitable."* (Participant 20)

Similarly, over half of the participants mentioned that they found banks overwhelming or confusing, often struggling to understand how their fees or products work. This would regularly lead to resentment towards the banks as indicated by seven participants exclaiming that they found the banks unfair or that they did not trust banks. One of these seven felt she was taken advantage of by the bank because of her lack of understanding. It was also notable that a handful of the participants defaulted to their bank's basic saving product without doing any research around it and other options because it was the easiest or most convenient option.

> *"No, not really. What can I say, because even sometimes when you explain to me I say yes because the way you calculate things and all of that I can't understand. But I have no choice, I need to bank my money, whatever you are telling me this and this and this."* (Participant 18)

> *"I didn't know, I would just sign. I was just happy that I got a loan and I can do the house.* (Participant 21)

This inability to make the most optimal choice was also revealed in their thought process for retirement. Although all members say that they would like to save for retirement, 24 participants had never tried to, or do not know how to, work out how much they need to save. Five of those participants said that their retirement would just be what it ends up being without having any type of goal, while three mentioned that they do not know how or when to start saving for retirement.

> *"Yes, it depends on how long I have been saving and that will depend how big my (retirement) saving is."* (Participant 12)

> *"I haven't really thought about it. In my head I've been thinking 30 or 35. But I hear it's quite an important factor because I have a mentor who used to tell me that, listen, retirement is a big thing, and you need to start saving for it."* (Participant 26)

> *"Yes, I do want to do that (save for retirement) but I don't know how to do it or when?"* (Participant 2)

Self-Control

It generally holds true that, around the world, individuals appreciate that saving is a good thing and want to save, but one of the greatest barriers is their internal self-control to start saving and continue to do it. This was reflected in the data collected where every participant who did not save wanted to save, and most of the participants who did save would like to save more. The ambition is there, but the self-control to execute that ambition is lacking.

> *"Yes, it is good to save, but I don't know how I can manage with that…. I would like to try and save some money, because money is key."* (Participant 22)

A number of the participants attempted to deflect responsibility for their lack of self-control by outlining the pressing environment in which they live and the financial limitations they face. The consensus was that, no matter what their household income was, they did not earn enough and had too many costs to take care of. Eight of the participants sighted the costs involved with raising children too significant for them to be able to save, while ten also struggled with the fact that they have to support their parents or send money back to their rural home for extended family.

> *"But due to what I am getting and my budgets I can't (save). But I'd love to. But I'll see, perhaps when the kids are older and I don't have to take care of them."* (Participant 20)

> *"Yes, you know with blacks you also have to look after you parents."* (Participant 5)

> *"If my salary is right then I can save more money."* (Participant 4)

Most participants illustrated forms of self-control issues, generally as a result of their inability to control their own short-term urges. Several participants confessed that they budgeted or set goals and would end up failing in achieving those by overspending on non-mandatory items. There were as many as seven participants who had managed to save earlier on in their life and then spend the full amount, leaving them with no saving. A leading factor was the lure of consumerism in which they purchase clothes, cars or treats that, in retrospect, they realised that they did not need. Two went so far as to overextend themselves with so much debt that the repayment obligations served as the main reason they were now unable to save.

> *"We always say like in December, we talk and say in the first month of January we want to do this, we want to do this. Come January we don't do it. And soon it is December. You know talk is cheap. You come December and you can't fulfil what you want, and you say next year I will be doing this and comes January, and soon it is December and you didn't save anything."* (Participant 21)

> *"Yes, because I'm a shopaholic, you know. But there are some who are SHOPAHOLICS! Who don't want to see a sweet passing or don't want to see a clothing or whatever."* (Participant 19)

> *"No, it was my careless mistake. Sometimes we do things that… I had so many credit card account. Yes, I just took a little bit to do that – but I am still paying off that… since then I haven't used it."* (Participant 21)

There were at least some positive signs of self-restraint shown by particular individuals, who were overwhelmingly the individuals who showed the most promise in their saving behaviour. Although the general trend was to save for a year in order to spend it all in December, there were 11 participants who were finding ways to save for over a year and seven participants who had some form of retirement saving. Two participants had even set up long term saving funds for their young children.

However, all participants who were showing positive signs of saving revealed that they had to create a variety of rules to aid in managing their self-control. Most indicated that they required their saving money to be kept completely separately from where they received their salary. This came in the form of opening separate bank accounts, sending a monthly amount to a stokvel or requesting their employer to hold the money on their behalf. The community nature of the stokvel helped to motivate discipline via a form of peer-pressure while many of the separate bank accounts were established with limitations on how often and for what they could withdraw the savings. One participant went as far as cutting the card for his saving account in half to ensure he did not use it.

Monthly debit orders were an often-used control mechanism for successful saving which would be set up to occur a day or two after their salary is received. Five participants made use of a list system where they would work out what they really needed at the start of the year and ensured they saved up for only those items. Alternatively, two participants would pay for a full year of school fees up front so that they no longer had access to that money. Five participants would refrain from ever checking how much they had saved so that they were never tempted to use some of it.

> *"As soon as my salary went in, there must be a certain amount that they will take for me, and I will only use it when there are emergencies. Because sometimes I'm misusing money. Holding money, you end up spending unnecessarily."* (Participant 27)

> *"I am quite strict for when things come up, I'm quite strict. You know what I do, in my life, is I don't just change my mind because of the situation. I stick to the point, I stick to what my promise is. I don't change my mind."* (Participant 20)

> *"Because if you check you then find out that you have maybe R50 000 and you like, heh, I need this, I saw this, and then you start spending your money. So it must just stay there. Even the notifications from the bank I just delete because I don't want to know how much is in that account."* (Participant 19)

Status Quo Bias / Inertia

Many of the participants felt they were stuck in their current situation and could not think how they might be able to change their current situation. When asked how they believed they could improve their savings, something all of them wanted to achieve, two-thirds could not propose a rational solution, instead resorting to blaming external limiting factors. A few of those confessed that they had never taken the time to think about it, or where they had, they did not do anything about it.

> *"We are living from hand to mouth on a daily basis. At my age, I thought that I would be able to say that I could save R1000 a month, but I can't. So that is why with the stokvel I try and meddle with people to see how we can move forward. We can't go back – we want to move forward with life, but it is hard."* (Participant 11)

This complacency was further illustrated by three participants who said they wanted to change who they banked with, however they had never gotten around to doing it. Similarly, there were four participants who said that if they started earning more they would not change their saving approach or consider alternate saving options. Six of the participants mentioned that they had been saving the same monthly amount each year for the past several years and had not considered increasing that amount in the future.

> *"So now I have incidences with both 'X Bank' and 'Y Bank', it is not just one bank. I have had people talk nicely about 'Z Bank' but I am not sure if I want to change banks. You know when you are so comfortable where you are, but you are not happy you just stay there."* (Participant 16)

There were a handful of participants who illustrated how they were able to make a positive change to their circumstances through their own self will. Within this group the key driver was the ambition to move themselves out of the poverty that they were born into or to provide their children with opportunities that they were never afforded. Five of these individuals had obtained secondary forms of informal employment with which they could save for improving their circumstance or investing for their own, or their children's, future.

> *"The main reasons that I save – I grew up in a poor family, so for years now I thought that maybe I can do something, that I can start something to do."* (Participant 3)

Loss Aversion & Endowment Effect

Across the participants it was easy to observe a real fear of moving backwards. Having mostly been severely negatively affected by the oppressive nature of apartheid, they have had to work especially hard to improve their living standards and achieve what they have. It would thus be an indictment to have to go back to where they once were and not move towards the goals and ambitions they have in their relatively new democracy. They illustrated their pride in what they had been able to achieve and wanted to maintain that positive momentum for their children.

> *"I know I am getting a small money, but I have achieved greater things with this little money... So I am trying by all means to do something that will make me to have success, you see."* (Participant 9)

> *"Because I believe that we all have dreams, so in order to have that dream you have to make good decisions and then you achieve them."* (Participant 28)

There were several incidents mentioned where the fear of falling backwards, or losing what they had, could potentially impede their ability to fast-track that forward momentum. Many had plans to study further, invest in themselves or start a business, however, at the time of the interviews, they had not gone forward with it. In most of these incidences, financial or life stage limitations and constraints were mentioned. Although many of the participants had been living in trying circumstances, it could be argued that by temporarily increasing their struggle, by foregoing some finances or quality of life in the present, they may be more likely to make significant long-term improvements to their circumstance.

> *The money that I am getting is not enough. But at least it's putting food on our table and I'm grateful for that… So, because we had a family background that was bad, I had to stay at home, I started working. So, I don't want those things to come to my son. I want as soon as he finishes his studies he must just go straight to university."* (Participant 27) {However, she had not yet saved anything and he was due to start University in two years}

This fear of loss could also be observed in their saving habits. There was certainly a heightened negative feeling towards the loss that they felt when banks charged them fees. This negative feeling would often outweigh the benefits of the security that the bank provides them and even caused four of the participants to prefer to deal in cash than with the banks. Considering the crime rate of South Africa and the already mentioned poor self-control, the cost of not dealing with the bank may be a lot higher than those fees.

Similarly, two participants decided to forego the potential upside of investing money as they were too concerned that the South African economy would crash and their investment would be worth nothing.

> *"Ya, because when you get paid into a bank it pays my money into the bank account, the banks say she is paying me R6000, I never get R6000 in my account if you know what I am saying? Because of the bank transactions. So you end up being paid in cash."* (Participant 16)

Moreover, nine of the participants' saving strategy was to wait until the end of the month, see what is left, and save that instead of having a set amount come off at the start of the month. This would prohibit them from 'saving too much' and, as six participants explained, would make them worry that that they might need that money after putting it away. There was thus a palpable sensation of loss when the money was taken away to their savings and they no longer had direct control of it.

> *"Yes, because sometimes I save, and then after that I need money, but I have already saved it."* (Participant 1)

There was also an interesting prioritisation of tangible assets over long-term investment. There were nine participants who were only saving in order to build or improve their house, and a further three who wanted to rather have property to sustain them in their old age than a retirement fund. One participant's priority was to own as many cattle as possible which would help sustain him in his retirement. The feeling of having something tangible that they owned provided a far greater sense of security than a non-tangible saving or investment account that sat with a financial institution.

> *"Only I try to make something at home so that I know that when I retire that it will be making new money, then maybe I can just save up to the time I retire. So if it is something like a house then it stays longer."* (Participant 5)

> *"Hm, no I haven't thought about it* (saving for retirement). *But I would like to save for something big like a home. Like for now I don't have a home to stay with my children. So, I would like to work to save something like a house."* (Participant 24)

Heuristics

Making financial decisions is a complex process. The majority of the participants concurred when commenting on how they tried to balance present day spending with long-term saving. This conundrum was made even more complicated by the relatively low levels of financial literacy illustrated by the average participant. In order to not fall idle there were several examples of rules of thumbs or rough calculations performed to allow for some form of action. Although not necessarily optimal, they were generally performed with a sense of confidence and conviction.

> *"I don't know. My answer is no. When I want to do something, I just go for it. I tell myself right now if I want to save R2, R2 every month, I tell myself I need to save R2, R2 every month it's like that. I've never sat down and draw a budget or something like that. It's something that I'm not clear about it."* (Participant 29)

The most obvious forms of creating simplifications was the manner in which participants defined the correct amount to save each month. Over 80% of the participants who saved monthly, individually or with a stokvel, made use of round numbers instead of trying to work out an exact amount that made logical sense for them to save. These amounts were generally R500, R1 000 or R2 000. The remaining participants would instead work off a rough percentage of their salary to be saved – either a quarter or 20%.

> *"It's like when I decide to save R500 I stick onto that, because before I decide that if I can maybe do more, maybe I will just suffer for something else. Like food or my transport or my son's transport. So, when I said R500 I said it to save that R500. It's like that, I can't go more."* (Participant 29)

Where participants had their employers saving on their behalf, they were satisfied to take the default amount suggested by the employer instead of calculating and requesting the most optimal amount for them to save. Every single participant who was questioned as to how they came up with their correct amount to save was unable to provide a considered answer.

> *"No, that one everyone they just take the same amount. As long as you work under that company as an employee they just deduct that money. R310 every month."* (Participant 12)

> *"It is a default amount (the amount saved by employer)… I am not sure to be honest (how it was worked out)."* (Participant 31)

This same simplification was observed with the participants who were able to save for retirement. None had ever tried to work out how much they would need to save or how much what they were saving was likely to provide them in retirement. The general approach was to just try and save something for retirement and at least they had something no matter what it ended up being.

> *"Yes, it depends on how long I have been saving and that will depend how big my saving is."* (Participant 12)

Peer Effect

Community was an important part of the lives of many of the participants. It provided a strong driver of saving through the community-based saving structures such as the stokvel. The success of these group saving initiatives was the motivation that they provide to the individuals. This was as a result of the group of peers all committing to each other and the group cause, while instilling a sense of positive comradery and collective discipline. Beyond the saving aspect, these groups doubled-up as a support network, proving advice, encouragement and sometimes even financial support.

> *"Ya, it helps. Because on your own it is very hard, I promise you. Because if anything comes up you just have to put that money into the family funeral. But if there is that group then you know that you will have to do it. You must."* (Participant 16)

This group dynamic resulted in all members saving in the same manner, even though the respective individuals have varying salaries and financial commitments. Each group would collectively agree on the amount to be saved each month as well as the terms of withdrawing or changing saving amounts. Generally, the individuals would join a group where they are similar to the average member, however this does not always match up perfectly.

> *"Because we do like the same job so our salaries are almost the same. So, we can't save more than that."* (Participant 10)

> *"We all got together and we just decided that was the right amount for all of us."* (Participant 1)

These groups, along with other friends or family members, were also the leading way in which the participants sought out financial advice. This approach was five times as popular as the approach of the three participants who had actively sought out financial advice from someone qualified to provide it. This reliance on community, friends and family for advice created pockets of groups all saving the same way, often in a suboptimal manner as a result of the relatively low financial literacy.

> *"Ah, when it comes to finances, I would say - one of my friends, she lives far but she is very smart. When you tell her your problems she also comes back with the best answers. She is the one I talk to when I have very serious problems and she tells me what to do."* (Participant 19)

> *"Yes, we do talk about it, that we need to save. Some of them they use the 32 days. We talk about that, but sometimes it is difficult, but we want to try."* (Participant 25)

There was a small contingent of five participants who were sceptical of dealing with, or receiving advice from, friends or members of their direct community. The majority of these had stemmed from negative experiences where community-based saving had fallen through, turned out to be a scam or they had received negative advice. However, these five participants were, in fact, some of the poorest savers as a result of not having the same type of motivation that these groups provide.

> *"No, I've burnt my fingers way too many times getting advice from friends!"* (Participant 17)

> *"You know, human beings are not trustworthy. Like, at the bank. The bank, they follow what we agree. But, human beings, someone will run away, as the treasurer, they will run away with that money. Just disappear with all the money. And then you start with zero."* (Participant 12)

<u>Summary of Findings</u>

These findings show a strong indication that the participants interviewed also illustrate irrational decision-making and behaviour when it comes to their approach to saving. Their low financial literacy levels limit their cognitive capability while the majority struggled with self-control issues or a sense of complacency. There was a strong sense of fear around moving backwards in life which encouraged simplifications and rules of thumb to drive at least some form of saving. All the while, the source of advice and benchmarking generally came from unqualified sources. However, within each of these irrationalities, there were examples of individuals who were able to create some form of negating or minimising approach for that irrationality which provided for potential learnings that could be applied to the other participants.

Results: Research Question 2

What do South Africans attribute to their personal gap between desired and actual saving behaviour?

Introduction:

South Africa epitomises the challenges faced by developing African countries. Vast unemployment, poor education, high crime rates, populism, a volatile currency and a struggling GDP. Moreover, given the oppressive history of the country, there remains huge inequality and a paradoxical dynamic of world class financial services that originated for the elite and a predominantly impoverished population with low financial literacy. This section seeks to understand the first-hand explanations by the participants as to why they believe their saving rate is below what they would ideally like it to be. This will be presented by unpacking the six overarching themes that emerged through the coding process and will illustrate both the struggles as well as where there had been some success.

Unfulfilled ambition

It was easily apparent when listening to all of the participants, particularly the younger set, that there was an optimism and hopefulness for growth, improvement and a more prosperous future. There was a shared ambition to try and improve their lives from those lived by their parents and to provide for a better life for their children than what they had been afforded.

> *"We all want a good life don't we – so if you don't save money then it means that you won't have what you want. Because I believe that we all have dreams, so in order to have that dream you have to make good decisions and then you achieve them."* (Participant 28)

The objectives set across the participants were generally in terms of their living situation, the quality of education, or starting their own business. Although there were stories of moderate improvement, all participants felt they were falling short of their ultimate objective. Six participants were proactively taking steps to earn a second income in an attempt to improve their chance of fulfilling their ambition, while 11 where investing in long-term targets.

> *"So money could help me to maybe go to college, or do nursing or something like that."* (Participant 3)

> *"Another thing to boost this little money I was supposed to open maybe a business in the location. You see, for example, I've got this idea to run chickens. You see, small chicks, to grow to sell them. To make a business so that I can boost the little bit that I make each month."* (Participant 9)

It was a common acknowledgement by the participants that money would be the ultimate enabler of their goals and ambitions. In the same breath, the majority also sighted money as their greatest barrier. This realisation drove much of the promising examples of saving behaviour, but left the majority of the participants frustrated by their inability to save as a result of the limitations and challenges that they faced.

> *"But sometimes, you know, for me I want a long-term investment. Because this one is a short term investment. So you find that you save from January until November, because we get our money this month (December) then you find that we spend all that money this month. I feel like I am saving, but it is not enough. I need a long-term saving."* (Participant 8)

> *"For the little that I have what can I do? It is hard, there are months that you feel like really, do I have to wake up in the morning to go and work for the money that will come into my account tonight, and by the morning it is zero. We are living from hand to mouth on a daily basis."* (Participant 11)

<u>Financial Constraints</u>

When discussing with the participants why they are struggling to save, the most immediate response was overwhelmingly the financial limitations that they face. Quite simply, the salary that they receive is too low to cover their array of immediate costs and still allow for extra to be saved. There was a general pessimism around the possibility of their salary being noticeably increased, and two participants were struggling as they were not employed for all five days of the week. When asked about managing costs there were multiple constraining factors suggested.

> *"Ya, sometimes you don't even have that amount to save. Because you have transport, because you see when I am coming to this place I am using two taxis just to travel. Almost a single trip I am using R30. And food also, it is expensive, you see. And on the other side, education for the kids – it is expensive. Truly speaking you are struggling to save."* (Participant 9)

Nineteen of the participants owed much of their struggle to being the only member in their household earning a salary which needed to help support several family members. Twenty-six of the participants had to support their children, whose ages ranged from two to six, and three of them also had other people's children that they had to support as well. There is a term coined in South Africa as 'black tax', which refers to having to support your parents once they are retired. Ten participants confirmed that this added additional pressure to their financial standing. There is a further African custom where funerals hold a huge amount of importance and no expense is spared to honour a relative. This custom was a burden on at least seven participants who were expected to help fund a commendable funeral for a deceased relative.

> *"It is so hard for me to save because I'm the breadwinner at home and all the money that I get from my work I have to take care of my son and my family, and transport. It's like everything is on me, so with this money that I get, it's hard for me to save because I just use it at once and it finishes at once. It's like every month I know that I still have that same amount that's going to do these things. I haven't saved ever since I started working."* (Participant 27)

> *"Yes, you know black tax, so we have like a huge family. It is not just the four of us. We have mother in laws, and the whole family (to support)."* (Participant 16)

Another issue that affected several of the participations was debt repayments which they were struggling to meet. Four participants raised their repayment obligations as a major factor as to why they could not save, while two other participants mentioned that several of their friends had managed to get themselves into problems with debt.

> *"Yes, because I've grown up in an environment where I see what debt does to people. It just accumulates and accumulates and then you end up living out of your*

> *pocket. Or you end up paying someone else your salary, so you're basically working for nothing."* (Participant 26)

Finally, the rising prices of basic products and transport, such as taxi fares and groceries, were raised as further constraints against the ability to save.

Financial knowledge

The majority of the participants were also limited by their own financial literacy. Out of all the participants, only 11 were able to provide a base-line appreciation of what interest is, while four were able to provide a definition for inflation. There was only one participant who seemed capable of working out the mathematics behind the percentages she received from the bank as interest. None of the participants had been able to work out how much they would need to try and save up for retirement, even though four participants had said that they had tried to think about how to work it out. Moreover, as mentioned in earlier, much of the financial advice received by the participants came from unqualified sources.

> *"I do, especially on TV and radio I hear about it (inflation) which means the rand is maybe higher than the dollar or it is higher than the what - even if I don't have formal information."* (Participant 20)

> *"I would need a lot (saved up for retirement), how would I survive if I age, because I don't have anything that I have planned for the future. It will be very difficult being that grey like this and still looking for work, it is not nice at all. I wish that I maybe I will have more money."* (Participant 18)

There was also substantial misunderstanding around financial service providers and their products. Sixteen of the participants confessed that they found the banks confusing and were overwhelmed when trying to deal with them. As an indictment to the banks, there were also seven participants who found the banks were unfair and were taking advantage of people. Two participants did not even know what product they were saving into while many found the fees particularly confusing.

> *"Yes, sometimes they've got charges which people who are poor are getting which they must be keeping – so maybe when you draw your money a certain amount charges or maybe the next day you can put your money in your fixed account for such a time, but you find that only a little is put there by the bank and they made*

more profit, so maybe they have used your money and created more profit but they just put a little bit. That one is not fair." (Participant 5)

In order to try and overcome these limitations, participants would often take the easiest option available or would make decisions using limited information. Seven participants took the default saving option at their bank without doing any form of research as to other options available, while eight participants just followed what their friends were doing. Moreover, the type of mental accounting illustrated in decision-making was highly simplified and a general approach of trying something and just hoping for the best was a common strategy.

"Ah, I never have the time for that (researching saving options)." (Participant 12)

"No, I just use the one the bank gives to me (instead of searching for the best saving option)." (Participant 1)

Discipline

Individual discipline was a noticeable flaw for many of the participants. A small number who were struggling to save were oblivious of their own pitfalls and purely blamed external factors, whereas the majority illustrated a degree of awareness of their own shortcomings. Most participants had no form of budget that they had created, whilst five of the participants confessed to having a budget but were unable to follow it. Moreover, nine participants waited until the end of the month and saw what was leftover instead of trying to save a certain target.

"The fact that the failure is from the budget. That is why my schedule of life saving it is quite hard to stick to it because I don't budget. Months that are not right I just forget about." (Participant 11)

Even when there were some savings, the temptation to take money out was often too strong, resulting in savings being used within, or just after, the month it was put away. There were seven participants who had managed to spend all of their savings and were having to start again from nothing. Similarly, two participants had cashed in their employer-managed retirement savings when they changed jobs and spent it all. Three participants outright stopped trying to save at the bank because they would just take out the money.

"Ya, we've tried (to save). But we failed, failed dismally." (Participant 16)

> *"I did get another bank account which was market linked. But I found that it is just like a normal banking, so when I battle then I will just withdraw that money."* (Participant 21)

Part of the issue facing several of the participants was the consumer culture and their desire for material objects. Three participants confessed to consistently failing to prioritise their needs over their wants. Two participants labelled themselves 'shopaholics', because of their addiction to shopping, and suggested that they have friends that are even worse. One participant also commented on his friend's mistake of buying a car that he could not actually afford. The other issue that arose out of this consumption-lead culture was the ease of access to debt. Three participants flagged their debt repayments as the dominant reason why they could not save.

> *"Because there are things that you like and things that you need. So if I can cut, maybe, the things that I like and then concentrate to the needs."* (Participant 9)

> *"Exactly, yes, like I am so addicted to clothes, I love clothes."* (Participant 28)

There was a noticeable reliance on external parties to try and work around individual discipline issues. This highlighted how stokvels became such a critical component of driving some form of saving. As the group communally develops the rules of engagement, amounts and terms, each individual feels peer-pressure to closely comply. This is also true of the retailer stokvels. However, the added benefit is that the participant is restricted to only spending the saved amount at the grocery store, generally on essentials instead of materialistic items.

> *"But you had to have that R1000 because that stokvel, gives you that discipline each month that the money must go into the account. And so in that way, being in a stokvel makes you disciplined. Because if you are on your own then you can say that you can do it next month. And then you end up not doing."* (Participant 16)

Eight participants were reliant on their employers to manage their savings on their behalf. This came in the form of company retirement funds or informal saving by the participant's boss on their behalf.

However, there was a shortlist of participants who were able to create self-developed rules to aid them in their individual saving endeavours. The most successful was the development of saving targets and ensuring that the amount came off automatically into a separate saving account at the bank straight after receiving their salary. The separation of the savings seemed to help create a mental barrier, whilst eight of the participants made use of 32 Day Notice accounts, or other saving products with withdrawal restrictions, that placed pre-defined conditions and limitations on the withdrawal of the savings.

> *"Even though I don't understand 100% how it works, but what is good for me is that I have taken my money away from me. Which means at the same time that I'm a hazard to my money. So as long as my money is away, that gives me peace of mind."* (Participant 20)

> *"I would like to save for myself, and then when I want it then I have to report it, maybe 32 days before I take it. I think that is the best because even if something comes up you end up not taking it."* (Participant 25)

There were several more resourceful strategies used by some of the participants to aid their discipline issues. Five participants developed lists at the beginning of the year which helped them prioritise what was most important to save towards. Two participants saved up to pay for the full years school fees upfront so that they did not misspend that money at a later stage. Another strategy by one participant was to pretend that her bonus did not exist and save that amount, while a different two had a similar approach and saved any additional income earned through odd jobs. Four participants also actively refused to find out how much they had saved so that they would never be tempted to use some of it.

> *"Ya, it is like I've dug a deep hole and I've put it there and I will see at the end of the year. And then there is nothing that tempts me to go there because I know that I won't get it."* (Participant 20)

> *"So what I normally do is at the beginning of the year I plan what I need to do for the year, so for an instance, last year I told myself that I want to go back to studying. So now I have the money for studying and I don't have to go back to ask anyone to help with payments with my stuff. I write it down and then I do exactly as I promise myself I would do."* (Participant 28)

Psychological safety

The general consensus around those that did save was that it helped them to feel safer knowing that there was some money to fall back on if any emergencies were to arise. Similarly, those who were not saving displayed concern as to what they would do if anything unforeseen was to happen. Given the difficulties that most of the participants faced on a daily basis, most of whom had several family members reliant on their salary, there was certainly an alleviation of stress for those able to have some savings.

> *"You have to save, because other people are suffering. We thought, money without you can't do anything now a days, so you have to save the money."* (Participant 4)

The most common form of saving that aided with improving psychological safety was various forms of precautionary saving. These were saved for an array of emergencies, most commonly for if the participant, or one of their direct family members, became sick or passed away. Less commonly mentioned was saving for if they became unemployed for a period of time or if something happened to their property.

> *"I thought about it, but only now as I realise that I am not getting younger, and I think that I have to save in case anything happens to me then I know that my family would be able to bury me or take me to the hospital."* (Participant 3)

Interestingly, there was also a strong motivation among the participants to have savings in place to be used to provide a better life for their children. When they had been able to financially plan for schooling or further education, as a result of their drive to uplift the standard of life for their children, they displayed a form of psychological safety. This came from the knowledge that they were doing the right thing for the children and their children would have a better life than they had. Part of the motivation for the seven participants who were managing to save something for retirement was that they would be less of a burden on their children and thus were empowering the children to build a better life.

> *"Like you know, you don't want to work for the rest of your life, that's the first thing. You know as you get older, and you married, and you get kids. So if you can save enough money for your kids - like I'm preparing for the future. So that's why I'm saving and decided to have this account, so that I can have enough money to provide for the kids and all that."* (Participant 19)

> *"That one (long-term saving) I never think about it, because it is like a security. Even today if something happens here I know my family will be benefiting something from what I have been doing. So it's not like I will just be buried and then it is all over, you see."* (Participant 12)

Mistrust of Saving Platforms

There was a sense of frustration from many of the participants who saved because of their mistrust towards the systems in place for saving. Five of the participants who did not save claimed their mistrust was part of the reason that they were not saving. Part of this mistrust may be a result of their low financial literacy and a misunderstanding of how saving, investment and financial systems work. However, many of the participants had negative experiences, or had heard stories from friends of negative experiences, which formed the key driver of their mistrust.

The banks were the most noticeable recipients of this mistrust. Over half of the participants mentioned that they found the banks confusing and overwhelming in the way that they structured and communicated their products. A further seven believed that banks are unfair, while one participant claimed that banks take advantage of people like her because she is not educated. Most of these participants had stories where they felt the banks were unclear about their fees, or broke promises as to how much interest the participant would be receiving. One participant went as far as closing her bank account and only dealing in cash because she felt the bank kept taking too much.

> *"No, not really (easy to understand the banks). What can I say, because even sometimes when you explain to me I say yes because the way you calculate things and all of that I can't understand. But I have no choice, I need to bank my money."* (Participant 18)

> *"For me it is still complicated, I don't know whether it is the age, because sometimes I have to take it to Tshepo (son) to explain these kind of things. He is the only one to explain, mom don't do this or this costs a lot, rather do like this. I find that they do not make it that easy for us people who are not educated."* (Participant 21)

There were similar reservations in the stokvel system from eight of the participants. The main concern was that most stokvels are run informally in the community and that people can be untrustworthy. Four participants were concerned as there was nothing stopping people from stealing the money and three of those participants were able to provide a story of when that had happened to someone they knew. There was also a concern by two participants that members could just fall through and in doing so break the system, while one other participant believed that people in his stokvel were keeping the interest for themselves.

> *"That is why decided not to (save with a stokvel). Because I saw it from one of my colleagues. It was with someone in Alexandra, and they just disappear (with the money)."* (Participant 12)

As a result of this mistrust, and possibly the lack of financial knowledge, the priority for many of the participants was to own tangible assets instead of saving. In this way they had something they physically owned and could see instead of having money put away in a system they were unsure about. For 11 participants, their priority was to own, build or improve their house. The only reason they were temporarily saving was to achieve this objective. Besides helping to improve their and their family's living standard, they preferred the idea of having something physical which could provide returns through rental and was more difficult to be stolen. Other participants mentioned getting other assets that could provide a return such as cattle, a sowing machine, land for farming or a bakkie (utility vehicle).

> *"Only I try to make something at home so that I know that when I retire that it will be making new money, then maybe I can just save up to the time I retire. So if it is something like a house then it stays longer."* (Participant 5)

> *"Ah, sometimes I am thinking about, if I've got the money and I want to save then I am getting a cow, a goat, a donkey because I know that is my bank, and then I am saving in my bank."* (Participant 15)

<u>Summary of Findings</u>

The difficulties to save in the South African context was well illustrated in the group of participants from this study. However, this was not from a lack of desire or effort to save. Across the board the participants appreciated why it is good to save and believed they would be better off if they were able to save more sufficiently. Yet, their financial constraints of low salaries and high costs made it especially challenging to adequately budget, especially for those who had multiple family members reliant on their salary. Moreover, for the most of it, the participants were also limited by their own financial literacy and knowledge about saving, exacerbated by sub-ideal advice from friends, and oversimplifications in how they considered their finances.

As much as the participants appreciated the sense of security that saving is able to provide for them and their children, many struggled with the discipline of habitually saving. Many struggled to follow their budgets or hit targets, and several had spent all the money that they had previously saved. Those that were making some progress found themselves reliant on external parties or on self-developed rules to force them to save. A further factor was the lack of trust displayed by many of the participants towards both banks and the stokvel system resulting in a prioritisation of tangible assets instead of saving.

Results: Research Question 3

> Could the behavioural economic principles utilised in the 'Save More Tomorrow' programme have the same positive effect on saving behaviour in the South African context?

Introduction

Thaler and Benartzi were able to mitigate against the irrationalities of human beings in their decision-making around saving through underpinning the design of the 'Save More Tomorrow' programme in behavioural economic theory. They were even able to take advantage of some of those irrationalities to help individuals to improve their saving behaviour. Although individually complex in nature, there were three key design elements that they used to drive the success of the programme: financial education; automatic enrolment; and pre-committed increases. This section will review the data collected from interviewing the participants to understand if the same design elements may have the same positive effect on their saving behaviour.

Financial Education

As has been revealed in previous sections, the average financial literacy of the participants was limited. For the most part, they struggled with the concepts of interest and inflation while none of the participants were capable of working out how much they should be saving, especially for their retirement. As a result, their lack of financial knowledge was a limiting factor to their ability to make economically astute choices as to how they went about saving.

"Retirement is a big thing, and you need to start saving for it. But when do you start saving for it? When do you realise that now is the time? Is it too soon? Is it too early? So I'm not really sure, I haven't been thinking about that." (Participant 26)

In order to make financial decisions, the majority of participants would make use of heuristics or shortcuts on their calculation process. Occasionally they would not even try to work out the mathematics behind their decision and rather just hope for the best. Moreover, it was common that the participants would resort to creating tricks or rough rules in order to force themselves to make some degree of saving.

"Yes, it does worry me a bit, but I just pretend. Let me not worry let me just trust." (Participant 21)

Similarly, the bulk of financial advice received by the participants was through friends or family who would typically have a similar level of financial knowledge. Alternatively, nine participants had never sought out advice and merely managed their finances as best as they knew how. Every participant who was asked if they thought it would be beneficial to speak to an expert agreed that it would be and as many as 12 suggested that they would like to try and find a financial expert to get some better advice.

"No, if I can get someone that could guide me a bit on that then maybe, you see it would be easier for me." (Participant 6)

"Ah, right now just everyone does what you think about, yes. But you know, mostly us as blacks we have a problem of – we need financial advisors mostly." (Participant 8)

"Ah, I did not even have that idea that I should go and find someone to give me some advice. But since you told me I am going to try make it." (Participant 12)

As the first step of the 'Save More Tomorrow' programme, having qualified financial advice and planning guidance would certainly aid the participants in their understanding of saving and its importance. Similarly, most of them would stand to gain a far clearer plan as to how they should go about saving through having someone else assist them with defining the requirements in their saving lifecycle. It can be relatively safely assumed that this first step would have a positive influence, especially considering the general openness of the participants to receiving expert financial advice.

Automatic Enrolment

The influence of status quo bias was apparent across the majority of participants. From the participants who were asked about how often they review or rethink the way they saved, there was not a single individual who had reconsidered their saving approach in the past few years. Once they had identified how they would like to save they continued in that manner indefinitely. Three participants even explained how, if their financial condition had to suddenly change, they would still keep saving in the same way.

Similarly, many participants who said that they did want to save ended up procrastinating making any change. Several claimed that they wanted to save but would only start when they were earning more, had finished upgrading their house, or once their children had moved out of home. As a result of this status quo bias and procrastination it became very difficult for these participants to make a positive change to their behaviour, even though they had said they would like to.

> *"Ah, for now. No, for now no (saving). As long as I am still renovating my house here at home because I have a one bedroom home. Then I can, after that then maybe I can mind a bit of what I might need for retirement."* (Participant 8)

> *"I think if I could get one more day, so then it will be five days, then that would be a different situation. Maybe, the way I'm saving I will put much more. Or maybe, that one day I will just save that for retirement. So it will depend."* (Participant 20)

Moreover, the simplicity and transparency of the design of the programme is a critical enabler. As mentioned, 16 of the participants found the banks confusing or overwhelming while seven believed they were unfair. Therefore, if any programme was going to be allowed to introduce automatic enrolment it would need to work hard to overcome these sentiments of mistrust and lack of clarity.

> *"Like they (the banks) show you the bigger print – but transparent, they are not transparent. If you don't ask questions, if you don't go equipped knowing exactly what you want you won't get what is on top, or what you want to hear."* (Participant 16)

It was also noticeable thatthe three participants who had some form of retirement saving through their employer had done so because it is an automatic requirement. Alternatively, a different three participants had the option to take up a company-managed retirement saving and only one of them had gone through with it – mentioning that she thinks most people do not take the company up on the programme. Based off this sample, it is easy to see how automatic enrolment would be an efficient tool in getting individuals to commit to monthly saving as well as maintain that improved saving behaviour.

> *"Ya, so I know that I am one of the few apprentice teachers who have taken out the retirement annuity option. I know most of them haven't because it is just too much of a chunk of your salary which is taken out."* (Participant 31)

<u>Pre-committed Increases.</u>

As elaborated on earlier, most participants struggled with issues of self-control. All the participants mentioned that they would want to save more, but often struggled with the self-restraint to follow through on that ambition. This was noticeable in their struggle to increase the amount that they would save each year, as indicated by there only being five participants who were successfully increasing the amount they saved year-on-year.

> *"I don't think it increases."* (Participant 13) {When asked if he increases saving amount}

All of the participants could list legitimate constraints as to why they could not increase their savings. Often their annual increase was below inflation, some had up to seven family members dependent on their salary, while many experienced various forms of unexpected costs such as damages to their house or assisting to pay for funerals. Moreover, as most of the participants were striving to uplift their living standards, there was a tendency to prioritise upgrades to their house or new clothes over saving more.

> *"But then if you get an increase you also want to improve your living standard. So then your costs will become a bit more, so it is a balancing act I guess."* (Participant 20)

There was also a legitimate concern, displayed by 80% of the participants who were asked, that they would need the money after putting it away into savings. This form of loss aversion prohibited the individuals from wanting to lose immediate control of their money and rather preferred having it close at hand in case they suddenly needed it. Increasing the amount they saved would further aggravate the feeling of loss as they would then have less money directly on-hand if anything did occur. Taking the design element of having these increases only occur when the participant's salary increased could certainly help to alleviate this concern.

> *"Sure, it is hard, because you get these cents, then it is hard to put it there. But if it is in the bank then it easy to take it."* (Participant 4)

> *"No, my friends are, because some of them are deducting saving they were talking negatively about it. See, they are not enjoying saving, they say 'I need the money, I am not enjoying it' or something like that."* (Participant 12)

Many participants illustrated their desire for external controls to assist them in improving their saving behaviour, given their ambition to try and save. Several took advantage of saving products which restricted their ability to withdraw the money and pre-committed to debit orders that would automatically transfer money into a saving product. Stokvels also served as a positive pre-commitment mechanism that would drive a more promising saving behaviour.

> *"I think because it is too tempting to have that extra cash when it is such a small salary, where as if it is just taking off automatically it is less tempting."* (Participant 31)

The displayed lack of self-control and prohibiting nature of individual's loss aversion constrained the majority of participants in implementing adequate saving behaviours. As a result, there was an apparent openness to utilising external controls to assist with overcoming these limitations. Unfortunately, most available forms of external motivation lacked the right type of mechanism to encourage a year-on-year increase in saving. A built-in saving design element to encourage a pre-commitment to increasing saving each year could, if framed correctly, have a real positive impact on the long-term saving success of the participants.

Summary of Findings

Across the participants there was an ambition to save more along with an appreciation of the benefits of saving. However, there are several very real constraints that prohibited them from adequately saving – or saving at all. All participants were limited in their financial knowledge, compounded by a lack of qualified advice on how to manage their finances. Any form of financial training and planning would go a long way in aiding their ability to save and to appropriately plan how. Judging from the responses, most of the participants would be very keen to be provided with this form of assistance.

Most participants confessed that they were stuck in their ways and struggled to make the correct behaviour change to their saving, even though they would like to. This type of status quo bias or procrastination makes it difficult for any form of external recommendations to drive positive change, thus making it necessary to provide more radical drivers of change, such as automatic enrolment. The participant's existing reliance on external factors to help them change their behaviour should make them comfortable to such a mechanism. Additionally, the same status quo bias should also encourage them to stay in the programme once enrolled.

A similar argument can be made for encouraging pre-committed increases to their savings. Although most participants are reliant on external structures to drive positive saving behaviour, they lack the right mechanisms to drive year-on-year increases in saving. Moreover, participants illustrated a sense of loss aversion when it comes to increasing their saving as it would reduce their disposable income. Utilising an approach that encouraged a pre-commitment to increased saving, occurring after a salary increase, would certainly bolster the likeliness of increasing the saving rate.

Conclusion

The process of analysing the data gained through the 31 semi-structured interviews provided far greater insights into the decision-making process and saving behaviour of the participants. Through the selection of a variety of job types, gender and backgrounds, the qualitative study was able to provide for a deeper view of the low-to-middle income earners based in South Africa's economic hub of Johannesburg.

An assessment of whether the participants were inflicted in the same manner by the irrationalities and biases identified in Western-based behavioural economic studies was possible by developing the research instrument through behavioural economic theory. In doing so, it was revealed that there was a close similarity in how the participants were constrained in their saving behaviour as predicted by typical behavioural economic theory.

However, the extent of the irrationalities or biases tended to be heightened as a result of various constraints and limitations that faced the participants on a daily basis. In general, the level of financial literacy was particularly poor making it difficult to manage the limited monthly salaries and plethora of costs that faced the participants. There was added strain as a result of the number of family members, both children and parents, reliant on that salary and a noticeable scepticism for saving structures such as the banks or stokvels which reduced the willingness to save. Most participants struggled with managing their own self-discipline to save even though they appreciated the safety net it would provide, as well as its potential to help them achieve unfulfilled ambitions and goals. Those that were able to overcome these challenges found themselves reliant on external bodies such as banks, stokvels or their employer to drive their saving behaviour, with some resorting to self-set rules to help build the habit of saving.

Through including probing questions around the sort of design elements seen in the 'Save More Tomorrow' programme, it was apparent that similar interventions would show promise in improving the saving behaviour of the participants. Certainly, the first step of providing financial education and individual planning would reduce the cognitive limitations displayed by the participants as well as their reliance on heuristics and simplifications. Similarly, the status quo bias and procrastination displayed by many of the participants may well be broken through automatic enrolment. Given the participants unwillingness to change their saving approach, once they are enrolled they should then remain enrolled. Moreover, the participants illustrated a willingness to allow external structures to help lead their saving behaviour, however they generally resorted to the approach that minimised their feeling of loss aversion. Encouraging participants to pre-commit to increasing their saving, only when they receive an increase in salary, would certainly help drive a long-term increase in the individuals' saving rate.

DISCUSSION OF THE RESULTS

Introduction

Through the deeper understanding of the above results provided by the participants, this chapter will compare and contrast those findings with the existing literature. Analysing the corroborations, similarities and differences between the results and the literature will allow for the expansion on the theoretical understanding of how behavioural economics can be used in a developing country, such as South Africa, to increase the saving rate. Each of the three research questions will be individually interrogated in this manner and ultimately consolidated into the dominant outtakes that will provide for the final recommendations in the conclusion.

Discussion of Results: Research Question 1

> Do South Africans display the same decision-making irrationalities as illustrated in Western behavioural economic research?

<u>Introduction</u>

The original forms of economic theory were based on the limited view that human beings are rational, self-interested beings capable of consistently making the most optimal decision (Yamagishi et al., 2014). However, this view did not take into consideration the limitations and irrationalities that human beings face when making decisions. Unfortunately, human beings do not have the requisite cognitive capability, time or access to information to be able to make the most optimal decision. They therefore become reliant on heuristics, shortcuts, personal biases and often irrational thought processes in order to reach some form of decision (Hilbert, 2012).

Through a deeper understanding of this more realistic view of human beings, behavioural economists have been able to develop a range of theories to try and help explain this sub-optimal decision-making process (Van Zyl & Van Zyl, 2016). These theories have provided for a foundation of knowledge to better understand the psychology behind these irrationalities and biases as well as provide a fuller description for the decision-making process. However, the bulk of this qualitative research has been undertaken by academics at Western-based universities whereas developing countries have been limited to more macroeconomic research that does not provide the same depth of understanding (Precious & Asrat, 2014).

It therefore becomes important to be able to test these theories in differing contexts such as the relatively unique dynamic of South Africa. Having been subjected to the oppressive nature of the apartheid regime, South Africa maintains many social, economic and political difficulties. With unemployment at 29%, the country is considered the most unequal in the world (Graven, 2014). Half the population lives in poverty while a dysfunctional education system makes it very difficult for individuals to improve their situation (Hurlbut, 2018) all of which makes it a unique context.

Bounded Rationality

The fundamental shift from traditional economic theory to behavioural economics is the realisation that human beings are limited in their cognitive ability. They are constrained in their own intellectual shortcomings, the shortage of time and the unavailability of all the required information (Ross, 2014). These restrictions on optimal decision-making were widely observed across the participants.

Certainly, one of the key constraints of the participants was their financial literacy shortcoming. Garcia (2013) identifies the overwhelming complexity of financial management and planning, especially considering the abundance of offerings, products and financial service providers. Likewise, the participants struggled with basic financial terminology and were unable to sufficiently calculate what the optimal amount was for them to save. Most of the participants found financial service providers confusing or overwhelming, partially as a result of their lack of understanding as to how they work.

This cognitive limitation is exacerbated in South Africa where the quality of education is far behind many other developing countries and 70% of educational institutions are considered dysfunctional (Spaull, 2015). Moreover, as illustrated by the participants, most South Africans are still inflicted by the oppressive history of the country. They experience a lack of resources, support and opportunity, placing greater strain on the individual. This in turn creates a heightened cognitive burden, further limiting their ability to think deliberately and make optimal decisions (Gabor & Brooks, 2017). This left most participants feeling overwhelmed, and in some cases, even helpless.

Self-Control

Thaler and Benartzi's (2004) proposition that everyone wants to save more concurs with the ambition illustrated by the participants. They have the desire to save more and appreciate the benefits that come with saving. However, they often cannot muster the self-control required to do it. This lack of willpower reduces the rational capability of an individual to make optimal decisions for their own long-term success (Thaler, 2017).

The idea of the two 'selves' in conflict was apparent across the participants. As per the literature, they struggled with containing the short-term self, prioritising immediate satisfaction over the long-term maximisation of reward for an extended period (Kool et al., 2013). This was particularly noticeable in their struggles with consumerism and the issues with debt which faced several participants driven by the aspirational culture identified by Precious and Asrat (2014). This lack of control limited the participant's ability to uplift their economic standing as predicted by Bernheim et al. (2015).

To overcome their own lack of self-control, many participants imposed self-developed rules to help them to save. This relates to Thaler and Shefrin's (1981) founding research that a powerful way to manage one's self-control is by modifying the short-term self's preferences and developing rules that minimise their own discretion. Such examples developed by the participants were to have separate accounts with limited withdrawal terms or pre-established debit orders straight after they receive their salary. Hsiaw's (2013) approach of goal setting was also successfully utilised by the participants who developed lists of what they want to save up to and work towards.

Status Quo Bias / Inertia

Many of the participants felt they were stuck in their current situation, unable to suggest ways they could change it or else not following through when they did have an idea. Behavioural economists equate this to the dominating tendency to maintain the status quo. This is as a result of the fear that the disadvantages of change will have a greater impact than the advantages (Etzioni, 2011).

This fear of regret has the ability to cause an individual to review the potentially inferior outcomes with a heightened set of criteria than they do for the potential upsides (Riella, & Teper, 2014). This fear seemed to be amplified by the oppressive past of the participants. All of the participants have had to build up their lives from an extremely difficult position and there is thus an elevated reluctance to ever move back to where they had come from.

From a financial perspective, this unwillingness to change could be seen by the participant's reluctance to change banks when they wanted to or to consider new saving approaches. Moreover, as discussed by Dean et al. (2017), many also chose the approach that was the status quo for most of their peers which causes groups of peers collectively to be saving in a suboptimal manner. Status quo bias may also be cause for the lack of enthusiasm to increase their saving amount year-on-year because they would not want to regret having less disposable income available, as suggested by Thaler and Benartzi (2004).

Loss Aversion & Endowment Effect

Loss aversion is a further bias displayed by human beings through their fear of potential negative consequences. As such, negative outcomes are considered to be more impactful with respect to their objective magnitude than positive outcomes (Poleman, 2012). This bias was observed in the considerations taken towards the participants ambitions. Many had unachieved goals because the fear of present loss outweighed the potential gains. Such examples were spending on further education or starting a new business. It has been estimated that losses hurt twice as much as gains provide pleasure, creating a powerful disincentive towards anything with risk (Laibson & List, 2015).

This was observed in the participants saving patterns as several refused to take advantage of the potential upside of using a stokvel because of the inherent risks involved. Similarly, there were three participants that renounced the upside of the banks as a result of the loss they experienced from banking fees.

This sensation is heightened when individuals attach additional value to items simply because they own the item (Marzilli et al., 2014). This was observed by several of the participant's prioritisation of physical assets, such as property or cattle. In the same manner, individuals attach additional value to money when they have direct ownership of it (Thaler & Benartzi, 2004). Several participants were reluctant to part with money into a saving vehicle as there was a sensation of loss when they no longer had the money directly on hand.

Heuristics

The participants all faced complex situations to try and manage. They had many people dependant on their salary, low job security and unexpected costs - all of which had to be managed on a relatively small salary and with low financial literacy. As predicted by Hilbert (2012), the boundless number of choices and potential outcomes that makes good decision-making so hard, reduces the individual to developing heuristics, rules of thumb, shortcuts or simplifications in order to reduce the cognitive effort into something more manageable.

For individuals to deal with the amount of information, their cognitive limitations and time constraints, they make use of heuristics to allow them to make some form of decision, even if it is not always optimal (Van Zyl & Van Zyl, 2016). This was illustrated by the participant's rough calculations, sub-optimal planning and 'gut-feel' approach to their saving endeavours. Conforming with Lee (2012), as a result of the participants' inability to work out the optimal outcome, they would reduce the outcomes by a satisficing, or close-enough, criteria. An extreme example of this was the general approach of the participant's retirement saving which, at best, included no calculations but rather a belief that at least something is better than nothing.

Many of the participants conformed to Thaler & Benartzi's (2007) observation that individuals over-simplify their decisions as to the percentage they save and the saving products they select. Over 80% of participants made use of round numbers or rough percentages as their saving amount instead of calculating the actual optimal amount. Similarly, they would generally take advantage of the most convenient saving product available at their existing bank instead of researching the best product for their specific needs.

Unfortunately, this approach leads to a variety of biases that effect decision-making (Hilbert, 2012). The participants were overly reliant on advice from equally unqualified peers and overvalued insights from previous experiences without having obtained all the relevant data. Similarly, there was also a general overconfidence displayed by individuals in their flawed decision-making approach (Van Zyl & Van Zyl, 2016). The majority of participants who were saving felt comfortable with their approach and would not consider changing it if their financial situation had to change.

Peer Effect

Given the participant's low financial literacy and the complexities of financial decision-making, the majority sought out advice from friends or family. The concern with this approach, as highlighted by Thaler and Benartzi (2007), is that these peers are usually perceived as more qualified or skilled than is the reality. Generally, the peers being consulted by the participants were also unqualified and unable to provide optimal advice.

This bias causes individuals to follow decisions of the majority, even where it is not necessarily the best for the individuals, resulting in pockets of peers saving in the same way (Van Zyl & Van Zyl, 2016). This was most apparent in the community-based saving stokvels where the group communally decides on the approach without tailoring to individuals' needs.

This process becomes a form of social learning as the individuals are more comfortable with going with what the majority are doing (Bursztyn et al., 2014). Compounding this 'herd mentality' is the tendency for individuals to self-select into groups where the members are most similar to them (Bursztyn et al., 2014). An example of this from the participants was the stokvel of only domestic workers or of friends who all lived or worked close to each other.

It is suggested that individuals do this as they would like to conform in order to feel a greater sense of belonging or because they do not want to be envious if their decision ends up being less optimal than that of the group (Lahno, & Serra-Garcia, 2015). The sense of belonging in the stokvels was an important factor for the participants who would also receive support and friendship out of these groups. This sense of community seemed to be a more important factor than the fear of envy.

Conclusion:

Behavioural economic theory has been positioned as universally applicable as the result of the principles being built on understanding the fundamentals of human behaviour and thought. However, opponents to this train of thought believe that social bonds and social norms are important influencers of behaviour and differ greatly across countries, cultures and communities (Etzioni, 2011). This section was able to illustrate that all six of the behavioural economic principles prioritised by Thaler for his 'Save More Tomorrow' programme were applicable to the participants interviewed.

The participants certainly shared the same sorts of biases and irrationalities as proposed in the literature. However, there were several contextual nuances that could be observed. For the most of it, the level of financial literacy was below most international benchmarks and certainly below what most of the predominantly Western behavioural economic research would have witnessed. As a result, there was an observed heightened bounded rationality coupled with the cognitive burden of poverty and hardship. This made participants even more susceptible to their lack of self-control and the status quo bias as well as more fearful of loss and moving back towards their oppressive past. Moreover, their trying context made them more reliant on heuristics and simplifications as well as more dependent on peers and their community for guidance and support. Not only were the irrationalities apparent in the participants, they were in fact elevated as a result of their social bonds and norms.

Discussion of Results: Research Question 2

> What do South Africans attribute to their personal gap between desired and actual saving behaviour?

<u>Introduction</u>

Inadequate saving is a global phenomenon with many negative consequences to individuals, business and the economy. The average saving rate across the world as a percentage of GDP has been on a steady decline over the past decade (World Bank, 2019b) and the majority of that decline has occurred as a result of the dropping household saving rate (Rhee & Boivie, 2015). Even developed countries like the United States of America display worrying trends, such as over 50% of their population having no form of retirement savings (Munnell et al., 2014).

In developing countries where the average person is poorer, less educated and suffers from greater gaps in financial literacy (Klapper et al., 2015) the saving rates are even worse. This can be particularly observed in South Africa where the legacy of colonial disenfranchisement left the majority of the population excluded from the mainstream economy (Zwane et al., 2016). As a result of this and various other factors, South Africa has one of the lowest household saving rates in the world (OECD, 2019a).

There has been much work to try and understand the determinants of this hazardously low saving-rate in South Africa. However, the majority of the literature has approached this research from a macroeconomic perspective (Zwane et al., 2016). Far less work has been compiled by qualitative studies to understand the constraints and barriers from a microeconomic point of view. The following section will discuss the six themes that occurred from this study's qualitative interviews in order to assess whether the findings correspond or differ from the macroeconomic-based literature available.

Unfulfilled ambition

Across the participant set was a hopefulness for their future to be more prosperous and for them to be able to provide a better life for their children than they had. Karlan et al. (2014) propose that saving has the potential to derive upward mobility, especially for individuals from poor backgrounds, which most of the participants concurred with. They appreciated that money, for the most of it, is the key enabler of improving their living standard and that saving is a crucial component facilitating that positive shift.

However, most of the participants felt disheartened by their lack of, or sluggish, forward momentum. Many had goals and ambitions that they had not been able to achieve. They struggled with the difficult balancing act of current consumption verse long-term planning as observed through Kool's et al. (2013) findings. Moreover, the participants' desire to materialistically illustrate to their peers that they were making progress, through the likes of clothes and cars, had a negative effect on their ability to invest in their long-term upward mobility.

Financial Constraints

Even more than two decades after the devastating and oppressive effect of the apartheid regime the majority of the South African population remain trapped by poverty. Over half of the country's population still lives below the poverty line and remain excluded from the resources, education and opportunity to change their circumstance (Hurlbut, 2018). This unfortunate situation haunted the majority of the participants and was a key constraint in their upward economic mobility.

Although most of the participants did not overtly blame this oppressive past, the literature still considers it a leading factor to the low levels of household income (Syden, 2014). The first explanation from the participants as to their inadequate levels, or lack, of saving was that their income was too low. This corroborates with the definitive findings that household savings are predominantly driven by the income growth rate (Mogale, Mukuddem-Petersen, Petersen & Meniago, 2013), especially for developing countries (Syden, 2014).

Beyond their salary, the participants were quick to note the array of costs that their inadequate salary had to cover. As observed by Zwane et al., (2016) the increased household size increases the burden on the household's salary and therefore the ability to save. To illustrate this strain on saving, over 80% of the participants had children to support, either theirs or relatives, and 30% had to support their parents as well.

Moreover, while the literature refers to more macroeconomic factors such as rising tax, low economic growth and real interest burdens (Precious & Asrat, 2014), there were several personal factors not commonly mentioned in the literature. Over 60% of participants were single income households with limited support, placing great pressure on them. Not only did they have the full responsibility of supporting their household, but the participants also mentioned several customs that added to their costs. Two mentioned examples were the expectation for substantial funerals to pay respect to deceased family members, and Labola, a payment made to the parents for their daughter's hand in marriage.

Counterintuitively, the issue of low salary and high costs is compounded by the advanced financial service system in South Africa. Conspicuous consumption is encouraged through easy access to credit facilities which negatively influences saving (Syden, 2014). Four of the participants trying to make ends meet or make it *seem* like they are doing well had listed debt repayments as their biggest barrier to saving.

Financial knowledge

South Africans' average academic ability has been highlighted in multiple international and national reports as one of the worst in the world (Roodt, 2018) and has been shown to adversely affect financial literacy levels (Nanziri & Leibbrandt, 2018). The financial literacy of the average participant was noticeably poor based off the top line assessment and certainly limited their capability to think critically about their financial management.

Most participants found the banks overwhelming, could not define inflation or interest and were unable to make financial calculations around retirement saving. This was concerning considering the correlation recorded between individuals' education status, financial literacy and household saving rate (Zwane et al., 2016). This could be observed by participants taking the most convenient option instead of the most optimal, resorting to the default instead of calculating the correct amount, and following advice from unqualified sources.

Moreover, it has been found that the liquidity constraints and low asset wealth facing the participants imposed a cognitive burden making it more difficult for them to think deliberately (Gabor & Brooks, 2017). There was a great pressure on most of the participants as a result of their precarious financial situation. Unfortunately, most participants were overconfident in their decision-making process and there were only a minority who were able to identify these limitations.

Discipline

Although several of the participants seemed oblivious to their own self-control issues, often blaming external factors, the majority appreciated that they struggled with managing their self-restraint. Participants who created a budget were not able to keep to it while there was a trend of spending all their savings even though they knew that it is good to hold onto some of it.

The literature predominately blames the aspirational culture in South Africa, arisen from the population's ambition to rise above the hardships previously faced (Precious & Asrat, 2014). This has led to a trend of consumption-focused spending and a tendency to purchase non-necessities in order to appear better off than other individuals (Syden, 2014). This observation was apparent among the participants, especially the younger segment, who confessed their tendency to purchase nice-to-haves when they should not have.

It has also been found that the extensive social grants system in South Africa, which has increased substantially over the past decade, develops a culture of dependence (Syden, 2014). Individuals know that if they become unemployed, or when they retire, they will be able to sustain themselves through the grants system, which inadvertently reduces the ambition to save (Precious & Asrat, 2014). However, the topic of social grants never arose from a single participant. This may be as a result of the negative perception of being reliant on the grant system or because they had not formally acknowledged that this form of crutch is available to them.

Considering most of the literature is from a macroeconomic perspective, there was far less South African specific commentary on the approaches used to help manage individual discipline. However, the powerful role of stokvels has been of popular interest as a result of the positive effect this community-based saving approach has had on saving culture (Van Wyk, 2017). What was particularly noticeable from the participants was the manner in which they would develop rules and constraints for themselves, much in the way identified by Kool et al. (2013). The predominant mechanism was to find external parties to take over responsibility for their saving. However, individual-based approaches observed were goal setting, providing control to external bodies, debit orders straight after receiving their salary and placing restrictions on withdrawals.

Psychological safety

Saving has been shown in the literature to have many positive attributes. It increases an individual's ability to meet both expected and unexpected financial burdens and improves living standards into retirement. However, a less mentioned attribute is the positive correlation between saving and subjective wellbeing, reducing financial stress and anxiety and thus improving psychological safety (Babiarz & Robb, 2014). This phenomenon was easily observed from the participants. There was a sense of relief and comfort by those who were able to save something while those without savings displayed discomfort and concern as to their future.

This form of precautionary saving has been reported as the most common motive across countries for saving, followed by retirement saving (Le Blanc et al., 2016). However, the participants showed an additional motivator through their ambition to provide a greater standard of life to their children than what they had. There was an added sensation of psychological security in the knowledge that they were saving to give their children a decent education or so that they would be less of a burden on their children when they retire.

Mistrust of Saving Platforms

South Africa has one of the most sophisticated financial services sectors on the continent allowing for a variety of choice for consumers (Amusa, 2014). However, most of these companies have evolved with the predominantly white, elite economic class at the expense of the majority of the previously disadvantaged population (Syden, 2014). As a result, there has developed a negative opinion of the banks, as displayed by the majority of the participants. Over half of the participants found banks overwhelming, while seven believed the banks to be unfair, particularly to the poor. However, this negative outlook of banks generally stemmed from bad experiences or from the participants misunderstanding how the financial service providers work.

Stokvels have been lauded by several academic reviews for the scale of saving the community-based vehicle has achieved (Van Wyk, 2017). However, just under a third of the participants spoke of their lack of faith in the system. Syden (2014) spoke to the issue of the informal nature of stokvels and that they do not provide an interest return. However, the participants were far more concerned of the possibility of stokvels scamming them, stealing their money or falling through.

Summary of findings

In relation to the available literature on saving there are many similarities to what was expressed by the participants. However, it was noticeable that the context of the participants created nuances that differed or gave deeper understanding to the expected findings. The driving force of this differentiation is as a result of the hardships faced by the participants during the oppressive apartheid era. This meant they generally all started from significantly low financial bases and still struggled with the limitations that years of oppression and poverty had placed on them. Moreover, the low average level of education and financial literacy was particularly constraining and there was lack of confidence in the saving systems.

However, there was an ambition shown by the participants to try and change their circumstances and, importantly, provide a better life for their children. In order to try and achieve this, and provide some form of psychological safety for their future, many attempted mechanisms to help them to save, generally in the form of externally created structures or self-developed rules. Unfortunately, as much as these approaches are helping, they are still a far cry from allowing the participants to realise their ambitions and save in an optimal manner.

Discussion of Results: Research Question 3

> Could the behavioural economic principles utilised in the 'Save More Tomorrow' programme have the same positive effect on saving behaviour in the South Africa context?

Introduction

Thaler and Benartzi firmly believed that the success of the 'Save More Tomorrow' programme was that it was designed around behavioural economic principles. These principles led them to the three key design elements of financial education, automatic enrolment and pre-committed increases. This section will interrogate the feedback from the study's participants against Thaler and Benartzi's feedback on the key design elements in order to determine whether the three key design elements would have the same positive effect in the South African context. Moreover, the section will conclude with two proposed additional design elements that incorporate insights from this study, which would better allow the programme to be tailored to the South African context.

Financial Education

Thaler and Benartzi identified the complexities of financial decision-making and planning, coupled with individuals' boundless rationality as a key constraint of saving. Although they believed that financial education on its own does little to sustainably change behaviour, they were able to illustrate through experimentation that when it was coupled with other design elements, those that received advice ended up saving a greater percentage (Thaler & Benartzi 2004). This draws parallels with other research that has been able to illustrate the correlation between financial literacy and saving rate (Zwane et al., 2016).

Financial literacy was one of the major factors constraining the participants from developing the correct saving behaviour and planning. It was mentioned multiple times that they believed receiving the correct advice would help them to save in a better manner as well as have an improved understanding of how much was the correct amount for them to save. Thaler & Benartzi's (2004) preferred approach was to make use of both financial education seminars as well as one-on-one meetings with a qualified financial planner. This allowed for both base line financial education as well as individual assistance and planning, both of which are important to be used together. Most participants appeared eager for this type of support, however they struggled as to from where and who they should seek out such advice. If saving platforms in South Africa were to use this approach it would make a substantial difference to the financial literacy gap and result in more optimal saving behaviour and decision-making.

Automatic Enrolment

Thaler & Benartzi (2004) identified that, in general, individuals will choose the default option available and, as a result of their status quo bias, they would remain with that option indefinitely. Automatic enrolment helps to break the complacency or procrastination of the status quo bias. It reframes the thought process by encouraging individuals to rather think of the loss of not having the amount saved in the future instead of the current loss of disposable income (West, 2012).

The participants showed positive signs that this mechanism would aid them in their saving. Six participants confessed to defaulting to the banks saving product instead of researching what was best for them. This illustrates their complacency and willingness to go with the default. Moreover, out of the three participants who had the option to take up their company-managed retirement fund, only one of them signed up and suggested that she thinks most people do not enrol. This further suggests that the predominant choice is to not take up the saving product if it is not the default option. Whereas, the three participants who were mandated to have a retirement saving with their company were happy that it was in place.

The automatic enrolment emboldens the thought process that 'this is what everyone is doing', providing a peer information intervention that encourages improved behaviour (Beshears et al., 2015). This framing helps to play into the peer effect, which asserts that individuals would like to conform as they believe that what the majority are doing is the safest (Lahno & Serra-Garcia, 2015). This effect was commonly observed by the participants who were reliant on the advice of their immediate community and who illustrated their willingness to follow the majorities approach in the stokvel set up.

In the design of the programme, Thaler and Benartzi (2004) reasoned that they needed to make it as simple as possible for individuals to enrol as they believed that once enrolled, individuals' status quo bias would encourage them to remain enrolled. This status quo bias was apparent with the participants who had decided on a manner of saving. The majority had not changed their way of saving over the past couple of years and indicated that the only change they would think about in the future would be to increase the amount. Once enrolled it can be assumed that they will also remain with the programme, all of which would result in greater saving behaviour.

<u>Pre-committed Increases</u>

Most of the participants illustrated a reluctance to increase their savings because of the negative effect this would have on the money they could take home. Thaler & Benartzi (2004) understood this as a form of loss aversion, where losses have been estimated to feel twice as painful as the pleasure received by gains (Laibson & List, 2015). To avert this, as well as status quo bias, Thaler & Benartzi (2004) encouraged participants to pre-commit to increase their savings only after they received an increase so that they never have to reduce their monthly take-home.

The general consensus from the participants was that the level of income was the greatest enabler of saving. However, as much as they claimed that when they earned more they would save more, their saving history indicated that this was not the case. As identified by Syden (2014), the aspirational culture in South Africa encouraged living beyond ones means. Allowing them to pre-commit would be able to play into their ambitions to save more in the future while eliminating the reservation of increasing their saving in the present.

<u>Defined Withdrawal Terms</u>

Having better understood the financial constraints of the participants it can be assessed that completely limiting the terms of the saving programme to long-term savings would be too daunting. Given their trying circumstances, there is a legitimate concern that if something unexpected occurred they would require cash to be available so that they do not have to take out debt. Moreover, the approach of saving up until the end of the year so that they can buy groceries in bulk and pay for school fees, has become so entrenched that it is now an important part of their financial management.

With this insight, it is proposed that the terms of saving platforms in South Africa should allow for some flexibility, while still maintaining the objective to improve long-term saving. Terms should be developed for certain key expenses that are agreed with the individual, such as, Labola, funerals or health issues. However, this should be capped in order to ensure that savings are never too heavily depleted. Similarly, there should be a function that allows for a predetermined percentage of the savings to be withdrawn at the end of the year for bulk grocery shopping and school fees.

Considering individuals’ aversion to changing from the status quo, it is important that the saving programme does not stray too far from the way in which individuals are already managing their finances. Similarly, this approach would limit the effects of loss aversion as the money does not become inaccessible for events that may worry the individuals. Most importantly, it still encourages the type of long-term saving that is so lacking yet so important in a South African context.

Partner Enabled

As noted in the literature, as well as by several participants, stokvels play an important role for saving in the low-to-middle income sector of South Africa. Not only is it a vehicle for saving, but it provides a community for support and a sense of belonging (Van Wyk, 2017). However, the issue with the system is that it is generally informally managed, does not provide interest to the members, and the saving cannot be utilised from a macroeconomic perspective for investment into growth providing assets (Syden, 2014). Moreover, as pointed out by the participants, there is much scope for scams and theft within the stokvel system and it does not provide for any long-term saving.

This situation provides significant opportunity to design saving products that incorporate the positive aspects of stokvels while minimising the downside. By reworking the design of saving instruments, financial service providers could allow for group-based saving into a formal and centrally run saving instrument. In maintaining the motivation and support from saving communally, the product will enable interest to be earned on the amount saved as well as greater auditing capability. Most importantly, there would also be pre-defined withdrawal terms that allow for a certain percent to be withdrawn by group members at the end of the year, but mandated that a significant portion needs to remain for long-term saving.

Enabling this approach would reduce the status quo bias of individuals as it will be more familiar to the manner in which they are already saving. However, it will enforce a pre-commitment to long-term saving which will mitigate against the issues of self-control that challenged most participants. It also has the potential to take advantage of the peer effect of individuals by encouraging the motivation that comes from group saving.

Summary of Findings

By understanding the irrationalities and biases behind individuals' saving behaviour, Thaler and Benartzi were able to develop three key design elements for the 'Save More Tomorrow' programme to encourage improved saving behaviour. The first design element of financial literacy and planning proved vital for the South African audience who were constrained by below average education levels and limited access to appropriate advice. The participants also illustrated concerning levels of status quo bias and self-control which automatic enrolment would mitigate against in order to commit them to improve their saving behaviour. Similarly, with rising costs and aspirations to display upwards economic mobility, most of the participants were generally unable to, and had no plans to, increase their saving year-on-year. A pre-commitment to increased savings after receiving an increase would aid in alleviating the participants' loss aversion felt when reducing their disposable income for saving and encourage improved long-term saving behaviour.

However, based off the context of the participants, their personal struggles and the mechanisms in which they have been able to achieve some saving, two additional design elements have been proposed. The unpredictability of the participants' lives as well as their entrenched approach of saving for the end of the year requires flexibility to the withdrawal terms. Through better understanding the participants' needs these can be pre-defined with the individual while still prioritising long-term saving. Moreover, the size and importance of stokvels in South Africa provide for the positive community-driven aspects of its design to be incorporated while reducing the risks of the informal system. Allowing the saving process to remain a communal process reduces the divergence from the status quo while incorporating positive peer-effect attributes to saving, all while still prioritising long-term saving.

Conclusion

Behavioural economic theory has been flaunted as universally applicable, however limited qualitative work has been performed in unique contexts such as South Africa. Through this study's first-hand interviews, based in behavioural economic theory, it was revealed that the participants were inflicted by the same types of irrationalities and biases as sighted in the literature. Interestingly, as a result of the participants' arduous context, they illustrated heightened forms of bounded rationality and, in turn, greater reliance on their biases and various forms of heuristics.

The literature also conferred many of the same constraints and limitations facing South Africa's dreadful saving rate as suggested by the participants. Large-scale poverty, low education, lack of access to resources and expertise as well as a debt-enabled consumer culture was commonly observed by the participants. However, the results also revealed deeper insights as to the external and self-developed mechanisms utilised by the participants to try and overcome these constraints. Motivated by their aspirations for themselves and their children they would allow external parties to take on the responsibility of managing their saving or else create fixed rules that would limit their struggles with self-control.

These findings illustrated the potential positive influence of the three key design elements of the 'Save More Tomorrow' programme. Through financial education, planning, automatic enrolment and pre-committed increases, such a programme would both mitigate against the individuals' irrationalities and biases as well as the constraints and limitations they face. However, in order to take advantage of the insights of where successful saving behaviour was observed, two additional design elements were presented. Allowing for degrees of flexibility on the withdrawal terms allows for greater comfort as to existing saving behaviour and a peer saving mechanism encourages the formalisation of the large-scale stokvel system. While still prioritising long-term saving, these additional design elements will allow the programme to be tailored more closely to existing positive saving behaviour.

CONCLUSION AND RECOMMENDATIONS

Introduction

South Africa has one of the worst saving rates in the world (Zwane et al., 2016), affecting the country from both a microeconomic and macroeconomic point of view. Having observed the success of the behavioural economic-based 'Save More Tomorrow' programme, this study undertook the task of understanding whether a similar type of programme may have the same positive effect on saving behaviour in the South African context.

In order to achieve this objective, it was imperative to first assess whether the irrationalities and biases theorised within behavioural economics remained consistent within the South African context. Likewise, a deeper understanding of the day-to-day struggles and constraints of typical working-class South Africans was sought out in order to triangulate against the more macroeconomic literature around saving behaviour in South Africa. Based off these insights, an assessment was made as to whether the design elements of the 'Save More Tomorrow' programme would, in fact, have the same positive effect in South Africa or whether changes would need to be made.

The below section will present the principle findings from this study, structured as per the three research questions, and provide a consolidation of the findings through a saving behaviour framework. Moreover, the implications of the study on relevant stakeholders, the limitations of the study, and suggested areas for key research will be discussed.

Principal Findings

<u>Irrationalities and biases</u>

Behavioural economics has revealed that human beings have multiple irrational tendencies and biases that limit their' ability to make optimal choices (Nagatsu, 2015). Through their work, Thaler and Benartzi had identified six of these principles that they believed directly affected the saving behaviour of individuals, and which they used to design the successful 'Save More Tomorrow' programme (Thaler & Benartzi, 2004). In order to understand if a similar programme would work in the South African context it was important to assess whether those irrationalities and biases that underpinned the programme translated in the same manner in the South African context.

As a result of the endless amount of information, choices and potential outcomes, human beings do not have the cognitive capability to make the optimal choice (Ross, 2014). This bounded rationality was easily observed in the participants who struggled to work out the optimal way to save, especially for long-term objectives such as retirement. It can be argued that in the South African context this bounded rationality was in fact heightened because of the dysfunctional education system (Spaull, 2015), low financial literacy and lack of access to expert advice (Syden, 2014).

As much as the participants struggled to work out how to optimally save, they also found it difficult to successfully execute their saving plan. The issue of individuals wanting to save more than they actually are is a global phenomenon driven by a lack of self-control (Van Zyl & Van Zyl, 2016). Human beings have a tendency to prioritise the needs of their short-term self over the long-term success of their future self (Kool et al., 2013). Many of the participants came from difficult backgrounds and as they were moving forward they were wanting to enjoy some of that success. This consumeristic culture impeded their self-restraint against immediate satisfaction and affected their ability to plan for the future. However, as observed in the findings of Thaler and Bernartzi (2004), several of the participants had derived rules and constraints on their short-term self to aid in their saving endeavours. These came in the form of having separate bank accounts, making use of fixed debit orders or limiting their ability to withdraw from their savings.

Many of the participants mentioned that they felt stuck because of the above, however this was also a result of their status quo bias. Individuals tend to fear that the disadvantages of change loom larger than the potential advantages, causing them to rather remain with the current state (Riella & Teper, 2014). This was revealed by the participants who considered changing their bank or saving approach but never got around to it, and by those that would choose what they believed was the status quo of those around them. The fear of moving backwards was elevated considering the oppressive nature of their history. Knowing the struggles they and their parents faced, it is understandable that the participants were distressed by the thought of ever moving back.

As an extension of the status quo bias, individuals have an aversion towards any type of loss. It has been calculated that the feeling of loss has twice the impact of a corresponding gain (Laibson & List, 2015) making individuals exceptionally loss averse. This could be observed in the participants who did not want to lose out on current disposable income for the potential of a future upside – either in the form of saving or investing in self through education or starting a business. This phenomenon is exaggerated when the individual owns something, known as the endowment effect. The participants illustrated this through their prioritisation of tangible assets such as property or cattle over items that lacked the same sensation of physical ownership such as investment accounts at a bank.

Considering this abundance of data, choices and outcomes, human beings resort to heuristics, shortcuts and rules of thumb in order to allow them to make some form of choice (Hilbert, 2012). Most of the participants resorted to this process as was shown by their rough calculations, use of rounded numbers and gut feel approach. However, this process often causes over simplifications that result in sub-optimal decisions being made (Van Zyl & Van Zyl, 2016) as seen by the participants' inadequate financial planning. Moreover, individuals tend to reduce their expectation of the ideal outcomes through satisfying with a close-enough outcome (Lee, 2011). Several of the participants 'hope for the best' approach to their retirement saving was an extreme example of this.

Another approach used by individuals to assist in decision-making is to be over-reliant on the advice of peers, who, unfortunately, are generally unqualified (Angrist, (2014). Many of the participants made use of advice from friends and family or their stokvel group members. However, these peers were generally as uninformed on the matter of finance as they were. The sense of comfort that comes from going along with the majority as well as individual's tendency to self-select into similar peer groups gives rise to this phenomenon (Lahno & Serra-Garcia, 2015). It in turn results in groups all saving in the same manner without any tailoring towards the specific need of each individual. This was particularly apparent by the participants who were part of stokvel groups where all members agreed to all save the same amount in the same way.

Limitations and constraints

Even though the importance of saving has been well recognised, inadequate saving is a global issue that is expected to get worse based off the negative trajectory of the past decade (World Bank, 2019b). South Africa has been identified as one of the worst savers in the world. Of particular concern is the near to zero household saving rate (Precious & Asrat, 2014) which has negative effects from both a macroeconomic and an individual level. While the macroeconomic and broader socio-political explanations have been well researched (Zwane et al., 2016), this study enabled a closer qualitative look at the day-to-day limitations and constraints facing the population of this study.

The participants revealed an optimism and ambition for a brighter future for them and their children. They concurred with the literature (Van Zyl & Van Zyl, 2016) that saving was an important aspect of obtaining that ambition, yet many felt disheartened by the lack of forward momentum. As per Bernheim's et al., (2015) research on how poverty can limit economic mobility, the participants struggled to manage how to balance getting by in their difficult present situation and building towards a better future.

Most of the participants blamed their financial limitations for their difficult situation. South Africa's history of discrimination severely oppressed the majority of the population and had left long-lasting negative financial consequences on those affected (Hurlbut, 2018). As highlighted by the participants, they still faced constrained earning potential and do not earn enough to cover all of their expenses. Moreover, nearly two-thirds of the participants were the only breadwinners for their family and many had to support both their children and their parents, resulting in great pressure on their meagre income. To make matters worse, South Africa's advance banking sector has resulted in easy access to credit (Zwane et al., 2016), a situation that had negatively affected a handful of participants.

South Africa also has one of the most dysfunctional education sectors in the world (Spaull, 2015) which has been shown to reduce the financial literacy of individuals (Syden, 2014). The participants illustrated their low financial literacy through their limited understanding of financial terms, their confusion about how banks function, and their inability to financially plan. They were further limited by their lack of access to qualified advice and financial expertise. It has also been found that the strain of poverty reduces cognitive ability (Gabor & Brooks, 2017) which may have further affected the participants.

As much as their financial limitations should be recognised, all of the participants struggled with their own self-restraint and discipline – even if they did not recognise it themselves. In the country's transition into a young democracy the general population has developed an aspirational culture that has resulted in much conspicuous consumption (Precious & Asrat, 2014). Many of the participants, especially the younger ones, recognised that they spent money on items they should not have and that they struggled to stop themselves from withdrawing their savings. However, there were some positive signs of individuals being able to save by passing on control to external parties such as the bank, stokvels or their employers.

There has been much literature on the positive attributes of saving (Van Zyl & Van Zyl, 2016), but one of the less mentioned reasons is the psychological safety it provides. It was easy to notice the relief of the participants who did save in their knowledge that if something unexpected was to happen, they had some savings to fall back on. The opposite applied to those that did not save, who felt anxious and stressed about the uncertainty if any issues arose. Interestingly, there was a strong feeling of relief for those who were able to save for their children's future. They felt secure in the knowledge that they were setting up their children to live a better life than they had.

The final constraint towards saving was the mistrust that the participants had for both banks and stokvels. South Africa has one of the best financial sectors on the continent, however it was developed to service the elite sector of the country, leaving the majority disillusioned about the banks' intentions (Syden, 2014). The participants also noted several negative experiences when engaging with the banks where they felt banks were unfair and took advantage of them. Some of these bad experiences may have to do with the participant's limited understanding of how the banks work. Similarly, many had noted bad experiences they, or friends, had with stokvels. Stories of scams, thefts and people falling through were the main concerns put forward. With the informal dynamic of stokvels, these experiences could be expected (Van Wyk, 2017).

<u>Interventions</u>

Thaler and Benartzi underpinned the design of the successful 'Save More Tomorrow' programme in behavioural economic theory. In this way they were able to circumvent the human irrationalities and biases that generally cause suboptimal decision-making and use that understanding to encourage a positive shift in saving behaviour (Thaler & Benartzi, 2007). By interrogating the decision-making process of the participants, this study was able to assess whether the three key design principles utilised by Thaler and Benartzi would have the same positive effect in the South African context.

Their initial insight was that financial decision-making is a particularly difficult process and that most individuals are unqualified to make the right choices (Van Zyl & Van Zyl, 2016). This was particularly noticeable from the participants who, generally, had relatively low financial literacy and were unable to rationalise their saving habits or develop a saving plan. To mitigate against this, Thaler and Benartzi would encourage that individuals received financial education and planning advice. This would encourage greater cognisance of the importance of saving and a clearer plan as to how to go about it. This step would certainly help reduce the cognitive constraint of the participants and, based on their comments, they would be eager to receive the advice.

Based off their findings, Thaler and Benartzi (2004) were able to illustrate that financial education was only effective when coupled with appropriate saving programme design. They observed that human beings have a tendency to go with the default and, because of their status quo bias, would generally stay with that default. This tendency was also observed in the participants who overwhelmingly went with the default, or easiest, option and who seldom changed their saving behaviour. However, by making automatic enrolment the default, the 'Save More Tomorrow' programme was able to use these biases to improve saving behaviour (Thaler & Benartzi, 20014). This approach would have the same positive effect on the participants based off the minimal enrolments observed for optional saving programmes and the positive improvement in saving from those who were mandated into a programme by their employer.

Thaler and Benartzi also appreciated the barrier that loss-aversion had on long-term saving success. Individuals would be loathed to lose-out on their current disposable income, even if it meant improved saving, and thus seldom increased their saving rate (Thaler & Benartzi, 2007). The aversion to increase saving was well recorded by the participants who had been saving the same amount year-on-year or who said that if they earned more they would prioritise improving their lifestyle before saving more. To manage these tendencies, Thaler and Benartzi (2007) included the design element of pre-commitment to increasing saving after receiving an increase in income. In this way individuals never had to reduce their disposable income while still improving their saving rate each year. Given the desire to save and the poor execution by the participants, such an approach would certainly aid their long-term saving ambitions.

There are two additional design elements that are recommended based off the deeper understanding of saving behaviour in South Africa gained through this study. The research revealed the difficulties and uncertainty of the lives of the participants. It would, therefore, be daunting for them to put away their saving without having any access to it. Moreover, many had developed the habit of saving throughout the year for buying groceries in bulk and paying school fess at the end of the year. There should, therefore, be flexible withdrawal terms that allow for access to a percentage of money for pre-defined emergencies and end of year expenditure. This would minimise the loss aversion from not having emergency access to the money, as well as the status quo bias of wanting to keep saving in a similar manner. Most importantly, it mandates that only a percentage may be withdrawn to ensure improved long-term saving.

The importance of the stokvel system in South Africa cannot be ignored. It is a positive vehicle for saving, while providing a sense of community, support and motivation. By enabling a peer-saving design element, the programme could incorporate these positive attributes of stokvels while reducing the concerns raised by the participants. Formalising the stokvels would enable interest to be earned and would reduce the potential for scams and theft. Importantly, it would also pool the substantial stokvel savings into the formal system which could be used to invest in growth producing assets and resources. In doing so, the programme design could minimise poor self-control by designating withdrawal terms that encourage long-term saving. Programme participants could continue with a familiar system to reduce the effect of status quo bias, while utilising the positive potential of peer-effect that the stokvel system offers.

Proposed framework

The importance of saving, for individuals and macroeconomic growth, has been well recognised in international literature (Amusa, 2014). Considering the low saving rate in South Africa, in particular the close to zero household saving rate, it had become crucial to better understand the financial decision-making process in order to determine how to positively shift household saving behaviour.

Behavioural economics illuminated a range of irrationalities and biases that reduce human beings' ability to make optimal decisions. Thaler & Benartzi's (2004) founding work identified six such irrationalities and biases that are most applicable to saving behaviour. In recognising that these limitations and biases are applicable, and in some situations heightened, in the South African context, this study was able to observe how they both cause and compound the limitations and constraints that face South African's in their saving endeavours. The qualitative approach of this study allowed for a deeper understanding of these limitations and constraints to identify that the three key programme design elements from the 'Save More Tomorrow' programme would work as positive interventions for saving. However, in revealing deeper insight into the behaviour of the participants, two additional design elements were proposed as further interventions to drive improved saving.

The below framework illustrates the cause and effect of the above description. The six identified irrationalities, as proposed by Thaler and Benartzi, cause and compound the limitations and constraints that formed the six thematic headlines for the participants saving behaviour. Through the deeper understanding of these components, the study revealed how the five proposed interventions would positively reduce these limitations and constraints and drive more promising saving behaviour

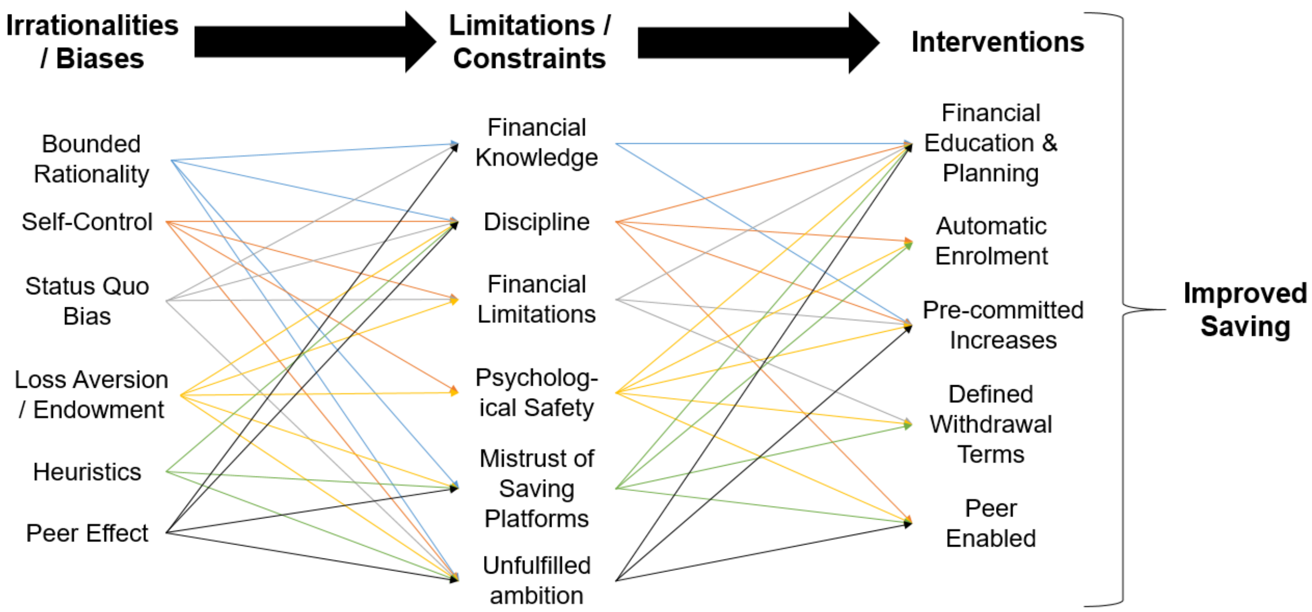

Figure 6: Saving Behaviour Framework

Implications for Management and other Relevant Stakeholders

The qualitative nature of this study allowed for a deep understanding of the financial decision-making process and saving behaviour of low-to-middle income South Africans. These insights have implications for multiple key stakeholders who could benefit from increased saving in South Africa.

<u>Financial Service Providers</u>

The findings of this study reveal several insights for how financial service providers should design and communicate their products. Historically, the focus of these institutes was the elite minority (Syden, 2014). However, with an emerging middle-class they are having to refocus and become more inclusive. Key to this will be how they communicate to the populace with low financial literacy and who do not speak English as a fist language. Considering that there is already a trust deficit with this audience, it will be vital for them to communicate in a way that is easy to understand, relatable and compelling to the consumers' needs. These institutes should also take on the responsibility of providing more financial education and support programmes for their client-base. Similarly, it will be important that they expand on this study to really understand the needs of this market segment in order to design the products and support in a manner that best accommodates and compliments this segment's saving behaviour.

Policy Makers

It was observed in this study that there is an ambition to save, however the individuals require support and guidance in order to successfully execute against that ambition. Policy makers should take up the task of developing pro-saving policies that would encourage and enable the five key design elements recommended by this study. The ease of access of credit should be reconsidered to limit the repayment burden on individuals that cannot afford it. Moreover, the formalisation of informal saving vehicles, such as stokvels, needs to be prioritised for the benefit of both the individual and macroeconomic growth. Several participants also indicated their reliance on their employer to support their saving endeavours. To further this positive saving behaviour policy makers should consider how they might incentivise employers to provide further support to their employees.

Employers

As per the above, the findings of this study revealed the reliance of several of the participants on their employers to help them to save – especially for individually managed jobs such as domestic workers and gardeners. Employers need to recognise that they have a responsibility for the wellbeing of their employees. They often have the means to support and facilitate saving endeavours and provide financial literacy guidance and training which their employees would otherwise not have access to.

Educational Institutes

Low financial literacy was a recurring theme throughout this study as a significant constraint. Educational institutes, across all levels of learning, need to consider how they can contribute to improving financial literacy through their course material as well as additional seminars and training for the broader public.

Individuals

Individuals tend to be overconfident with their decision-making (Van Zyl & Van Zyl, 2016), yet this study revealed that human beings are generally more irrational and have a greater number of biases than traditionally considered. It is important for individuals to acknowledge their own irrationalities and biases in order for them to more constructively consider their decisions and behaviours and arrive at more optimal outcomes. Moreover, the participants in this study revealed a range of rules and mechanisms they utilised to aid their saving endeavours which may be of interest for other individuals to consider adapting to their own saving behaviours.

Academia

This study revealed that principles and theories that are flaunted as universal need to be more deeply interrogated in a variety of contexts to fully determine similarities, differences and nuances. As discovered in this study, on face value all of the behavioural economic principles rang true for the participants. However, after greater interrogation, nuances were observed as a result of the context of the participants. It is vital to fully understand these nuances, particularly when the objective is to use the theory to change human behaviour, to ensure that behaviour is being changed in a manner that is desirable by the individuals.

Moreover, previous literature on South African saving has predominantly been from a macroeconomic perspective (Zwane, et al., 2016). The findings of this study have been able to bolster the more micro components of saving behaviour by providing a deeper psychological perspective of individuals' decision-making. These insights are able to complement the existing literature to provide a more holistic understanding of saving.

Limitations of the research

Researcher bias

Qualitative research is understood to be at risk of researcher subjectivity and bias. The process is reliant on the researcher to make use of their own sound judgement in the collection and assessment of the data (Zikmund et al., 2013). Through much self-reflection, the researcher ensured requisite time to acknowledge and appreciate this bias and his own assumptions in an effort to mitigate against the potential of skewing the data.

Time horizon

The data collection period for this study was limited to the December 2019 and January 2020 period. This constrained the study to a cross-sectional approach in which the researcher was only able to consider behaviour at a single point in time and unable to observe changes in behaviour over a period of time (Saunders, & Lewis, 2018). Moreover, the end and start of the year are typically the most challenging times for individuals to manage their finances and saving. However, the participants were encouraged to provide a holistic point of view of their saving throughout the year.

Cultural and language differences

The interviews conducted in this study were in English as it was the first language of the researcher. However, most of the participants were second-language English speakers, which may have affected the clarity and meaning of their communication or their understanding of the questions. Moreover, the researcher was of European decent and may not fully comprehend some of the cultural nuances from the participants. This study was also constrained by only interviewing participants who lived and worked within Gauteng. Although this sample provides a good basis for how the rest of the country may behave, the study was unable to expand the geographic limitations to be able to claim this with any certainty.

Respondents Bias

Participants were requested in the interview to provide sensitive information about both their financial situation and their decision-making process. The questions were also designed to reveal some of the irrationalities and biases afflicting the participant which can lead to uncomfortable self-realisations. These types of sensitive questions can be prone to respondent bias as they would want to appear better-off or more adept than they are actually (Näher & Krumpal, 2012). Effort was made to ensure comfortability with the participants and that any comments would remain anonymous.

Suggestions for future research

Benefits of a formalised stokvel system

The academic research and results of this study revealed the importance of the stokvel system within a developing market such as South Africa. However, the informal structure means that individuals do not receive interest and are open to scams and theft. More importantly, the savings cannot be utilised for investment into growth producing assets and infrastructure. Future research should look into the potential positive macroeconomic impact of formalising the stokvel system and what policy and product considerations would need to be contemplated.

Saving mechanisms for the informally employed

Some participants in this study were informally employed – particularly the domestic workers and gardeners. This dynamic left them with limited job security and without the correct structures to aid them with their saving behaviour. It would be of interest to research the size of this market as well as the potential impact of a saving device provided specifically for those in this segment.

Financial literacy support

As illustrated in both the literature and results of this study, the average level of financial literacy in South Africa was particularly low – predominantly stemming from a dysfunctional education system and the previous discriminatory government. It would be of great social benefit for further research to assess the best possible method to sustainably improve the levels of financial literacy in South Africa. An extension of this study could look into types of financial literacy training programmes that could be introduced at various education levels.

Product communication

It was mentioned by several of the participants of this study that they felt overwhelmed and confused by the banks. A worthwhile marketing assessment into this dynamic would be able to help better match the communications of the banks to the level of understanding of the general population. This would encourage greater uptake of the products for banks as well as reduce the stress and confusion for the individuals.

Employer incentives

A number or participants in this study confessed their reliance on their employer to save on their behalf. However, many did not have this as an option. Further research should be done on how employers could be motivated to better support their employees saving endeavours. This may be in the form of policies mandating more responsibility on employers or alternatively tax benefits for employers who support a saving agenda.

Financial services reputation management

There was a level of distrust towards the banks uncovered in the results of this study. This issue of public relations provides the opportunity for deeper research as to why there is this level of mistrust as well as what could be done by the financial services companies to remedy their reputational woes.

Pre-commitment experimentation

The results of this study qualitatively confirmed that individuals would benefit from a pre-commitment to increasing their saving rate. However, an experimental approach would be able to quantitatively ascertain whether individuals would be willing to actually commit and if there are better or worse framings of this commitment that would increase uptake.

Employee defaults

Participants of this study revealed that they believe when employee saving programs are not mandatory that most individuals would not enrol. However, in these situations the default was to not take it up and the option was available to select to take it up. Further research should look into the quantitative effect if the default was instead to be enrolled. It would also be of interest if there was an optimal default saving rate that encouraged the greatest take up rate with the most promising long-term effect.

Conclusion

Empirical research has shown the positive attributes of saving for both macroeconomic growth and individual security and economic mobility. However, inadequate saving has been recorded globally, with particular shortcomings in emerging markets such as South Africa. In order to address the saving dilemma, this qualitative study was based in behavioural economic theory in order to assess the irrationalities and biases of thirty-one low-to-medium income, South African participants.

The findings illustrated that the participants displayed the same irrationalities and biases, in some cases to a heightened extent, as a result of their low financial literacy and difficult circumstances. These irrationalities and biases were further observed to create or compound constraints and limitations to the participant's ability to save.

Having appreciated these insights, the key design elements of the successful 'Save More Tomorrow' programmes, developed by behavioural economics professors Thaler and Benartzi, were assessed. These were financial education, automatic enrolment and pre-committed increase. It was found that all three would have a positive impact on improving saving behaviour in the South African context, while an additional two design elements were suggested to leverage the existing local saving behaviour. It was proposed to include withdrawal terms that enable a portion of saving to be utilised for emergencies or annual consumption as well as allowing structures for peer-driven saving. These two design elements would reduce loss-aversion, minimise status quo bias and take advantage of the peer effect, while prioritising long-term saving.

The deeper understanding from this study of saving behaviour in South Africa revealed the desperate need for constructive interventions to uplift the exceptionally low saving rate. The behavioural economic-based 'Save More Tomorrow' programme provides such an opportunity, particularly when tailored to include contextually relevant design elements, to sustainably uplift individuals and the economy through improved saving behaviour.

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APPENDIX

Appendix 1: Consistency Matrix

Research Questions	**Literature review**	**Data Collection tool**	**Analysis Technique**
Do South Africans display the same decision-making irrationalities as illustrated in Western behavioural economic research?	South African Context Behavioural Economics and Its Opportunity Key Behavioural Economic Theories for Saving Save More Tomorrow	Interview questions, sections 2 - 7	Thematic Content Analysis
What do South Africans attribute to their personal gap between desired and actual saving behaviour?	South African Context South African Saving Importance of Saving Key Behavioural Economic Theories for Saving	Interview questions, section 1 (supported in 2 - 7)	Thematic Content Analysis
Could the behavioural economic principles utilised in the 'Save More Tomorrow' programme have the same positive effect on saving behaviour in the South Africa context?	South African Context South African Saving Behavioural Economics and Its Opportunity Key Behavioural Economic Theories for Saving Save More Tomorrow	Interview questions, sections 2 - 7	Thematic Content Analysis

Appendix 2: Question Guide

Question guide for those who save:

THEME	**QUESTIONS**
1. General	• Are you currently earning an income? • What is your household income after tax? ○ A) Around R1500, B) around R3000, C) Around R6000, D) Around R11000, E) around or more than R27 000 • How many people does your household income have to support? • Do you currently save a portion of your income monthly? • If so, what platforms do you use to save?
2. Bounded rationality	• What do you believe is the greatest benefit to saving? • How many different options did you look into before deciding where to save? What made you decide on the ones you chose? • Can you explain to me how inflation works? • Can you explain to me how interest works?
3. Self-control	• Do you think you should be saving more? Why? • What rules have you created for yourself to help you save? • How did you come up with those rules? • Do you find those rules are effective? • How often do you break those rules? • What caused you to break those rules?
4. Status quo bias	• How often do you review your savings to see how well they are doing? • How often do you change your approach to saving? • When you have, what made you change the approach? • Is there something that you would like to be doing differently with how you save? Why have you not made that change?
5. Loss aversion / endowment effect	• Do you try and save just after being paid or do you wait to see how much is left at the end of the month?

	• Do you ever worry that you will not have enough money left over after you have already put some away into savings? • How do you decide when to increase the amount that you save?
6. Heuristics	• How do you decide on how much to put towards saving each month? • Have you ever worked out how much savings you will need for when you retire? How did you work this out? • Do you feel overwhelmed by the amount of information out there around saving and how did you make sense of it?
7. Peer effect	• Who do you go to for advice on saving? Why do you find their advice valuable? • Do you normally follow the advice they give you? Do you follow it exactly? • Have you ever spoken to an expert for saving advice? Who was it and why did you go to them? Did you follow their advice? • Do you think your friends save more or less than you? Would you save more if you knew they were saving more?

Question guide for those that do not save:

THEME	QUESTIONS
1. General	• Are you currently earning an income? • What is your household income after tax? ○ A) Around R1500, B) around R3000, C) Around R6000, D) Around 11000, E) around or more than R27 000 • How many people does your household income have to support? • Do you currently save a portion of your income monthly? • If so, what platforms do you use to save?
2. Bounded rationality	• What do you believe is the greatest benefit to saving?

	• How many different options have you looked into? What made you decide not to use them? • Can you explain to me how inflation works? • Can you explain to me how interest works?
3. Self-control	• Do you think you should be saving? Why? • What is holding you back from saving? • Do you think it would be possible for you to save, even a little bit, if you put your mind to it? • What do you think would help motivate you to save?
4. Status quo bias	• Have you always not saved? • When was the last time you thought of starting to save?
5. Loss aversion / endowment effect	• Is part of your worry that you will not have enough money left over after you have already put some away into savings?
6. Heuristics	• Have you ever worked out how much savings you will need for when you retire? How did you work this out? • Do you feel overwhelmed by the amount of information out there around saving and how would you try make sense of it?
7. Peer effect	• Who would you go to for advice on saving? Why do you find their advice valuable? • Why did you not follow the advice they give you? • Have you ever spoken to an expert for saving advice? Who was it and why did you go to them? • Do you think your friends save? Would you try save if you knew they were saving a lot?

Appendix 3: Ethical Clearance

Gordon Institute of Business Science
University of Pretoria

22 October 2019

Steven Mitchell

Dear Steven

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

Please note that approval is granted based on the methodology and research instruments provided in the application. If there is any deviation change or addition to the research method or tools, a supplementary application for approval must be obtained

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee

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Appendix 4: Participant Consent Form

Gordon Institute of Business Science
University of Pretoria

To Whom It May Concern,

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on saving behaviour in South Africa. Our interview is expected to last about half an hour, and will help us understand how we might be able to improve our saving behaviour in South Africa.

Your participation is voluntary and you can withdraw at any time without penalty. All data will be reported without identifiers. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Steven Mitchell

04901640@mygibs.co.za

083 637 9366

Research Supervisor

Adrian Saville

Adrian@cannonassets.co.za

Signature of participant: ___________________________________

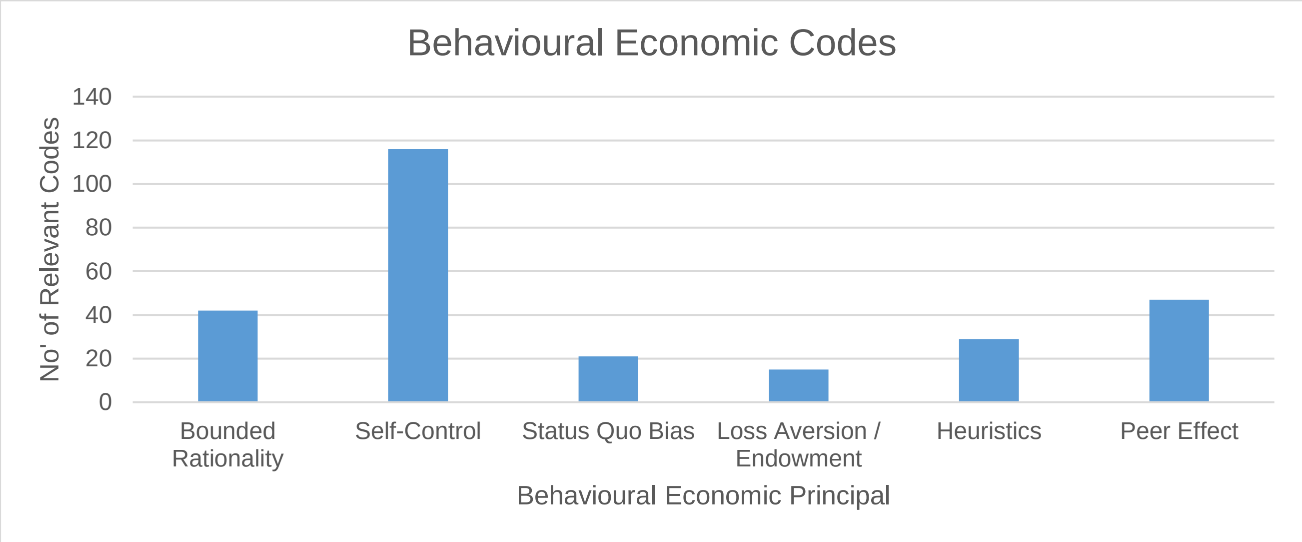
Name of Participant: ____________________________________

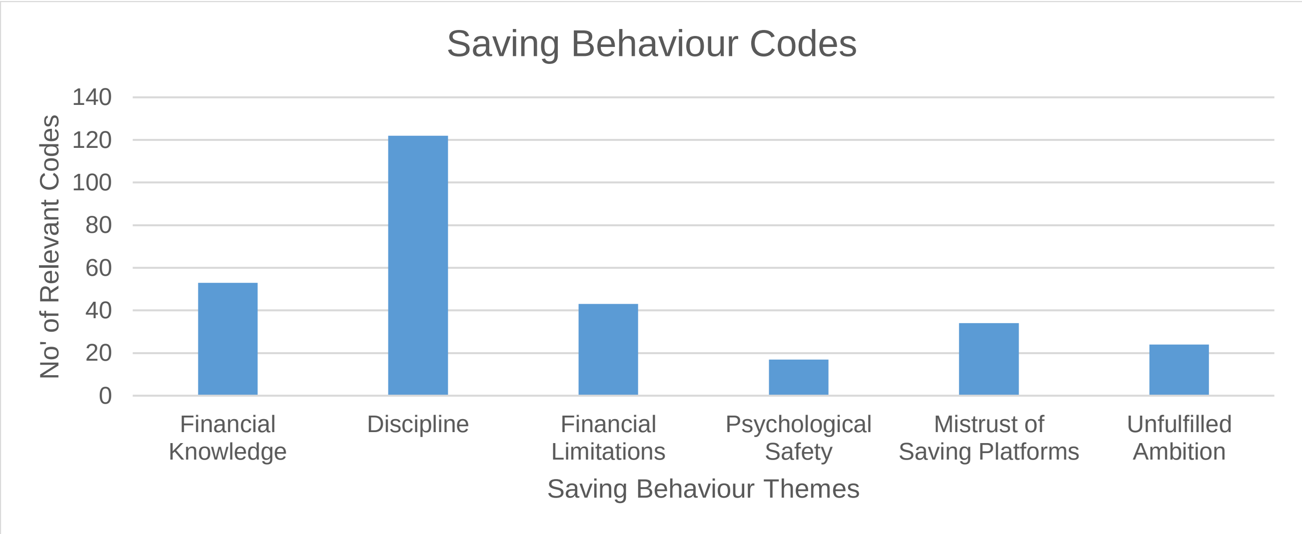
Date: _________________

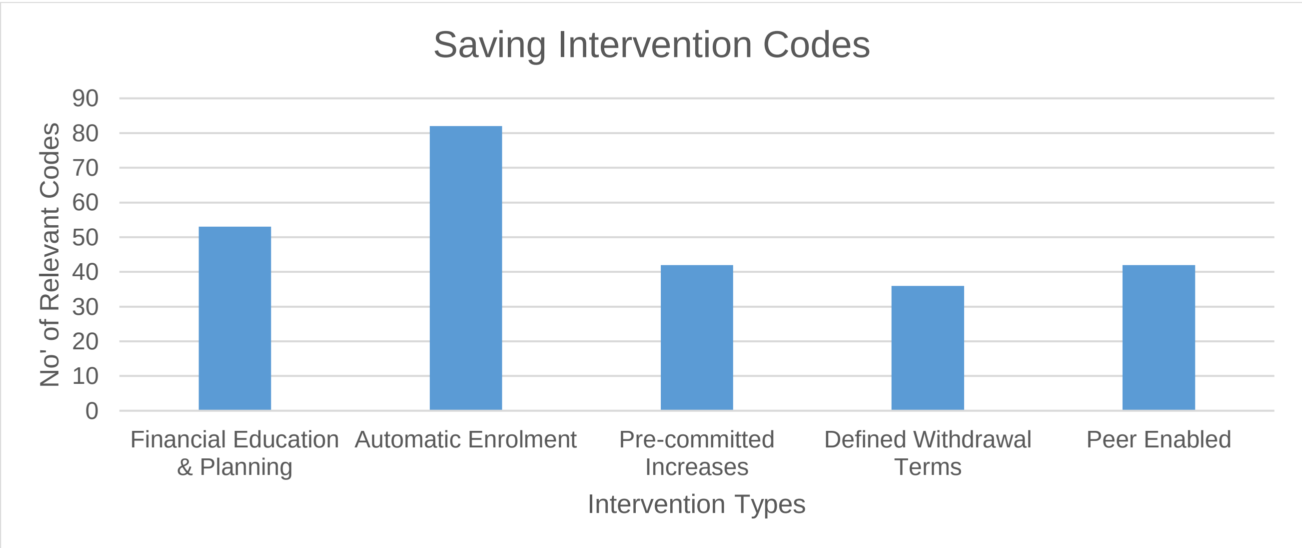
Signature of researcher: ___________________________________

Date: _________________

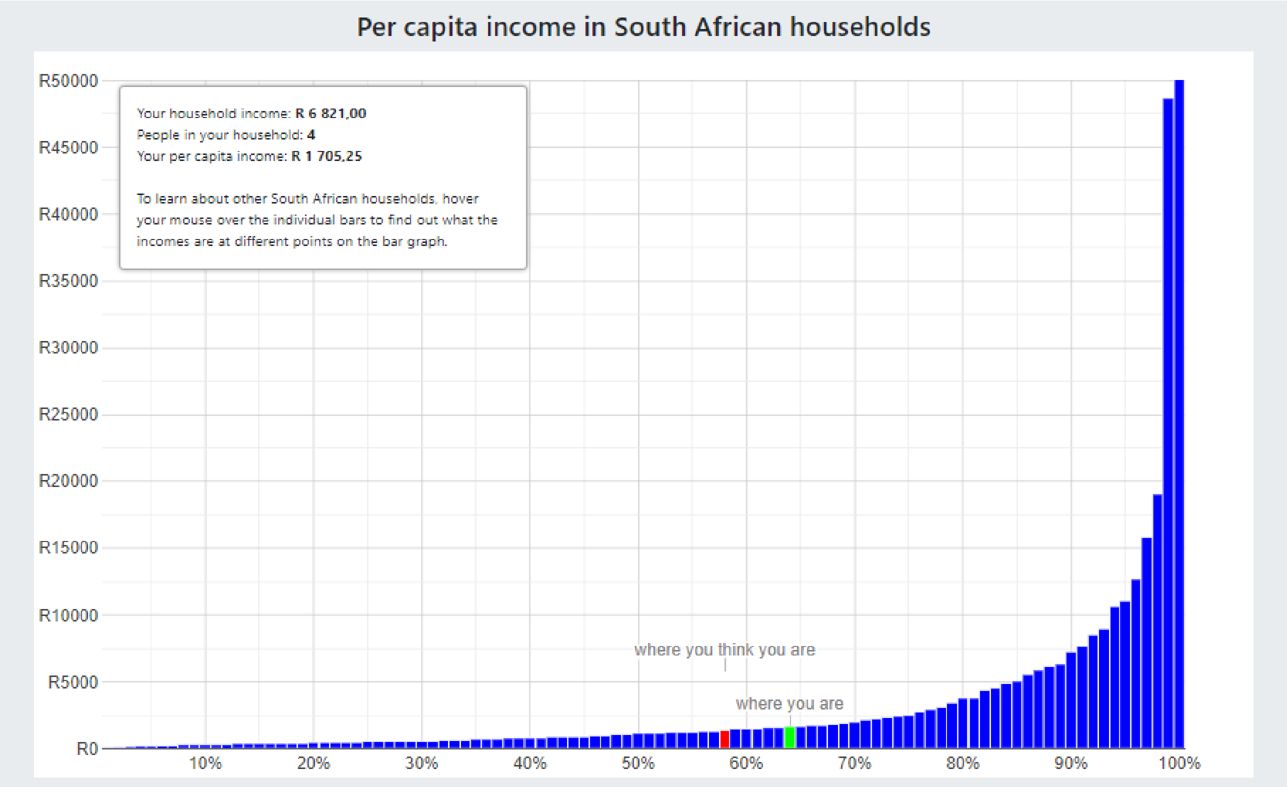
Appendix 5: Coding Summary







Appendix 6: Household income of the Average Participant In Comparison to the Rest of South Africa



Source: SALDRU. (2020). Income Comparison Tool. Retrieved from https://www.saldru.uct.ac.za/income-comparison-tool/