Assessing financial literacy and its influence on retirement planning willingness in South Africa

by

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Abstract

Developed countries are showing an increasing trend that individuals are not adequately planning for retirement which places strain on the economy as these individuals then become financially dependent on the government for their well-being. According to additional studies, close to half of the South African population does not have a retirement plan in place. The Investments Retirement Reality Report of 2020 indicate that only 6% of the of the population are in a position to retire comfortably which indicate that savings are not being prioritised and will negatively impact South Africans at retirement.

Studies show that even though individuals are financially literate that they still do not place importance on the need to achieve financial freedom when they do retire. The study investigates the relationship between financial literacy and retirement planning willingness. Overall results indicate that although a South African individual may be financially literate it does not translate into retirement planning willingness. The study aids South African citizens, policy makers, the government, and organisations in determining where to place overall emphasis on retirement planning. This includes ensuring that individuals adopt money management principles such as creating and tracking a budget and ensuring that the essentials are covered as part of the budget, such as saving for emergencies so that credit is managed, contributing enough to retirement, having a tax-free retirement savings account in place, and creating and sticking to a budget.

Key words

Retirement planning willingness, financial literacy, financial freedom

Declaration of originality

I, Enrico Ghirdari, hereby certify that this research proposal for the Master of Business Administration degree at Regenesys Business School has not been filed for a degree at this or any other university. The proposal's idea and execution are my own, and all sources have been appropriately cited.

Signature

Date

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LIST OF ABBREVIATIONS

Abbreviation	Meaning
USA	United States of America
UK	United Kingdom
SA	South African
OECD	Organisation for Economic Co-operation and Development
KZN	KwaZulu Natal
UK	United Kingdom
ONS	The Office for National Statistics
LCH	Life-Cycle Hypothesis
OAG	Old Age Grant

CHAPTER 1

Introduction and background to the study

1.1 Introduction and background

The Covid-19 pandemic has caused great volatility in global financial markets which has resulted in an overall negative impact on household income (The World Bank, 2020). These global impacts have had a negative effect on investment returns within the financial market which directly impact individual's savings and retirement planning (Bacher, 2020). Previous changes in retirement systems across the globe have shifted responsibility for making financial decisions related to retirement from the employer to the employee (Agnew, Bateman, & Thorp, 2012).

According to Reyers, Van Schalkwyk and Gouws (2015) there is a worldwide concern that households are not appropriately planning for retirement. Developed countries such as China, Canada, United States of America (USA), France and the United Kingdom (UK) have more than 50% of the retired population that depend on the government for their well-being (Nunn, 2017). Brett (2020) expresses that 41% of investors globally are in doubt around whether they would have accumulated enough savings in order to fund their retirement post the Covid-19 pandemic. This is a result of poor financial decisions in relation to retirement planning.

The global sentiment has not excluded South Africans from the equation as they too are at risk of not having prepared adequately for retirement. Mathe (2020) expresses that close to 50% of the South African (SA) population do not have a retirement plan in place and according to the Investments Retirement Reality Report of 2020, only 6% of SA respondents have a retirement plan in place which they are sticking to. According to Treasury (2012), South Africans contribute 60% of their household savings towards retirement. However, Old Mutual (2019) highlight that the portion of individual income allocated to savings has dropped from 21% in 2012 to 16% in 2019. This staggering statistic highlights that savings are not being prioritised and will negatively impact individuals at retirement.

The decreasing contribution rate towards retirement savings will have dire consequences on the South African economy and its local communities. If South African citizens do not adequately save for retirement, the government may be in danger of having to provide financial support to its citizens through current social welfare schemes. The overall impact on the economy will be less funding available for infrastructure development which could lead to negative growth in the economy (Le Roux, 2010). In addition, the youth in South Africa will be negatively affected as the elderly will place dependence on them for financial support which will lead to negative impacts in saving towards their own retirement (Dhlembeu, 2018).

According to Dhlembeu (2018) one is considered to have planned successfully for retirement if the individual has given careful thought into how much is required when they do eventually retire and if their current plan will get them to that goal. There are many factors that contribute towards an individual not being adequately prepared for retirement which includes not calculating correctly the amount required to maintain one’s financial well-being into retirement. Research highlights that even though individuals are financially literate that they still do not place importance on the need to achieve financial freedom when they do retire (Dhlembeu, 2018).

The Organisation for Economic Co-operation and Development (OECD) describes financial literacy as the amalgamation of information, skill, awareness, behaviour, and attitudes that are essential in making a sound financial decision which will eventually assist an individual in achieving financial wellbeing (OECD, 2011:03). Hastings et al. (2013) indicates that there is a positive association between financial literacy and sound financial decision-making. Therefore, there is a strong positive connection between retirement planning and financial literacy.

Several researchers have investigated the relationship between financial literacy and retirement planning (Agnew, Bateman, & Thorp, 2012; Dhlembeu, 2018; Matemane, 2018; Niu, Zhou & Gan, 2020). These studies conclude a positive correlation between a high level of financial knowledge and the ability to successfully plan for retirement. However, looking at South African statistics only 6% of the population will be able to retire comfortably whilst more than 6% of the population would be deemed as financially literate (Dhlembeu, 2018).

Therefore, there is a gap in literature to argue that financial literacy does not necessarily indicate that one understands retirement planning and how to plan successfully for retirement. The following study aims to extend research around this notion in order to assist South Africans in successfully planning for retirement.

1.2 Research problem

The association between financial literacy and retirement planning has been extensively researched and applied to developed markets. Lusardi and Mitchell (2011) examine the relationship between financial literacy and retirement in the United States, Rooij, Lusardi and Alessie (2011) apply the same study to Netherlands and, Sekita (2011) to measuring this relationship in Japan. Overall conclusions support the notion that individuals with a greater understanding of financial management principles are able to make more prudent retirement planning decisions.

Historically, developing economies such as South Africa have not conducted comprehensive research on the association between financial literacy and retirement planning however, several recent studies around this relationship has emerged (Dhlembeu, 2018; Matemane, 2018; Nanziri & Leibbrant, 2018). Although limited studies have been concluded the overall findings are identical to developed market studies in that there is a strong positive link between financial literacy and planning for retirement.

According to the South African Labour and Development Research Unit, 63.5% of respondents to a survey that have a household income of more than R30 000 per month are financially literate compared to 34.1% of households who earn less than R5 000 per month. However, National Treasury suggest that only 6% of the South African population are in a position to retire comfortably. Therefore, there is an imminent need to understand why South Africans who are financially literate are not in a position to retire comfortably.

Therefore, this would lead one to ask the following question: Is there a direct association between financial literacy and retirement planning willingness in South Africa?

1.3 Research objectives

The study contributes to the lack of literature on financial literacy and making sound financial decisions toward retirement, as well as identifies the current gaps that hinder financially knowledgeable persons from adequately saving for retirement.

This study aims to determine whether financial literacy has a positive influence on an individual's ability to plan adequately for retirement and to assess why financially literate South Africans do not actively plan adequately for retirement. Knowledge on the relationship between financial literacy and making sound financial decisions around retirement will assist in identifying current gaps where one could see that South Africans are not planning appropriately for retirement. Hypothesis testing can be done on understanding if financial literacy leads to making sound financial decisions or not.

Therefore, the following objectives are presented in order to answer the research question:

- Determine whether financial literacy enables South Africans to make more informed retirement planning decisions;
- Determine what factors influences South Africans to not prioritise retirement planning despite being financial literate; and
- Determine areas of development that South African citizens need to consider when prioritising retirement planning.

Sub objectives of the research study include the following:

- Determine the level of financial literacy of middle- and upper-income earners in South Africa; and
- Determine the savings culture of South Africans and why savings is not prioritised

despite being financially educated.

1.4 Significance of the study

Intellectually, the study is significant since it seeks to add to the existing body of knowledge regarding the relationship between financial literacy and making wise financial decisions regarding retirement planning, a hitherto unexplored topic. South Africa is in desperate need of a solution to increase the population rate that can comfortably retire as it may find itself having to take care of these individuals through state welfare which could lead to additional economic pressures.

National Treasury (2015) indicates that South African household savings are at its lowest levels which will directly impact adequately saving for retirement. Reyers et al. (2015) explains that some challenges may include high retirement fund costs and pre-retirement cash withdrawals. However, to the best of the authors knowledge there is limited research done on assessing all contributing factors that relate to retirement unpreparedness.

The outcome of the study may assist both government and South African citizens into insights around retirement planning and why South Africans who are financially literate and possess the means to contribute towards retirement are not currently doing so. The study may further assist corporates both in the private and public sector to relook structures to assist individuals in understand the importance of retiring comfortably and how to ensure adequate planning takes place.

1.5 Delimitations of the study

The proposed study will use the data collected through an electronic survey in order to make inferences around the link between making sound financial decisions and retirement planning. Whilst the proposed sampling method aims to represent the South African population, the author will exclude those who are younger than 18 years of age.

In addition, the analysis will only consider respondents aged between 18 and 60 who are eligible to earn an income and save towards retirement. The survey will only be distributed on digital platforms and will therefore exclude any individual who does not possess a phone or internet connection in order to complete the survey.

1.6 Assumptions of the study

There are certain assumptions regarding the data and respondents underlying this study. The following assumptions apply to the respondents:

- The respondents participated in the survey anonymously and voluntarily;
- Respondents are able to read and comprehend the English language;
- South African law permits responders to retire at 60 years of age; and
- It is expected that respondents with well-managed funds have a stronger capacity to effectively plan for retirement.

1.7 Study layout

The first chapter begins with an introduction and summary of the study's greater context, research topic and objectives, significance, delimitations, and underlying assumptions. The remainder of the research paper is outlined below:

- Chapter 2 provides a comprehensive literature review:
    - The definition of and how retirement has evolved over the last decade;
    - Theoretical framework that underpins the concept of retirement planning;
    - Factors that influence retirement planning;
    - The notion of financial literacy and its association towards retirement planning;
    - Discussion on financial literacy and retirement planning within the South African context; and
    - Demographics that may influence a savings culture.
- Chapter 3 discusses the study's research methods:
    - The research design, philosophy, approach, and strategy are discussed;
    - Data collection process and method are presented;
    - Sampling strategy and time horizon is stated; and
    - Reliability, validity, and ethical considerations are defined and discussed.

- Chapter 4 provides a comprehensive analysis on the findings of the study using the indicated methodology:
    - Descriptive statistics on the sample are provided;
    - Tables, graphs, and figures are employed to aid findings from the study; and
    - Hypotheses are tested in order to achieved stated objectives.
- Chapter 5 concludes the study by presenting the final conclusions and recommendations obtained from Chapter 4:
    - Reasons for undertaking the research are discussed;
    - Results and findings from Chapter 4 are presented and discussed;
    - The contribution of the study is highlighted; and
    - Limitations and recommendations for further research are stated.

CHAPTER 2

Literature review

2.1 Introduction

The objective of the proposed study is to understand the current relationship between financial literacy and making sound financial decisions on retirement planning within a South African context. In the following section, literature that is pertinent to the study will be critically assessed and evidence provided on the knowledge gap that the study aims to fill.

In section 2.2, the definition of how retirement has evolved over the last decade is explored with the overall objective of providing a definition of retirement and its link to retirement planning within the context of this study. Section 2.3 goes onto explore the notion and theoretical framework that underpins the concept of retirement planning. In section 2.4 factors that influence retirement planning are discussed, these factors are governmental influence, rational, behavioural, and family construct. The notion of financial literacy and its association towards retirement planning is then explored in section 2.5. Section 2.6 discusses financial literacy and retirement planning within the South African context. Finally, section 2.7 discusses the various demographics that may influence a savings culture and preparedness around retirement planning these include 1) age 2) education and income level 3) gender and 4) race.

2.2 Defining retirement

A thorough review of literature suggest that the definition of retirement has evolved over the last decade. The reason behind this evolution is due to the shift in responsibility for retirement planning from the employer to employee (Agnew, Bateman, & Thorp, 2012). As a result, the evolution of retirement has had a direct impact on retirement planning. In this section the evolution of the definition of retirement over the past decade and its link to retirement planning is examined.

Retirement can be viewed as the stage in one's life where the individual choses to exit employment in the labour workforce with the intention to live off sources of income such as retirement savings, pension and provident funds that do not require one to actively work. According to Szinovacz, Chung, and Davey (2008) retirement can be viewed as the arranged ending of constant employment and therefore one no longer participating in full-time employment. However, the manner in which one goes through a profession today may be a result of many factors such as sabbaticals, career transitions, further studies, or family responsibilities (Dhlembeu, 2018).

Denton and Spencer (2009:66) suggest that retirement is the complete withdrawal from a remunerated working life which takes place in stages over the individuals life cycle as working hours are reduced to a point where the individual is no longer working. The researchers add that retirement can be categorised into several ranges which include: 1) non-participation in a labour force; 2) reduction of earning and/or hours worked; 3) hours worked or earning below a minimum threshold; 4) receiving of retirement income 5) exiting one's core employer; 6) changing careers or employment later on in life; 7) self-assessed retirement; 8) combination of the listed buckets.

Researchers Rohwedder and Willis (2010) explore the concepts of mental retirement and suggest that one could mentally retire when the human cognitive function no longer supports the ability to actively participate in the labour workforce. This notion is derived from studies on deterioration of the human brain leading up towards retirement and post retirement age.

Studies later on highlight the evolution of definition of retirement. Duberley, Carmichael and Szmigin (2014) indicate that two types of retirement exist which are 1) retirement as change 2) retirement as continuity. Retirement as change is characterised by retirees seeking new opportunities such as starting up a business venture, becoming a philanthropist or even attempting to further one's studies. Retirement by continuity is an individual not fully retiring as they have simply just reduced the workload and time spent working, these individuals often venture off into consulting of volunteer work.

Fisher, Chaffee and Sonnega (2016) define retirement as the phase or age at a point in time in which employees withdraw from their positions or career path. Retirement in this context relates to exiting the labour force either before, on time or post a specified point in time or age. Arears which impact the point in time in which one would retire are linked to individual, work, family, and other sociocultural factors related to the timing in the retirement process.

In a more recent study Wasik (2019) explains that the definition of retirement has evolved from stop working altogether and devoting time to leisure pursuits in the 1940s, to now having to work part-time during retirement in order to cater for retirement shortfalls due to poor retirement planning. Wasik (2019) highlights that over time responsibility on retirement planning has been placed more on individuals and with life expectancy increasing, individuals are not in a position to fully retire and may need to work post their retirement age.

Apouey (2020) has examined various literature overtime in order to ascertain a true meaning of retirement. The researcher concludes that retirement should be viewed as financial freedom in which one does not need to rely on any form of remuneration in order to finance day to day necessities and living expenses.

The above studies indicate that the definition of retirement has evolved over time and is subjective in nature as no agreed definition exists among the reviewed literature. Evolution of the definition of retirement has highlighted that historically retirement had been associated with a positive sentiment of no longer needing to work and to enjoy one's fruits of their labour. However, as the definition has evolved over the past decade and there is now a negative sentiment towards retirement as researchers highlight that this notion is now developed into elements of less work and not no work.

There are multiple factors that influence one's ability to retire. In South Africa, the usual retirement age ranged between 60-65 years however, employees cannot be forced to retire unless stipulated in their employment contracts (Makhetha, 2021). Apart from age, Alavinia and Burdorf (2008) suggest that chronic diseases and poor health further contribute towards individuals not participating in the workforces which forces one to retire. Further studies by Lumsdaine and Vermeer (2015) add that certain life events such as family responsibility may cause an individual to retire sooner than expected.

Therefore, reviewed literature indicates that the term retirement is subjective in nature with no agreed upon description among researchers (Dhlembeu, 2018). In the context of this study, retirement will be defined as the ability to cater for all living and survival expenses that are likely to be incurred during retirement without the need to rely upon funding from the South African government at the age of 65 until death.

2.3 The notion of retirement planning

Retirement planning is viewed as the way in which an individual structures their financial affairs for their immediate or future retirement needs. It is the act of planning for retirement to ensure that one has a source of income to cater for their survival needs during their retirement in the absence of employment.

The notion of retirement planning is underpinned by a theoretical concept of retirement savings which is based on the Life-Cycle Hypothesis (LCH) developed by Modigliani and Brumberg (1954). The LCH model predicts that individuals will gradually level out their spending patterns over the course of their life in an effort to maintain constant real consumption movements (Deaton, 2005). Over an individual’s life cycle there will be periods in which earning potential are high which will cause one to save a portion of those earnings as a fallback in order to maintain their standard of living during low-income periods such as retirement.

Modigliani and Brumberg (1954) further suggest that earning’s potential usually increases over ones working life as a result of career progression which leads to one having a greater ability to increase savings over time. However, when the retirement age has been reached, individuals will then sustain their lifestyles through use of the accumulated savings.

Mitchell and Utkus (2003) suggest that through the LCH model it is highlighted that individuals are rational planners of their own savings and consumption requirements over time. However, the way in which individuals rationalise this notion may not be truly realistic as many do not have the financial literacy in order to estimate and plan for future retirement needs. Further studies highlight those individuals in developed and developing countries have not adequately prepared for retirement due to poor retirement planning and therefore have insufficient savings upon retirement (Lusardi 2003; Burnett et al. 2018; Poterba 2014; Ghilarducci et al. 2015 & Foster 2017).

Reviewed literature highlights the interchangeable use between retirement planning and retirement preparedness. The previous section highlighted that the term retirement is subjective in nature and as a result the notion of retirement planning, and retirement preparedness is also subjective. Noone, Alpass and Stephens (2010) categorise retirement planning into two major categories namely: retirement thoughts and retirement preparedness. Retirement thoughts are linked to the actual plans that one derives when planning for retirement whilst retirement preparedness is associated with the actual investments accumulated and if these assets will support retirement years.

Lusardi and Mitchell (2007) explore the causes and consequences of being financially literate and its link to retirement planning to better understand the major reasons as to why households that are close to retirement have very little or no wealth accumulated. The study confirmed a direct link between financial literacy and retirement planning and/or preparedness suggesting that a lack of understanding financial fundamentals has a direct impact on one’s ability to accurately plan for retirement.

Segel-Karpas and Werner (2014) add that a study conducted in Israel demonstrated a direct link between retirement preparedness and financial literacy. The authors further add that a lack institutional support negatively impacts financial preparedness. Similar studies have been employed among various researchers and the result shows consistent evidence that supports that retirement planning is impacted negatively by low levels financial literacy (Brown & Graf, 2013; Boisclair, Lusardi, & Michaud, 2015).

Looking at the opposite spectrum, other researchers have linked the notion of retirement planning to retirement thoughts (Crossan, Feslier & Hurnard, 2011; Van Rooij, Lusardi, & Alessie, 2012). The researchers had identified that individuals who were not thinking or are having thoughts around retirement made those individuals psychologically ill-prepared for retirement. Nansubuga (2018) suggests that whilst thinking and preparing for retirement psychologically, it does not necessarily prepare one for retirement and further does not cause one to engage with preparation methodologies such as financial planning.

Therefore, studies suggest that one would need to ensure that retirement is being thought about and prioritised. Apart from thinking about retirement one must have a plan and action that will assist in ensuring retirement needs are met at a future date. The following study assesses both an individual's inclination towards prioritising and saving for retirement as well as the measures that one would put in place to achieve this.

A United Kingdom (UK) firm, The Office for National Statistic (ONS) forecasts that 30% of infants born a few years before 2016 are likely to live to 100-year-old. Figure 2.1 illustrates the number of persons for both genders that are predicted to live to survive to 100 in a developed country.

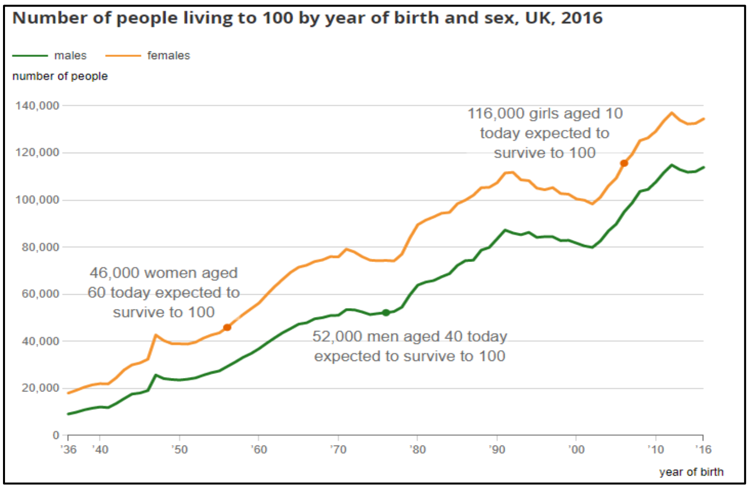

Figure 2.1: Number of people living to 100

Source: *ONS (2016)*

In South Africa, the increasing life expectancy trend is illustrated in Figure 2.2, which confirms an increasing trend in life expectancy for both males and females in line with the trend displayed for developed countries. This means that pre and post planning around retirement will remain critical as those who accumulate enough savings will then need advice around how to manage those savings for a longer period. Therefore, humans will start to live between 20-40 years longer post retirement and must prioritise retirement planning.

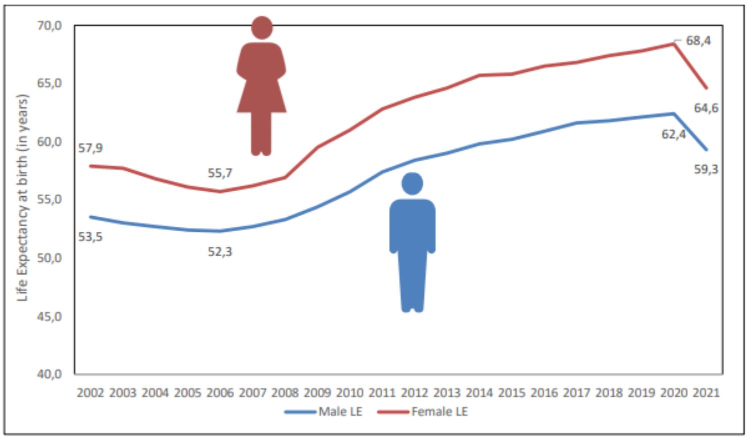

Figure 2.2: Life expectancy by sex over time, 2002-2021

Source: *Statistics South Africa (2021)*

Moffatti and Heaven (2017) explore the impacts of not adequately planning for retirement can have on human health during the retirement cycle. The authors conducted a quantitative study on men and women from urban and rural areas of North East England in the UK. It was determined that finance, health, and social relationships were required as resources in order to experience a satisfactory retirement and in order to ensure these resources were catered for one would need to have a strong retirement plan in place (Moffatti & Heaven, 2017).

Numerous populations such as researchers, financial institutions and government have examined and addressed the challenges presented around insufficient planning when it comes to retirement which leads to being unprepared during retirement. There are several discussions around determining the level of wealth that one would need to accumulate in order to be well prepared for retirement however, no exact approach has been confirmed (Butler, 2012).

One could argue that for an individual to be fully equipped for retirement one would need to have accumulated enough income generating assets that would meet all retirement needs during those retirement years. However, Butler & Van Zyl (2012) highlight that consumption needs during retirement vary among individuals which presents challenges around accurately determining retirement needs as this can change from person to person. Some individuals may require less funding during retirement based on their expenses and the manner in which retirement planning took place.

In South Africa, Matemane (2018) has demonstrated that black South Africans have a low degree of financial literacy compared to their coloured, Indian, and white peers. Figure 2.3 indicates that 81% of the South African population comprises of Black Africans. Therefore, one would need to solve for financial literacy as well as retirement planning as failing to do so will have direct impact on the South African government if these individuals are not prepared for retirement.

Population group	Male		Female		Total	
	Number	% of total male population	Number	% of total female population	Number	% of total population
Black African	23 761 051	80,9	24 879 278	80,9	**48 640 329**	**80,9**
Coloured	2 578 930	8,8	2 716 038	8,8	**5 294 968**	**8,8**
Indian/Asian	790 412	2,7	754 810	2,5	**1 545 222**	**2,6**
White	2 257 654	7,7	2 404 805	7,8	**4 662 459**	**7,8**
Total	**29 388 047**	**100,0**	**30 754 931**	**100,0**	**60 142 978**	**100,0**

Figure 2.3: Mid-year population estimates by group and sex in South Africa
***Source**: Statistics South Africa (2021)*

The notion of retirement planning has been studied over serval decades and continues to evolve over time as individuals needs regularly change. Whilst retirement planning is deemed an important notion, not all individuals prioritise retirement and savings due to various factors that may influence retirement planning. The next section discusses factors that have a direct influence on an individual's ability to adequately plan for retirement. These factors include governmental influence, family structures and behavioural factors.

2.4 Factors that influence retirement planning

2.4.1 Governmental influence

Governments across the globe over the years have gradually restructured and reformed the retirement and governmental framework by shifting the focus by implicitly and explicitly reducing the reliance on government benefits at retirement to encouraging private pension provisions. These reforms are executed through government by ensuring that those who are formally employed belong to a retirement scheme, influencing of tax consequences to encourage saving towards retirement and the introduction of various initiatives like the Old Age Grant system (OAG).

In South Africa, both government and some employers afford employees the opportunity to join a pension scheme for their full-time workforce. In addition to these contributions, individual employees are encouraged to make additional contributions towards the pension scheme. The premise under this notion, is to ensure that those who are formally employed will have guaranteed level of income upon retirement. Those who are not formally employed or self-employed often have to manage their own retirement savings through joining a pension fund scheme (Dhlembeu, 2018).

The previous section highlighted a low retirement savings rate and culture in South Africa. As a result of a low retirement savings culture, the South African government introduced retirement and tax reforms in order to promote and encourage South African residents to make better provisions for retirement (National Treasury, 2012). The objective of the mentioned reforms was to cater for weaknesses identified in the retirement system which negatively impacted South African citizens ability to adequately save for retirement. These negative impacts were influenced by factors such as high fees associated with retirement schemes, allowances for cash withdrawals pre-retirement or when changing employment, unequal treatment of various retirement fund options and withdrawals for emergencies.

A recent tax and retirement reform was published and implemented in December 2021 as a result of the developments and impact of the Covid-19 pandemic (National Treasury, 2021). The below highlights some of the benefits related with the newly implemented reform:

- Employees are only able with access one-third of their retirement savings in their lifetime;
- Two-thirds of retirement savings must be persevered until retirement;
- Introduction of automatic and eventually mandatory enrolment into retirement savings plan as some employers do not offer retirement or pension benefits;
- Encourage saving by having people make regular payments to a retirement fund while they are working;
- Preserve retirement funds as far as possible to fund benefits in retirement;

- Allow partial access to retirement funds to cater for periods of financial distress and improve flexibility; and
- Moving towards a flat deduction pension fund contribution scheme which would assist those in a lower income tax bracket to increase their net disposable income.

Along with these new reforms, South Africa had introduced tax-fee investments in 2015 with the objective of promoting and creating a household savings culture. Tax-free investments can only be offered by licenced financial institutions and the taxpayer is exempt from being taxed on the return of this type of investment (SARS, 2018).

The initial introduction of a tax-free investment allowed individuals to contribute a maximum of R30 000 per annum and capped at a lifetime contribution of R500 000. However, in 2021 SARS had amended the maximum annual limit to R36 000 per year whilst keeping the lifetime maximum contribution at R500 000 in order to promote a long-term savings culture (SARS, 2018).

As a result of the introduction of the tax-free investments it provided an added benefit to low-income households as they are able to participate in a relatively low-cost long-term investment. In addition, the tax-free investment allows individuals to supplement their retirement contributions at no extra cost. However, the main objective of the tax-free investment is to save towards retirement and therefore, the government has placed restrictions on the product to promote long term savings. These restrictions include limited emergency and premature withdrawals from the account, and should a withdrawal be done, an individual will then reduce their annual amount that can be contributed (SARS, 2018).

The tax-free investment reforms have strengthened overall retirement savings in South Africa and has further promoted South Africans to contemplate and plan for future retirement. Kunene, Makuwerere and Anthony (2017) conducted a study on the take up and acceleration of tax-free investments in South Africa. The study highlighted that approximately 460 000 investment accounts were opened since the introduction of the new reform in 2015. Furthermore, the study indicated that 13% of the accounts that were opened belonged to first time savers. Therefore, the introduction of the tax-free account reform has positively impacted the retirement savings culture in South Africa by increasing awareness among the South African population.

In conjunction with the above-mentioned amendments to legislation and the introduction of tax-free accounts, the South African government have implemented an Old Age Grant (OAG) which allow South African citizens who are 60 years or older and that do not have a source of income to receive a monthly stipend from the government. Van Dijk and Mokgala (2014) highlight that South Africa have sophisticated social grant system when compared to other middle-income countries and are on par with the likes of developed countries such as Sweden and Denmark. However, there has been much debate around the objective of the OAG and its current outcome as the intended objective is to assist pensioners without income whilst others argue that the introduction of social grants make people complacent and lower prioritisation towards retirement contributions (Magubu & Chitiga-Magubu, 2013).

Studies by Van der Berg et al. (2010) and Magubu and Chitiga-Magubu (2013) argue that although OAG has been popular, the number of dependants for this grant has seen significant increases. The researchers therefore argue that the young and unemployed households are becoming complacent and lack the motivation to find work which directly impacts these individuals' ability to plan for retirement (Dhlembeu, 2018). Although the OAG has assisted in alleviating poverty in South Africa, the program has also resulted in individuals being less incentivised to plan for their own retirement (Dhlembeu, 2018).

From the above discussion it is evident that government and its influence in legislation has a direct relationship with retirement planning. The next section explores other influences that contribute towards planning for retirement which include family backgrounds and retirement planning behaviour of individuals.

2.4.2 Savings theories: Rational and behavioural factors

There are several theories that discuss rational and behavioural factors in relation to savings and asset accumulation. Beverly and Sherraden (1999) have classified these theories into four main categories namely 1) neoclassical economic 2) psychological and sociological 3) behavioural and 4) institutional. The following section will explore these theories in relation to the study.

2.4.2.1 Neoclassical

The neoclassical economic theory in relation to savings are categorised by several shared assumptions. Firstly, humans are regarded as rational beings with the objective to maximise pleasure and minimise pain, and implicitly express that individual utility is a function of consumption (Beverly & Sherraden, 1999).

The second premise pertains to the gap between income and assets. Both of these variables are representative of an economic resource that can be used to finance consumption. However, neoclassical economists understand that people must make a choice between future and present consumption. The choices between present and future consumption are influences by an individual’s preferences and the persons opportunity set. Savings behaviour is anticipated to reflect a person’s preferences for the present versus deferring consumption and their income and wealth (Beverly & Sherraden, 1999).

The life cycle hypothesis (Ando & Modigliani, 1963; Modigliani & Ando, 1957; Modigliani & Brumberg, 1954) and payment income hypothesis (Friedman, 1957) are two of the most well-known neoclassical theories of savings. For the purposed of the study, the lifecycle hypothesis (LCH) is discussed as it is one of the more relevant and dominant savings theories.

The LCH theory was developed by Modigliani in 1986 under the premise that people understand their lifetime income and will saving towards retirement in their working years and disinvestment upon and post retirement. Under this notion, it is argued that individuals will aim to maintain the same standard of living throughout their life cycle. Xiao (2015) highlights that the premise under this theory is that the intention of an individual is to smooth out consumption over their life cycle, particularly towards retirement years.

Therefore, the LCH theory makes the assumption that individuals are financially knowledgeable and are rational decision makers who will proactively plan for retirement during their working years (Reyers, Van Schalkwyk, & Gouws, 2014). In order to level out consumption, individuals need to understand how to calculate and plan for future income and consumption. As such, one would need to have a basic understanding of retirement and financial planning in order to ensure the concept of LCH is applied.

Whilst the LCH theory assumes that individuals will be able to save towards retirement and cater for living expenses during retirement one can debate that the actual savings rate towards retirement in South Africa is relatively low. The Sanlam Benchmark 2021 report indicates that less than 10% of the South African population has made sufficient provisions to retire comfortably at the age of 65.

Therefore, one must investigate the behaviour attitudes and rational towards saving for retirement. The next section discusses behavioural aspects that are underpinned by psychological and sociological factors.

2.4.2.2 Psychological

The psychological element of saving refers to an individual's capacity and propensity to save. These two variables are significant drivers of saving and play a significant role in the psychological category of savings theories (Beverly & Sherraden, 1999). Some individuals are less able to defer consumption because they are less eager to defer consumption, in accordance with this psychological theory.

Beverly and Sherraden (1999) highlight that there are various obstacles that individuals are faced with during their lifecycle that will negatively impact their ability to save versus their willingness. Savings is viewed as the disposable income left over once consumption has been deducted. The researchers add that individuals will have a certain level of consumption that is necessary for survival and if one does not have income above this level, one would not be able to save since survival needs cannot be deferred (Wang, 1995; Birdsall, Pinckney & Sabot, 1996; Bunting, 1997).

Financial knowledge and understanding play a key role in the psychological aspect for those who have both the ability and willingness to save. Beverly and Sherraden (1999) suggest that whilst some individuals may have a favourable opportunity in saving, if those individuals lack or have a limited understanding relating to their pensions, those individuals may not realise the financial benefits of actively participating in the financial markets.

Lastly, motives for savings are linked to the psychological aspect of willingness versus the ability to save. Beverly and Sherraden (1999) speculate that the overall motive for saving is one’s desire to better or maintain their current standard of living. The researchers highlight four key motives for saving which include 1) to maintain consumption during income fluctuations specifically at retirement and during retirement 2) ensure preparedness for shocks in income such as emergencies 3) a wanting to transfer wealth to future generations 4) the wanting to purchase big ticket items such as paying for education.

2.4.2.3 Sociological

The sociological element is viewed as various social situations that may impact one’s willingness to save. These situations include social reference groups, socio-economic links to the neighbourhood or country in which one resides in, social learning and the norms of an individual’s reference group.

Beverly and Sherraden (1999) highlight that individuals have differences in economic socialisation and social learning therefore, it is highly likely that low-income individuals are exposed to less of a savings culture and more of a survival culture and will eventually pass this culture down to future generations. For individuals who are higher income earners and have the ability to save will pass down a savings culture towards the future generations.

A survey conducted by Arnold (2018) indicates that 57% of the respondents admitted to making impulse buys due to social media influence as a fear of missing out is the main driver as how these individuals act now and spend as opposed to saving. Therefore, social norms that have been created by social media negatively influence the savings behaviour of individuals.

Apart from rational norms and characteristics, behavioural characteristics play an important role in supporting one’s willingness to save. The next section discusses the theory of planned behaviour and its relation to saving.

2.4.3 Theory of planned behaviour

Fishbein and Azjen (1975) were the pioneers behind the theory of planned behaviour. Under this premise the researchers attribute human behaviour to three main categories namely 1) attitudes towards behaviour in question 2) perceived control and 3) the subjective norm.

Xiao (2015) viewed attitude as the positive or negative awareness towards specific behaviour and the beliefs held in respect of the performing behaviour. The subjective norm is linked to the approval or disapproval of the behaviour by important individuals (Dhlembeu, 2018). Lastly, the notion of perceived control is associated with the level of difficulty associated with specific behaviour.

Therefore, in summary, the association between the highlighted factors is that a highly positive attitude towards a task and the degree of approval from an individual’s social circle will result in a positive outcome and easier to perform the specific task (Xiao, 2015). According to Xiao (2015) an individual and those around that individual should express a positive attitude towards retirement planning in order for that individual to make a planned decision and actively prioritise retirement.

In addition to rational and behavioural factors discussed in the above section, family construct plays a pivotal role in the influence it has towards an individual actively planning and prioritising retirement. The next section discusses family constructs and the impact it has towards decision making for retirement planning.

2.4.4 Family constructs

Studies by Tamborini and Purcell (2016) highlight that a household construct will have direct implications on savings and planning towards retirement. Family structures and its impact on planning for retirement has been extensively researched in the field of economic behavioural finance. Dhlembeu (2018) expresses that economic behavioural finance can viewed as the field of study that examines factors linked to social, psychological, environment and cultural factors that influence financial decisions of an individual. A family structure and household can be used interchangeably and refers to the construct of a household and how that household would manage finances as a collective.

Family structures that are led by single mothers often find it challenging to cater and plan for retirement as single mother will likely carry the financial strain to provide for the family in their individual capacity. The financial strain results in single mothers having to place less importance on savings as the overall wealth of the household is generally low. Tamborini and Purcell (2016) suggest that more focus is placed on items such as children's education and other immediate needs versus prioritising their own retirement.

A dual income household will generally have accumulated more wealth and therefore both individuals (husband and wife) are able to cater for survival needs, savings for children's education and prioritisation of retirement planning for the entire household. Apart from a dual income household, the number of dependents may also have an influence on planning for retirement for the household. As the number of dependants increase so does the overall household expenditure which results in a decrease of disposable income and the household placing less emphasis on retirement planning. The dependants include the elderly, children, and other family members such as grandchildren.

In summary, the above section highlighted areas that may negatively influence an individual's perception around prioritising retirement. These included government influence, behavioural and rational factors and finally family or household constructs. The next section will discuss the role of financial literacy in retirement planning.

2.5 The role of financial literacy in retirement planning

The notion financial literacy has been used by many including policy makers and scholars however, there is no evidence of a universal definition. Louw et al. (2013), Bucher-Koenen & Lusardi (2011) and Huston (2010) highlight those terms such as financial culture, financial capability, and financial insight can be used interchangeably.

Reviewed literature suggests that there are several definitions that are linked to financial literacy and therefore no specified definition exists.

Although a wide range of definitions to financial literacy exist, majority of these definitions highlight a commonality of themes that emerge. The themes that the author has extracted are concepts of 1) financial well-being 2) informed decision making 3) skillset and knowledge to make analytical inferences. For the proposed study the author defines financial literacy as the combination of financial knowledge, analytical ability, and awareness of behaviours in order to make an informed and sound financial decision which will positively contribute an individual aiming to achieve financial freedom (OECD, 2011:3).

Further examination of existing literature suggests that due to the absence of a universally accepted definition there is no direct measure that can assess if one is financially literate or not (Huston, 2010; Brown & Graf, 2013). Various studies have made use of structured surveys and questionaries to determine specific concepts such as risk and return, inflation, compound interest and portfolio diversification (Boisclair et al., 2015; Moure, 2016). Therefore, one could use these financial concepts that underpin financial literacy as a standard measure.

From a South African perspective, many studies have been concluded in order to assess the level of perceived financial literacy through online questionaries and surveys by private and public institutions. Louw et al. (2013) explores the financial literacy requirements of third-year students in a South African university through means of a survey in which questions around financial planning, taxation and banking were studied. Oseifuah (2010) examined the level of knowledge around interest rates and its link to financial literacy. Finally, Fatoki (2014) studied four specific areas related to financial literacy which include the understanding of money management principles such as saving, investing, income and expenses.

Therefore, the study makes use these key themes in order to assess the level of financial literacy when conducting the survey. These will include understanding around certain concepts such as inflation, risk, diversification, financial planning, taxation, saving, investing and cashflow.

2.5.1 Financial literacy and making sound financial decisions

Over the past decade there has been a surge in differentiation and the number of financial products in order to meet evolving financial needs of consumers. However, Murendo and Mutsonziwa (2017) suggest that consumers do not use these products correctly as their knowledge around finances remain limited. Hussain and Sajjad (2016) advocates that there is a direct link between having a high level of financial literacy and sound financial decision-making.

Scheresberg (2013) conducted a study that indicates individuals with a low level of financial literacy can negatively impact their day-to-day money management principles which include spending patterns, savings patterns and borrowing patterns. The study further highlights that retirement planning may be affected by one’s level of understanding of certain financial topics which relate to debt levels, spending behaviour and the ability to save.

Additional factors that may contribute towards making sound financial decision for retirement include over indebtedness (Hussain & Sajjad, 2016). Being over indebted has become an increasing trend as consumers spend more than they earn. A study by Xu and Zia (2012) highlights that individuals who are accustomed to financial management principles are less likely to take up debt. This notion is supported by Hussain and Sajjad (2016), the researchers add that consumers who are financially literate and understand money management principles are less likely to take up high levels of debt or face challenges around managing debt as opposed to financially illiterate individuals.

Therefore, one can deduce from the above reviewed literature that individuals who do not have a strong understanding of financial and money management principles tend to make decisions that may be detrimental towards planning adequately for retirement.

Other studies indicate that financial literacy does not necessarily indicate that individuals make better financial decisions when it comes to spending and retirement planning (Shambare & Rugimbana, 2012; Lusardi & Mitchell, 2014; Murendo &

Mutsonziwa, 2017). Huston (2010) points out that factors such as impulsiveness, biases and social trends may influence a financial literate individual to make poor financial decisions. The next section will examine studies that have been conducted on retirement planning within a South African context.

2.6 Studies on retirement planning in the South African context

While the topic of retirement planning has gained traction in South Africa, little study has been conducted on the relationship between financial literacy and individuals' ability to make informed decisions around retirement. Studies have highlighted a direct relationship between the level of financial literacy and one's ability to adequately plan for retirement however, research indicates that individuals who are financially literate are still not in a position to retire comfortably. Therefore, one needs to assess the willingness and ability to save towards retirement and why this concept has not been prioritised within the South African context.

Nkoutchou and Eiselen (2012) conducted an exploratory study which investigated the behaviour of young adults in relation to planning for retirement in South Africa. The study was conducted through a survey and results indicated that young adults in South Africa have a wide variety of debt which impact one's ability to ensure sufficient savings are allocated towards retirement. However, the study did not cater for young adults who have low debt levels and who are still not adequately savings towards retirement. The overall study suggested that organisations should encourage young adult staff to reduce overall debt levels and increase voluntary contributions towards retirement.

In another study conducted by Butler (2012) indicated the importance of understanding retirement adequacy goals for South African households. The premise for this study is that little research has been done to accurately determine how much one would need to have at retirement in order to cater for living expenses during retirement. Findings from the survey suggested that household wealth earnings ratio were estimated to be between 10.5 and 18.2 times an annual salary. The factors that determined the ratio included household income, age, number of dependents, education level, home ownership and salary support. Therefore, a South African household would need to determine the amount required at retirement by multiplying their salary based on the ratio. However, the study did not assess one's willingness or ability to save according to the predetermined ratios.

Reyers et al. (2015) examined factors that impact retirement preservation decisions and the link between financial literacy in making these decisions. The study found that financial literacy did not have a strong influence on an individual's decision regarding retirement preservation and the impact of financial literacy on the decision was minimal. Therefore, the study assumed that individuals have already started planning for retirement and did not consider the factors that influence the actual decision to start planning and prioritising retirement.

An extension of the study by Reyes et al. (2015) was then conducted by Reyers (2016) and explored the role that financial literacy played in assisting individuals with making financial decisions. Findings suggested a positive correlation between financial literacy and making sound financial decisions however, the study did not assess the association between financial literacy and its link to making sound financial decisions towards retirement.

Antoni et al. (2020) assessed the relationship between financial literacy and retirement among government employees in the Nelson Mandela Bay region who participate in the government's retirement plan. Utilizing a closed-ended survey, exploratory retirement planning factors were determined. The majority of respondents had a high degree of financial awareness, particularly with regard to retirement products and investing concepts, as revealed by the final findings. In addition, the survey indicated that respondents had a high level of financial numeracy and that there is a positive relationship between financial literacy and retirement planning. However, the study failed to address the respondent's present retirement status and assess if they are saving properly for retirement, despite the fact that they had the requisite abilities.

In conclusion, the above-mentioned studies have highlighted that the relationship between retirement planning, and financial literacy has been studied extensively. The primary theme emanating from these studies is that there is a positive relationship between financial literacy and retirement planning. However, all the studies mentioned did not assess the actual reality of whether those individuals who are financially literate are in a position to retire comfortably or adequately prioritising retirement savings. Therefore, the study aims to bridge the identified gap in literature and understand why individuals who are financially literate do not prioritise retirement savings.

2.7 Socio demographics and its link to retirement planning

The notion of socio-demographics refers to the characteristics of a population. These include social attributes of individuals such as geographical location, age, education level, gender, and race. For the purpose of the study the socio-demographics that are assessed are the following 1) gender 2) income levels 3) race 4) education and 5) age. Reviewed literature suggests that the selected socio-demographics have a direct impact on making sound financial decisions towards retirement planning. The following section aims to examine whether the selected groups are likely to be impacted within a South African context.

2.7.1 Age

Retirement planning has been a key concern for many individuals following the transition from an employer carrying the responsibility to the employee who is now responsible for their own retirement planning. A study conducted by Rameli and Marimuthu (2018) explore the attitudes of individuals towards retirement and confirm that age plays an important role in the retirement planning process. Moure (2016) identified a similar trend as the researcher confirmed that various age groups have a direct impact on retirement planning due to factors such as financial knowledge, life experiences and exposure. Therefore, research confirms a direct association between age and retirement planning.

Rameli and Marimuthu (2018) highlight findings from the study that indicate individuals are not planning for retirement from early years of employment and start to prioritise retirement planning closer to retirement age which highlight a trend of retirement planning increasing with age. The premise behind this notion is that individuals are more likely to start thinking about retirement when approaching retirement age as the reality of actual retirement starts to sink in. On the opposite spectrum, students and individuals who enter the working place for the first time tend to not prioritise retirement as there is a perception that retirement is far off from their current age (Lou et al., 2013).

A study conducted by Moorthy et al., (2012) examined factors that influence retirement planning behaviour for working individuals. The study identified several trends that influence retirement planning which included, age, education, and income level. Age proved to have a direct relation to education level and income level of individuals which directly influence their attitudes towards retirement planning.

Gale, Gelfond and Fichtner (2018) highlight that multiple factors must be consider with reference to age and retirement planning. Individuals have a greater life expectancy and therefore must ensure that retirement planning must be prioritised during the early stages of an individual’s working career. Although Millennials have advantages such as flexible working arrangements, higher income levels and ability to delay retirement years, there are disadvantages that are also evident which include marrying and bearing children in later years (Gale et al., 2018). Therefore, age is an important sociodemographic factor when assessing the behavioural traits of individuals towards retirement planning as studies suggest that younger generations are not actively planning for retirement in their early years.

2.7.2 Education and income levels

Xu and Zia (2012) express that a positive correlation exists between level of education and financial literacy. The higher the education level of an individual indicates the increased likelihood of those individuals being more financially literate. In South Africa only 5.9% of the adult population have a degree as their highest level of attainment (Khuluvhe & Negogogo, 2021). However, Dhlembeu (2018) argues that despite some countries showing higher levels of education, financial literacy is still a worry.

Further studies by Shambare and Rugimbana (2012) indicate that financial literacy levels among individuals are moderate with a higher level of education. The study was done on a sample of educated individuals and results indicated that overall financial literacy levels were at a moderate level. Therefore, there will be a direct impact towards planning for retirement as studies highlight a positive correlation between financial literacy and retirement planning.

Further research demonstrates that the amount of education and financial literacy are significant contributors to retirement planning success (Moure, 2016; Bucher-Koenen & Lusardi, 2011; Lusardi & Mitchell, 2011). These studies reveal an association between low levels of education and financial literacy. Consequently, there is a strong positive correlation between retirement planning and educational achievement. It demonstrates that educated individuals recognize the necessity and significance of retirement preparation.

Ali and Jalal (2018) explored the perception of students about education and investigated the link between higher education and employment. The study suggested that higher level education is a strong predictor of good or better employment. This notion is confirmed by Noone et al. (2010) which suggest that if an individual has a higher-level qualification, that individual is more likely to be employed and earn a higher income. Therefore, the level of education can support better occupations which are directly linked to having a higher income and better ability to save and plan towards retirement.

On the opposite end of the spectrum, those who have lower levels of education and less likely to obtain better employment or any form of employment (Ali & Jalal, 2018). An individual or household that has less, or no source of income are less likely able to cover all household expenses or expenses related to survival needs. The inability to cover household expenses adequately result in less income left over to save and plan for retirement which increases pressure on any shortfalls for retirement planning. Xiao (2015) explains that lower income earners are less likely able to save towards retirement as daily expenses and survival needs are prioritised. Higher income earners are able to save more towards retirement.

Individuals who cannot support immediate survival needs will not focus or act on planning for future financial needs until survival needs are addressed. The premise is in line with the lifecycle hypothesis as the theory suggests that as income grows the savings ratio of that individual will increase.
In summary, reviewed literature suggests that the level of education has a direct impact on one's ability to generate higher income which would cover all survival needs and

create the ability to save more towards retirement. The level of education has a further positive link to financial literacy and understanding around retirement planning.

2.7.3 Gender

Across the globe, females are expected to live longer than males. Statista (2019) indicate that over the period 2009 to 2019 there has been a general increase in life expectancy for females in South Africa. The life expectancy for a male who had been born in 2009 will have an expected life of 60.73 years compared to 67.68 for females in South Africa (Statista, 2019).

With this notion in mind, one must highlight that females should increase preparation towards retirement planning as they would have a longer life expectancy and would need to ensure additional planning in order to cater for household expenses at and post retirement. However, reviewed literature suggests that females are less prepared for retirement when compared to males which will be explored below.

Sekita (2011) explored the notion of financial literacy levels in Japan. The study revealed that females had the lowest financial literacy scores when compared to males. Concepts such as interest rates and risk diversification where not answered correctly and highlighted that females who were young and who have lower levels of income and education had the lowest levels of financial literacy (Sekita, 2011).

In 2013 the OECD conducted a study in several countries to understand the need for financial education among women. The study indicated that only 49% of women in the United Kingdom (UK) understood the concepts of compound interest compared to 75% of males. Results further confirmed a similar trend of low financial literacy levels in Poland, Malaysia, and the United States (US) with 60%, 85% and 32% respectively.

Boisclair, Lusardi and Michaud (2015) confirm the findings of the above studies. The researchers conducted a survey to understand how financial literacy levels and the link to retirement planning. Findings suggest that financial literacy levels were low among women and that these women were less likely to have retirement savings.

It can be argued that the reason for low financial literacy levels among women is due to the fact that in most households, the male will usually run with all financially related matters and that female have no interest in the financial affairs (Brown & Graf, 2013).

In conclusion, reviewed literature suggests that historically women have generally been less financially prepared when compared to men due to the various circumstances that have been listed above. The next section explores race as a socio demographic and its link towards retirement planning.

2.7.4 Race

South Africa is known for its history in overcoming the apartheid regime where non-whites were negatively affected through exclusion (Ulriksen, 2020). During the apartheid regime both upbringing and cultural differences of individuals were severely impacted which has a direct influence on the willingness and ability to successful plan for retirement. A study by Lusardi and Mitchell (2011) confirmed that the African American (black) populated scored lower for financial literacy as opposed to the white population. This notion is further confirmed by Dhlembeu (2018) as the study highlighted higher financial literacy levels and preparedness of the white population when compared to the African population.

Struwig et al. (2013) indicate that a study on financial literacy and savings levels show that various racial groups have different savings and retirement planning patterns. The study confirmed that 77% of the white population were in agreement that household budgets and financial planning where important when compared to 48% of the African population that was studied. Therefore, it is evident that due to the long-term effects of apartheid it has affected financial literacy and retirement preparedness of the African population as they are less prepared that the other racial groups.

Another negative impact toward Africans planning and saving towards retirement is the notion of “black tax”. Magubane (2017) explored the meaning of “black tax” and its implications on increasing living expenses for the African population. The study confirmed that “black tax” refers to both economic and social support such as money, shelter, clothing, and food. In addition, the study confirmed that personal development, savings, and investment are all negatively impacted for Africans due to this notion.

Further to this, Magubane (2017) conducted a study on South African students with a commerce tertiary qualification and concluded that those with a commerce qualification are more financially literate that those who did not complete a tertiary qualification. The researchers' findings also confirmed that black South Africans are less financially literate than coloured, Indian, and white counterparts.

In summary, race has had an impact on financial literacy and retirement planning due to the historic events which had an influence on various races over the years. Therefore, the findings in the study may suggest that Africans have a disadvantage due to historical background.

2.8 Summary

The reviewed literature indicates that there has been a plethora of studies that examine the relationship between financial literacy, spending behaviour and retirement planning. A common trend that is exhibited is the positive correlation between financial literacy and retirement planning indicating that those who are financially literate should be more prepared for retirement. However, statistics indicate that individuals are not prioritising retirement and are at risk of not having saved enough to adequately supplement living expenses post retirement age (National Treasury, 2021).

The above notion provides scope for scholars to debate these trends and understand how financial literacy translates to an individual prioritising and having the willingness to adequately prepare for retirement. There are several factors that may impact an individual's ability to contribute adequately towards retirement which include personal circumstances, social media influence and household dynamics. The association between financial literacy and the willingness to prioritise retirement in isolation has not been investigated within a South African context. The next chapter describes the research design and methodology used to establish the study's overall objective.

CHAPTER 3

Research design and methodology

3.1 Introduction

The overall objective of the study is aimed at identifying factors that influence a South African citizens' willingness to adequately prepare for retirement whilst being financially literate. Therefore, assessing the relationship between financial literacy and the willingness to make sound financial decisions towards retirement which is done by testing the following hypothesis:

- H_0: There is no relationship between financial literacy and the willingness to make sound financial decisions towards retirement savings; and
- H_A: There is a significant positive relationship between financial literacy and the willingness to make sound financial decisions towards retirement savings.

The following study conforms to the positivist research philosophy because it is quantitative and objective. The purpose of this study is to evaluate the association between financial literacy and the capacity to make prudent financial decisions regarding retirement savings. Using the research onion represented in Figure 3.1, the most appropriate research design for the study is determined after explaining the research philosophy, approach, strategy, choice, time horizon, and data collection method.

This chapter describes in depth how the technique employed in the study was implemented to address the research problem and achieve the research objectives. The chapter also explains the research design used to appropriately define, analyse, and draw conclusions from the obtained data.

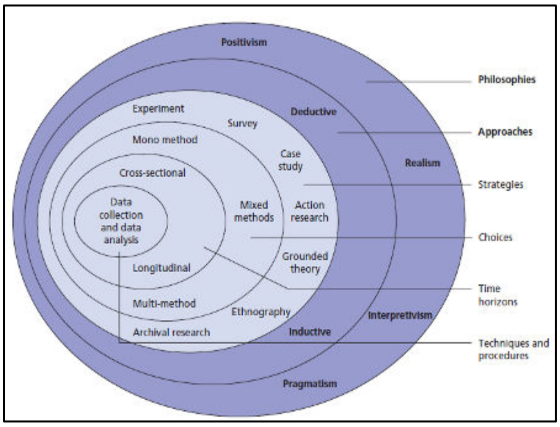

Figure 3.1: The research onion

Source: *Saunders et al. (2008)*

This section is structured and addresses the following: Sections 3.2 and 3.3 focus on the methodology and philosophy of the research. In Sections 3.4 and 3.5, the study's research strategy and methodology are described. The remainder of the section tackles key topics such as research selection, data analysis, study constraints, and ethical considerations.

3.2 Research design

Creswell (2012:295) indicates that study design is a quantitative, qualitative, and mixed techniques approach type of investigation that 'will provide a specific direction for procedures in a research study'. Research design can be viewed as an overarching strategy for answering a specific research issue (Saunders et al., 2009). This study fills a gap in the literature addressing South Africans' willingness and capacity to make wise financial decisions around retirement planning while being financially knowledgeable. The approach to research design is quantitative in nature and uses a survey to collect primary data. A positivist research philosophy is used, and the study employs a deductive and exploratory methodology, as described in the next section.

3.3 Research philosophy (positivism)

Saunders et al. (2009:107) expresses that the research philosophy relates to the expansion of knowledge and the nature of that knowledge. The various philosophies that one could explore include realism, interpretivism, positivism and pragmatism. The following study adopts a positivist approach.

The philosophy of positivism assumes a philosophical stance of the natural scientist (Saunders et al., 2009). Adopting a positivist research philosophy assumes that one will work with an observable social reality which the end product of this type of research can be 'law-like generalisations similar to those produced by the physical and natural scientists' (Remenyi et al. 1998:32). This study adopts a positivist research philosophy as scientific principles will be used in the collection and gathering of data and making statistical inferences whilst keeping in mind that the reality is not directly linked to the underlying theory.

Hammersley (1993) describes a positivist research philosophy as one that is grounded on physical science and may assume a natural scientist's standpoint. In accordance with this concept, data is collected on an observable reality, and any patterns or causal relationships within the data are identified in order to develop law-like generalizations (Gill & Johnson, 2010). Hughes (2010) argues that positivism holds that the universe is regulated by permanent, universal principles and that all events around us can be explained by knowledge of these principles.

Therefore, the study adopts a positivist research philosophy as the objective is to gather data on South African citizens to determine levels of financial literacy, spending behavioural traits and its link to adequately planning and saving for retirement. The next section discusses the research approach adopted by the study.

3.4 Research approach: Deductive (mode of reasoning)

Saunders et al. (2009) emphasize that a research approach may be deductive or inductive. The deductive approach is associated with scientific study and involves the expansion of a theory that has been subjected to rigorous testing, whereas the inductive approach seeks to build upon theory (Saunders et al., 2009). According to Saunders et al. (2009), many types of quantitative research begin with a deductive approach, in which the researcher adopts a clear theoretical position or premise that can be tested through the collection of data and is theory-driven. Consequently, a requirement must exist to explain the causal links between two or more variables.

The proposed study will adopt a deductive approach as it aims to test a hypothesis that financial literacy leads one to being able to willingly plan and save for retirement and is quantitative in nature. Saunders et al. (2009) further adds that generalisation is a characteristic of a deductive approach, and the study should have a sufficient sample size in order to make statistical inferences around human behaviour. In this study, the author uses a sample size of 300 respondents. The next section will discuss the methodology that the study adopts.

3.5 Research strategy

The research strategy is the way by which the researcher intends to perform the study, and it must correspond to the research methodology that the researcher has selected. As previously mentioned, the study adopts a deductive approach and is exploratory in nature. Saunders et al. (2009) explains that there are numerous research strategies that one could use in conducting their study, some of which include experiments, surveys, case studies and archival research.

In the following study the author uses a survey as it is the common method used when using a deductive approach and is widely used in business and management research as it aims to answer the who, what, where and how much type of questions. The survey methodology is authoritative in nature and allows one to collect quantitative data and to apply descriptive and inferential statistics (Saunders et al., 2009).

The survey method makes use of a structured questionnaire in order to understand the present levels of financial literacy among several demographics and the willingness and ability to plan and save towards retirement. The type of questions is quantitative in nature as the study aims to understand the relationship between financial literacy and its link to an individual in making sound financial decisions towards saving for retirement.

The study makes use of a platform called Survey Monkey which is a free survey application that allows one to conduct surveys electronically. The survey consists of four parts which include 1) Demographics 2) Financial Literacy 3) Retirement Planning and 4) Spending Behaviour. Demographics explores variables such as age, gender, income level and location. Financial literacy determines the current level of understanding certain financial aspects such as diversification, interest, risk and return and inflation. The retirement planning section explores individuals' awareness, willingness, and ability to save towards retirement. Finally, spending behaviour explores behavioural traits of individuals that link towards making financially savvy decisions that will have a positive influence on saving towards retirement. The next section discusses the research choice used in the study.

3.6 Research choice

Figure 3.1 highlights the various research choices one can adopt in a study which include mono, mixed and multi methods. A mono method employs a single data gathering approach, whereas multiple methods employ numerous data collection techniques to solve the study issue. Curran and Blackburn (2001) advocate the use of a multiple method in where a single research study could adopt qualitative and quantitative techniques.

The research study makes use of the mono method technique as the survey aims to collect quantitative data using a single collection technique in order to determine the level of financial literacy and the reason behind individuals not planning for retirement despite being financially literate.

3.7 Data collection

The section that follows describes the type of data obtained for the study as well as how the data was analysed. The benefits and drawbacks of using primary data are discussed. The rationale for the data selection and the data's time horizon are explored

3.7.1 Data collection method

According to Zikmund, Babin, Carr, and Griffin (2012:19), data are only facts or recorded measurements of particular occurrences (objects, events, etc.). Zikmund (2003:115) adds that data can be viewed as 'unstructured information in a raw format that can take the form of numbers, conditions, objects, and concepts.' According to Saunders et al.

(2009:669), data are ‘collected facts, opinions, and statistics that have been documented for reference or study.’ Consequently, data can be considered either raw or processed information.

According to Adams et al. (2007), data might be either primary or secondary. Primary data are currently unavailable data that must be gathered by questionnaires, interviews, or experiments (Saunders et al., 2009). According to Vartanian (2011:175), secondary data is ‘data acquired by an individual other than the researcher conducting the research, which indicates that the data exists in either a raw or published format.’ To comprehend the association between financial literacy and an individual's propensity to save for retirement, one must utilise primary data..

Kabir (2016:205) outlines the advantages and disadvantages of using primary data as a data collection method. The advantages include:

- The data collected is specific to the problem statement identified and tailored to answer the problem in the study;
- Ease of collection the data when using the survey methodology as online platforms have created speed and simplicity during construction and distribution of the survey;
- Data collected is relevant, authentic, and up to date with a relatively low cost; and
- Can lead to new discoveries.

Disadvantages include:

- The data may require some time in order to gather all insights and responses;
- It requires the research to determine what is relevant to the study therefore, one must understand the why, who, what and when to collect the data;
- Ethical considerations must be address in order to ensure protection of participants in the study; and
- Ensuring that the data is of high quality and free from bias or inaccurate responses from participants.

The study makes use of a primary data collection method through a structured survey done on a platform named Survey Monkey. There are four main sections in which primary data is collected using a quantitative approach.

Section 1 of the survey explores the demographics of the sample which include questions around age, gender, race or ethnicity, nationality, province in which the respondent resides, marital status, number of dependants, income, and education level. The respondents have multiple-choice options in order to advice which response is most pertinent and that falls within the ambit of this study.

Section 2 then goes on to test the level of financial literacy of the respondents through a series of questions that only have one correct answer. These questions are designed to determine knowledge around core concepts that relate to financial literacy and its link to retirement planning. The questions addressed knowledge around core principles such as general division, inflation understanding and application, interest concepts and finally understanding around risk and return in financial markets.

This section of the survey gave the respondents an immediate score once completed on the percentage of questions answer correctly as this will guide the level of financial literacy and general knowledge around these concepts. For the study a score of 90% or more indicates that the participant is financially literate and understands certain concepts that link to planning and saving for retirement. These questions explored both simple and complex financial knowledge adopted from Lusardi and Mitchell (2006) and Matemane (2018).

Section 3 assess awareness, willingness, and ability towards retirement planning. The questions are designed to understand what the actual reality around attitudes towards retirement is compared to what the respondent current understands around retirement. Questions were designed to understand what the current belief around retirement planning is and what the respondent is actually doing with their retirement planning.

The section also tests for awareness of certain retirement principles such as knowing where to locate a pension fund benefit statement, how to read the pension benefit statement and if there is a negative impact how to mitigate against this. In addition, the questions further address how individual perceive they will retire and what assets are used to supplement living expenses at and post retirement age. Confidence levels around respondents’ current retirement plan is also tested.

Finally, section 4 of the survey is designed to assess sentiments and attitudes towards an individual’s spending behaviour. The questions are aimed at understanding the reality of spending behaviour compared to the perception of what good spending behaviour should be. Respondents are exposed to questions that allow them to reflect on budgets, sticking to a plan around money management, credit utilisation and lifestyle spending patterns. Although the question has been tailored to achieve the intended objective of the study and answer the problem statement, the notion behind this section is adopted from Beckmann (2013).

The survey further assess social media influence on spending patterns and behaviours as this is a relatively new notion. Appendix A contains the structure and survey questions that were sent out to the respondents. In the next section, data analysis on the study is discussed.

3.7.2 Data collection process

The following study adopted a survey methodology in which a structured questionnaire was developed using Survey Monkey as the platform. Once the survey had been constructed it was distributed through various social media platforms which include LinkedIn and WhatsApp. Survey Monkey offered a feature in which a hyperlink to the survey can be generated and allows respondents easy access to the survey using their mobile phone. Within the first day of distribution, the survey had received 75 responses on the 27th of April 2022. A reminder was sent out on the 29th of April 2022 which saw responses increase to 125. The sampling method which will be discussed in detail in the following section used a convenience sampling methodology.

3.8 Data analysis

The overarching objective of the study is to discover the elements that influence South

Africans' willingness to effectively plan for retirement while maintaining financial literacy. Consequently, evaluating the association between financial literacy and the propensity to make wise financial decisions in order to save for retirement. In order to fulfil the study's desired purpose, both inferential and descriptive statistics are employed for research and will be explained in the next section.

3.8.1 Descriptive statistics

Descriptive statistics enable one to describe, compare and summarise variables in a numeric form. According to Adams et al., (2007:171) descriptive statistics can assist with summarising and understanding of the data concerned and can be represented through graphical display or tabular form. Therefore, descriptive statistics assist to organise and summarise data using numbers and graphs through the research process.

Saunders et al., (2012) suggest that the common measures used to describe a variable include:

- Measures of central tendency (mean, median and mode);
- Measures of variability (range, variance, and standard deviation); and
- Graphical representation of data.

Measures of central tendency assist the researcher to describe data for both sample and populations in a quantitative manner. The measures used in describing the central tendency of the data highlight common, middle, or average values. There are three ways in which central tendency can be described which include:

- Mean: known as the average value;
- Median: known as the mid-point or middle value; and
- Mode: known as the frequency in which the data appears.

The mean provides an overall picture of the entire set of responses or data in a single number, and is computed using the following formula:

$$\bar{X} = \frac{\sum X}{N} \tag{3.1}$$

Where,

$\bar{X}$ represents the mean of the sample

$\sum X$ represents the sum of all data points

N represents the total number of all data points

Median represents the middle of the dataset which therefore means half of the data points are on the left side of the median and the other half on the right side. According to Wagner et al., (2012) mode is the data point that occurs most often.

Measures of variability describe how the data is dispersed and is a summary statistic that represents the amount of dispersion in that dataset. The common measures used to understand the dispersion include range, variance, and standard deviation. In addition to these measures one can further assess skewness and kurtosis as descriptive statistics (Wagner et al., 2012).

Standard deviation is a measure of the dispersion of the data about the mean; the closer the data points are to the mean, the smaller the standard deviation, and the higher the standard deviation, the more dispersed the data is around the mean. The standard deviation of a sample is represented by the following equation:

$$\sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{N-1}} \tag{3.2}$$

Where,

$\bar{X}$ represents the mean of the sample

X represents each value in the sample

N represents the total number of all data points

Firstly, descriptive statistics is used in order to provide the sample with characteristics such as age, gender, race or ethnicity, nationality, province in which the respondent resides, marital status, number of dependants, income, and education level. The descriptive statistics will be used to provide insights and an overview of the current trends around financial literacy levels, willingness and attitude towards retirement planning and spending behaviours in South Africa. A similar approach was adopted by Lusardi and Michelle (2011) in which the following study expands on.

3.8.2 Factor analysis

In order to detect trends, correlations, and patterns in the data, factor analysis is a technique that identifies structures within large variable sets. Young and Pearce (2013) explain that there are two forms of factor analysis, the first of which is called confirmatory factor analysis and is utilised to test and verify ideas. Exploratory factor analysis is the second type of factor analysis, which seeks to uncover any correlations between the groups within a dataset.

Testing for correlation between two or more groups will determine whether any strong relationship between variables exist and further indicates the direction of the relationship which can be either positive or negative. The strength of the relationship is measured between -1 and +1 in which a linear correlation coefficient that is more than zero indicates a positive relationship and a coefficient less than zero indicating a negative relationship. A correlation coefficient of zero confirms that no relationship exists between the two groups and the closer to -1 or +1 the strong the relationship and how those variables move together. Therefore, the study will test causality between financial literacy and saving for retirement.

A correlation coefficient between 0 and 0.3 indicates a weak relationship whilst a coefficient between 0.7 and 1 suggest a strong relationship. The following formula will be used to determine the correlations between two groups:

$$\rho = \frac{cov(X,Y)}{\sigma x \sigma y} \tag{3.3}$$

Where,

ρ	represents the correlation coefficient
Cov(X,Y)	represents the covariance between the two variables
$\sigma x \sigma y$	represents the product of both standard deviation for the two variables

Therefore, the Pearson's correlation test will be run against financial literacy scores and an individual's rate of contribution towards retirement as well as their ability to understand if they should supplement any short falls. This will indicate whether financial literacy does cause one to prioritise and plan better for retirement.

3.8.3 Inferential statistics

The purpose of inferential statistics is to draw conclusions about a population based on the results of a sample (Wagner et al., 2012). The most common processes in inferential statistics include hypothesis testing, confidence intervals, and regression analysis. These inferential approaches can provide summary values that are comparable to descriptive statistics, such as the mean and standard deviation. The research study uses inferential statistics to examine its hypotheses. To enhance the validity of the results, two statistical tests are used to evaluate the hypotheses. These tests include the t-test for independent samples, and binomial logistic regression analysis.

3.8.3.1 Independent sample (t-test)

According to Wagner et al. (2012), the independent sample t-test is a statistical test used to compare the mean scores of a continuous variable across two unique groups. The t-test will be used to compare the mean financial literacy scores of those who are planning for retirement vs those who are not. The t-test will also be used to compare the mean of individuals who are financially literate and those who are willing to plan for retirement. The purpose of the t-test is therefore to determine whether retirement planning willingness is dependent on financial literacy.

A variety of assumptions underpin the t-test. First, it assumes the data were collected using a random sample and that the units of observation are independent. If units are independent of one another, it means that one unit of study has no influence over the other. Second, the normal distribution of the population is assumed. This assumption can be violated by samples containing more than 30 units of study without influencing the results (Pallant, 2011). Levene's test is used to examine the final assumption that the variances of the two research groups are equal. To demonstrate equal variance, Levene's test will produce a significance level greater than 0.05; hence, this assumption is true.

The following formula will be used to determine the independent t-test:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{S_1{}^2}{N_1} + \frac{S_2{}^2}{N_2}}} \tag{3.4}$$

Where,

$\bar{x}_1$ represents the mean of sample 1
$\bar{x}_2$ represents the mean of sample 2
N_1 represents the number of units in sample 1
N_2 represents the number of units in sample 2
S_1 represents the standard deviation in sample 1
S_2 represents the standard deviation in sample 2

3.8.3.2 Chi-square test

The chi-square test is utilized to determine the association between two variables. Both of these variables must be categorical. Based on a cross-tabulation table, the chi-square test compares the observed frequencies in each category with the anticipated frequencies if there were no link between the variables (Pallant, 2011). Consequently, the chi-square test determines whether a dependent and independent variable have a significant association (in this case between retirement planning willingness and financial literacy). In addition to determining the significance of a link between two variables, this test identifies the categories responsible for the observed differences (McHugh, 2013).

McHugh (2013) offers the following chi-square test assumptions. First, the information in the cells should be presented as counts or frequencies, not as percentages. Second, it is assumed that the data categories are mutually exclusive. In other words, an individual sample unit cannot fit into both groups, but only one. In addition, it is assumed that the units of study are independent of one another. Lastly, the value of each cell must be at least five, and the predicted mean cannot be less than three.

The chi-square test is represented by the following formula:

$$x_n^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)2}{E_i} \tag{3.5}$$

Where,

x^2	represents the cell chi squared value
n	represents the n degrees of freedom
o	represents the number of cases in each cell (observed cases)
E	represents the expected frequencies
$\sum$	represents the sum of chi squared values in all cells

In addition to the chi-square test, excel data analytics automatically calculates the phi coefficient, which represents the relationship's effect magnitude. The significance of the phi coefficient is contingent upon the existence of a substantial link between the variables. A phi coefficient closer to one indicates that the dependent variable has a significant effect on the independent variable.

3.8.3.3 Binomial

Using multiple linear regression, Lusardi, and Mitchell (2011), Bucher-Koenen and Lusardi (2011), and Boisclair et al. (2015) determined whether there is a correlation between the two variables. When at least two independent variables are used to identify the dependent variable, multiple linear regression is employed (Leedy & Ormrod, 2010). In this instance, the dependent variable is typically a continuous variable, which has an infinite number of possible values.

In contrast, binomial logistic regression technique is utilized in this work. This is because the dependent variable, willingness to plan for retirement, is categorical and not continuous. One either has planned for and is willing to save for retirement, or one does not. In general, logistic regression is applicable when testing correlations between a categorical result variable and categorical or continuous predictor variables (Peng, Lee, & Ingersoll, 2010).

Similar to linear regression, binomial logistic regression accounts for the fact that the dependent variable is categorical or binary rather than continuous (Tranmer & Elliot, 2008). In addition, by applying the logit transformation to the dependent variable, binomial logistics solves two difficulties that arise when linear regression is utilized. Extremes not having a linear pattern and mistakes not having a constant or normal distribution are the two issues (Peng et al., 2010).

The logit transformation is interpreted using the odds ratio (natural logarithm (ln)), which is the most crucial metric for this strategy. The odds ratio measures the relationship between two variables. It will assess the strength of the relationship between the presence of retirement planning willingness and the retirement planning willingness of individuals.

The logistic regression is represented by the below formula:

$\ln(\pi 1-\pi) = \alpha+\beta i X i+\varepsilon i$

Where,

ln = natural logarithm
π = probability of the outcome of interest
α = the Y intercept
β = regression coefficient
X = independent variable
ε = error term

The direction of the association between these two variables is shown by the regression coefficient. If is positive (i.e., greater than zero), it indicates that the greater the independent variable (X), the greater the dependent variable (Y), and vice versa if is negative. Regression analysis has both benefits and drawbacks. The primary shortcoming of this strategy is that it can only predict the relationship between two variables but cannot determine the causality between them (Leedy & Ormrod, 2010).

3.9 Time horizon

Saunders et al. (2009) suggests that time horizon indicates how long the study will be conducted, either at a specified point in time or over a period of time. The difference between the two are cross sectional and longitudinal. A cross sectional study aims to collect data at a specific point in time. Longitudinal studies suggest that the data is collected over several points in time using the same sample (Saunders et al., 2009). In the following study, the author observes the data over a specific time period (1 March 2022 – 31 March 2022) and is therefore cross sectional in nature.

3.10 Reliability

To ensure that the study obtains its desired results, one must be able to ensure the study's reliability and validity. Reliability emphasises the extent to which the data gathering methods or analysis procedures will produce trustworthy results. Easterby-Smith et al. (2008:109) highlight that reliability may be examined by answering the following questions:

1. Will the proposed methodology yield the same results if replicated?
2. Can other researchers reach similar observations?
3. How transparent is the process in making inferences from the raw data?

The study collects data from a structured questionnaire in the form of a survey, therefore it is important to ensure validity and reliability of this measurement (Tavakol & Dennick, 2011). In order to ensure reliability possible threats to the reliability of the study must be highlighted and a proposed solution offered in order to mitigate against these potential threats.

Robson (2002) explains that there are four probable threats to reliability which include 1) subject or participant error 2) subject or participant bias 3) observer error 4) observer bias. Based on the selected methodology the author has identified a potential threat for participant bias. Observer error and bias will be at a minimal level as the structured questionnaire is quantitative in nature and accurate judgements can be made through the collected data.

Participant error is the major threat as respondents may not understand a particular financial literacy question and could enter in incorrect information as a result of not understanding the question. The study has mitigated against this by ensuring a multiple-choice selection that mitigates the occurrence of typing and finger errors, the survey also double checks with the respondent to ensure that they are comfortable with their response by projecting a pop up before moving to the next question. Further to this, the author has also enabled capability to move to the previous question if the respondent is unsure of their answers.

3.11 Validity

The ability to measure what the study is intended to measure using the proposed research instrument is referred to as validity. History, testing, instrumentation, mortality, maturation, and ambiguity are all threats to the validity of research studies, according to Saunders et al. (2009:157).

The author has identified mortality as a potential threat to the study, which refers to study participants dropping out. Using a structured questionnaire to assess financial literacy levels may cause voluntary participants to actively leave the survey unanswered because they do not want to answer questions that require concentration on a continuous basis. This was addressed by the author, who reduced the amount of time required to complete the questionnaire and gave respondents the option to pause the survey and return to it later. The average time spent on the survey was confirmed to be less than ten minutes.

In terms of generalizability, the author believes that the method used to conduct the study allows for external validity, ensuring that the study can be generalised to an entire population. The sampling method improves the generalizability of the proposed study even more.

3.12 Sampling methodology

The process of selecting a portion of the population data in order to make inferences and accurately represent the population is defined as sampling. According to Wagner et al. (2012), sampling can be divided into two types: probability sampling and non-probability sampling. Within these two categories, sampling techniques can be further subdivided into different strategies based on the type of study and its intended outcome.

The author has determined that probability sampling using a simple random sample technique will be utilized to represent the total population. Saunders et al. (2009) state that probability sampling is frequently used in conjunction with survey methods because it is considered representative sampling. This strategy was chosen because the sampling frame is precise and easily available, the sample size required is substantial (143), and this method accurately represents the entire population.

As the sample parameters did not have too many exclusions, the survey was distributed across a variety of platforms, including LinkedIn and various WhatsApp groups. Anyone over the age of 18 is welcome to take part in the survey, as it allows for a broader range of responses. A total of 143 responses are chosen at random to represent the population by assigning a random model that extracted random responses.

3.12.1 Sample size

Initially, 147 people took part in the online survey. However, a few respondents were excluded from the analysis because they were either under the age of 18 or were not South African citizens. These responses, which totalled four, were removed during the data cleaning process. The survey was designed to determine age and citizenship so that these responses could be excluded from the analysis because they were not useful for the purpose and objective of the study's intended outcome.

After removing the responses that were deemed unusable, the final number of respondents used was 194, who were distributed across gender, age, race, and province. As a strategy, all respondents were chosen using simple random sampling. The sample consists of 120 (70%) Black South Africans, 14 (7%) Coloureds, 15 (8%) Indians, and 26 (15%) whites. Furthermore, all of the respondents were South African citizens.

3.13 Area of study

In order for the sample to be typical of the entire population, the study must be done in a geographical region that is representative of the total population. The author's objective in this study is to make inferences about the South African population through the use of probability sampling. In order for the sample to be representative of the population, the poll was distributed across important provinces in South Africa in order to more accurately represent South Africa.

The survey was distributed in a manner that was representative of the population because the author has a large network on LinkedIn that spans all provinces and had access to distribute the survey in the following provinces:

- Eastern Cape
- Free State
- Gauteng
- KwaZulu-Natal
- Limpopo
- Mpumalanga
- Northern Cape
- North West

The above geographical map will provide insight into the overall population of South Africa, as the areas represent both urban and rural areas.

3.14 Limitations

Numerous comparative research investigations have revealed the limitations of comparable studies, and this study is no different. The planned study uses data gathered from an online poll to draw conclusions regarding the relationship between making prudent financial decisions and retirement planning. While the suggested sampling approach is intended to be representative of the South African population, the author has identified several limitations.

The first constraint was that the structured survey had been done in English, which may have dissuaded some respondents from attempting to respond because they would not have understood all of the questions. When delivering the survey to rural provinces in particular. The only way the author has attempted to minimize this shortcoming is by suggesting that responders use Google Translate to comprehend the questions.

The second restriction of the study was that it was limited to adults aged 18 and older who were eligible for permanent work. Nonetheless, it would be intriguing to comprehend the beliefs, attitudes, and behaviours of today's young and how they relate to financial literacy and retirement planning.

3.15 Ethical considerations

Saunders et al. (2009) state that ethical considerations must be emphasized during the study design phase. This will enable the researcher to guarantee that accurate procedures are in place to mitigate the impact of any potential underlying ethical factors that could influence any of the steps, from the formulation of a research topic through the storage of data. Ethical issues aim to prevent and achieve validity, reliability, sampling, confidentiality, and voluntary participation (Adams et al., 2007).

The primary area of concern has been recognized as the need for informed permission from participants during the data gathering phase. Participants should not be coerced into taking part in a research study. This is reduced by requiring respondents to complete the survey voluntarily and anonymously. As a result, the confidentiality and voluntary participation are assured.

The second ethical aspect is the processing of the data to guarantee that there is no coercion, and that confidentiality and anonymity are preserved while delivering accurate and reflecting results. This was minimized by the fact that the proposed survey did not request any personally identifiable information, such as names and surnames, ID numbers, and residential addresses. The survey is designed to collect only the information required for the study's conclusions.

The researcher will maintain neutrality, honesty, and integrity during this investigation and will not fabricate the results. The findings will be published with as much precision as feasible. The researcher's beliefs and perspectives will have no bearing on the study's outcome.

3.16 Conclusion

In this chapter, the study's overall research design and data gathering procedure were reviewed in depth. In addition, the statistical tests to be employed for data analysis were given in depth. The study's hypothesis will be examined using three statistical tests: the chi-square test, the independent sample t-test, and the binomial logistic regression analysis. In the concluding portions, the study's ethical considerations were examined.

CHAPTER 4

Results and findings

4.1 Introduction

The overall purpose of the study is to identify the factors that influence South Africans' propensity to plan efficiently for retirement while maintaining financial literacy. Consequently, analysing the relationship between financial literacy and the propensity to make good financial decisions in relation to retirement planning.

In the previous chapter, the research methods and statistical analysis techniques employed in this study were discussed. This chapter summarizes the results of the data analyses done. Excel data analysis is used to accomplish this goal. The chapter will also analyse and evaluate the results.

First, the sample's descriptive statistics are reported. This provides the reader with the sample's demographic distributions. The study's primary objective is to determine the characteristics that influence a person's willingness to plan and prioritise retirement planning while being financially literate. In order to comprehend the underlying issues, it is necessary to comprehend the present financial literacy rates based on the survey questions. After establishing financial literacy, the study will measure retirement planning knowledge, willingness, and aptitude. Finally, spending behavioural traits are evaluated and common tendencies are extracted to provide insights into why financially knowledgeable South Africans do not prioritize retirement planning.

4.2 Descriptive statistics

The study utilises descriptive data to characterize the sample by age, gender, race or ethnicity, nationality, province of residence, marital status, number of dependents, income, and level of education. The descriptive statistics are used to provide insights and an overview of current trends in South Africa on levels of financial literacy, readiness and attitude toward retirement planning, and spending behaviours. This is elaborated upon in the subsequent sections.

4.2.1 Sample characteristics

The distribution technique resulted in 143 replies from individuals who participated in the study's survey, which had been distributed over multiple channels, including LinkedIn. Only one participant was removed from the analysis because they were under 18 years of age and unemployed. Overall, there were 77 males (54.23 %) and 65 females (65 %) in the sample size. The average age of the survey respondents ranged from 31 to 40 years old.

The sample included individuals of four races, namely Black African, White, Coloured, and Indian, who were grouped with Asians. The distribution of the sample among these races is shown in the following table.

Table 4.1: Distribution of racial or ethnic groupings

Race	**Percentage (%)**
Black African	33.1
Indian/Asian	42.25
White	17.61
Coloured	7.04
Total	**100**

Source: *Authors computation*

Table 4.1 indicates that Indian and Asian make up the majority of the sample (42.25 %), with Black African making up the second largest portion of the sample (33.1%). Coloured individuals make up 7.04% of the sample, representing the minority.

The bulk of survey respondents reside in Gauteng, as highlighted in Table 4.2 below (86.71%). As the majority of participants reside in the Gauteng province, it is possible to conclude that, despite the study's intention to represent the South African population, the study can now be restricted to representing the Gauteng province.

Table 4.2: Province of residence

Province	**Percentage (%)**
Eastern Cape	3.50
Free State	2.80
Gauteng	86.71
Kwa-Zulu-Natal	5.59
Northern Cape	0.70
North West	0.70
Total	**100**

Source: *Authors computation*

The education level of the sample is crucial since it can affect the results and their interpretation. The education level of the sample is summarized in Table 4.3. The below table demonstrates that 42.66% population holds a postgraduate degree. Therefore, the majority of the sample has a matriculation certificate, or has completed high school. Overall, 99.3 % population has completed high school, while only 0.7% have no formal education. In addition, 27.27 percent of the sample has a bachelor's degree. The sample consists of 81.12 % qualified persons, which should translate to a higher percentage of financial literacy and an appreciation for the significance of retirement planning.

Table 4.3: Educational level

Qualification	**Percentage (%)**
No schooling	0.7
Primary schooling	0.00
High School	3.5
National Certificate	5.59
Diploma	9.09
Undergraduate (e.g., BCom/BA)	27.27
Postgraduate (e.g., Honours)	42.66
Professional (e.g., Chartered Accountant)	11.19
Total	**100**

Source: *Authors Computation*

The marital status of the sample was also determined, revealing that 54.55 % lived in married households, as shown in Table 4.4. Single individuals made up 27.27 % of the sample, while those living with a partner (10.49 %) and those who were separated or divorced (7.69 %) comprised the minority.

Table 4.4: Marital status

Marital Status	Percentage (%)
Married	54.55
Single	27.27
Separated/Divorced	7.69
Living with partner	10.49
Total	**100**

Source: *Authors Computation*

In addition to marital status, the number of dependent children under the age of 18 was also questioned. The goal of these questions is to establish the typical number of dependents in the household, as an increase in dependents may cause financial strain in a single-income household or if income has not increased enough to support all dependents. Table 4.5 depicts the number of financially dependent children in a specific family and indicates that 54.55 % have at least one child.

Table 4.5: Dependant's overview

Number of dependants (18 years or less)	
None	45.45
1 Child	23.08
2 Children	22.38
3 Children or more	9.09
Total	**100**

Source: *Authors Computation*

In addition to minor dependants, households can include senior dependants who are 18 years or older and financially dependent on the household's income earners. In addition to children, Table 4.6 identifies the number of adults residing in a family. The sample reveals that 41.96 % had one or more adults over the age of 18 who are financially dependent on the household's income earners.

Table 4.6: Financially dependent elders who are 18 years or older

Number of dependants (olde than 18 years of age)	**Percentage (%)**
None	58.04
1 Elder	23.78
2 Elders	11.89
More than 2 elders	6.29
Total	**100**

Source: *Authors Computation*

Table 4.7 illustrates that 64.05 % of the sample is comprised of high-income individuals earning between R 488 701 and R 1 731 600 annually. Therefore, this indicates that these individuals are above-average income earners who should be financially prepared for retirement and have given retirement planning top priority.

Table 4.7: Yearly income

Yearly Income	**Frequency**	**Valid Percentage (%)**	**Cumulative Percentage (%)**
R1 – R226 000	12	8.39	8.39
R226 001 – R353 100	13	9.09	17.48
R353 101 – R488 700	18	12.59	30.07
R488 701– R641 400	33	23.08	53.15
R641 401 – R817 600	28	19.58	72.73
R817 601 – R1 731 600	32	22.38	95.11
R1 731 601 and above	7	4.90	100
Total	**143**	**100**	

Source: *Authors Computation*

The health status of the participants was also evaluated to establish whether there were connections between healthy individuals and retirement planning prioritisation. Table 4.8 displayed the proportion of respondents who indicated they are seen as healthy. Approximately 80.52% indicate that they are healthy (20.98 %) and moderately healthy (61.52 %). Consequently, there is no apparent trend indicating that healthy adults are better prepared for retirement.

Table 4.8: Health status of sample

Health Status	**Percentage (%)**
Healthy	20.98
Moderately healthy	61.54
No comment	10.49
Moderately unhealthy	4.90
Unhealthy	2.10
Total	**100**

Source: *Authors Computation*

According to the literature covered in Chapter 2, low levels of retirement contributions are one of the key reasons why individuals cannot retire comfortably. The survey asked respondents to confirm their current pension contribution rate. Table 4.9 indicates that a total of 53.15 % of all participants have the smallest contribution, despite the fact that 69.94 % have an annual gross income of R500,000 or more.

According to Reddy (2021), the author of the Sanlam intelligence report, suggests that South Africans should adopt a net replacement ratio of 70% when assessing their retirement needs. A Net Replacement Ratio (NRR) is the ratio of a member's predicted pension in the year following retirement to their projected pay in the year prior to retirement. For instance, if a member's yearly pension in the year following retirement is R80 000 and their pay in the year prior to retirement was R100 000, then the NRR is 80% (R80 000/R100 000).

In general, a retiree does not require the same level of income during their retirement years as an active employee, hence an NRR of 70% or above is seen adequate. This is due to the fact that there are less work-related expenses, including travel, loan repayments, and dependents. A NRR of 70% based on pensionable remuneration may not be sufficient for a pleasant retirement if the pensionable salary percentage is less than 80% of the employee's total cost to the organization. The NRR calculation does not take into account other assets or retirement savings.

Table 4.9: Pension fund contribution

Pension fund contribution percentage	**Percentage (%)**
13.50%	53.15
16.0%	29.37
18.50%	9.79
21.00%	3.50
23.50%	2.10
26.00%	0.00
27.50%	2.10
Total	**100**

Source: *Authors Computation*

4.2.2 Financial literacy

The examination of an individuals' level of financial literacy consisted of eight questions incorporating the following concepts: simple mathematics, interest rates, inflation, and risk diversification. Table 4.10 provides a summary of the questions and the proportion of respondents who provided correct and incorrect responses.

Question 1 assessed fundamental understanding of inflation and return rate. This question tests a participant's comprehension of inflation and how it can erode the value of money over time, as well as the notion of return and whether the rate of return can either increase or decrease the purchasing power of money over time.

Table 4.10: Financial literacy questions

Question	% Correct	% Incorrect
1) Imagine that you are gifted with R 1000 and that you invest the funds at a rate of return that is below inflation: In a years' time what would happen to your money?	81.51	18.49
2) Imagine that five friends are given a gift of R1 000. If the five friends have to share R1000 equally, how much would each one get?	100	0
3) You lend R50 to a friend one evening and he gives you R55 back the next day. How much interest has he paid on this loan?	98.32	1.68
4) Suppose you put R1000 into a savings account with a guaranteed annual interest rate of 5% per year. You don't make any further payments into this account, and you don't withdraw any money. Roughly how much would be in the account at the end of the first year, once the interest payment is made?	93.28	6.72
5) Which interest method would earn you a better return on your investment?	93.28	6.72
6) The higher the rate of return would indicate that the investment is riskier	93.28	6.72
7) High inflation levels indicates that the cost of living is high, and you can buy less for your money?	95.80	4.2
8) Portfolio diversification could assist you in reducing you risk and increasing your returns on your investment?	95.87	4.13
Average	**93.92**	**6.08**

Source: *Authors Computation*

Question 2 examined the basic arithmetic skills of individuals, and % of participants in the sample got this question right, this indicates that participants in the survey were comfortable with addition, subtraction, multiplication, and division.

With the exception of one participant, 98.32 % had the correct response to the third question, which evaluated a participants grasp understanding of how simple interest works. This question assesses knowledge of simple interest calculations and the amount required to repay a loan with simple interest.

Question 4 was deemed more difficult as only 93.28% of the participants got this question correct. The question assessed a candidate's comprehension of rate of return when making a basic investment with a guaranteed annual interest rate. Participants demonstrated a comprehension of simple interest. Question 5 then tested the understanding between simple and compound interest and a similar trend to question 4 was displayed however, majority understand that different between the two concepts and the positive effects of compound interest.

Question 6 tested the concept of risk and expected return, 93.28 % of the sample understood that the greater the risk, the bigger the expected return. The participants were subsequently assessed on their understanding of inflation and its direct effect on the purchasing power of money, and 95.80% of them received correct answers. The concept of portfolio diversification was then reviewed, with 95.87 % providing the correct response.

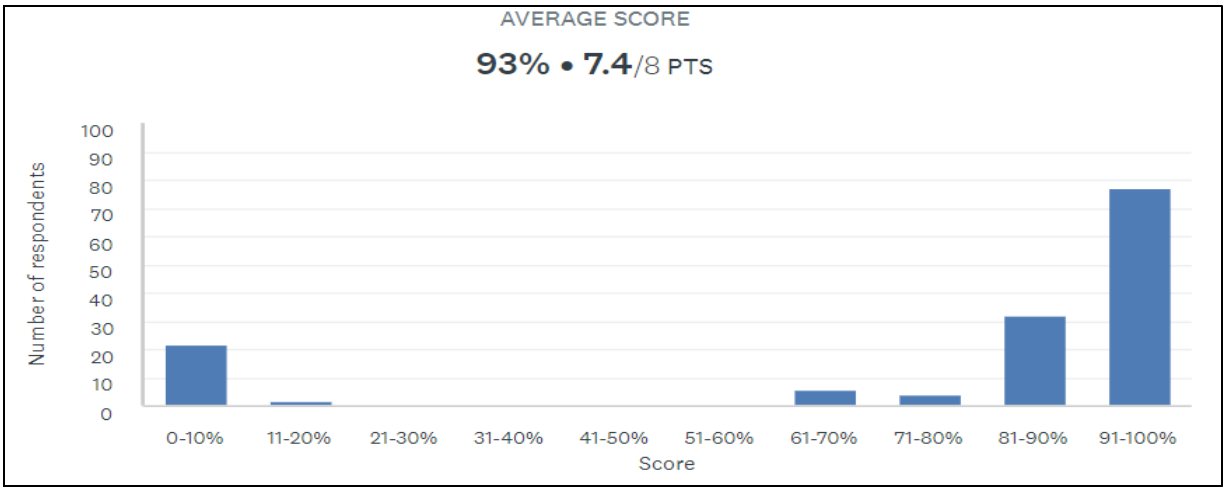

Figure 4.1: Financial literacy results

Source: *Authors Computation*

As depicted in Figure 4.1, 53.84% of participants scored between 91% and 100% on the financial literacy scale, indicating that the scores are generally high. Although the questions were simple, their primary purpose was to evaluate the participant's knowledge required to prioritise retirement planning. A considerable majority of respondents are financially literate, as 22.37 % scored between 81 and 90 percent on average, and 76.21 % scored 81% or more. The average score is 93% and only 24% of the respondents are deemed not financially illiterate.

Independently, financial literacy levels in South Africa appear to be quite high. Compared to examinations of financial literacy conducted in other countries, the results of this study reveal that South African literacy levels are, on average, greater than those in developed nations. However, it should be noted that this study was conducted with individuals who earn a living, and that the vast majority of respondents have some level of qualification or additional education. Table 4.11 lists further studies undertaken in both developed and developing nations to assess inflation, risk diversification, and compound interest-related knowledge.

It is essential to highlight that this study's questionnaire differs from those utilized in past financial literacy research. In this study's questionnaire, questions 1, 8, and 6 best depict inflation, risk diversification, and compound interest, respectively, and are most similar to questions used in generic surveys. Table 4.11 depicts these similarities for these three concepts.

Table 4.11: Financial literacy score comparison

Country	**Inflation**	**Risk Diversification**	**Compound Interest**	**Source**
South Africa	82%	96%	93%	This study (2022)
USA	64%	52%	65%	Lusardi and Mitchell (2011)
Germany	78%	62%	82%	Bucher-Koenen and Lusardi (2011)
Russia	51%	13%	36%	Klapper and Panos (2011)
Chile	18%	41%	47%	Moure (2016)
Canada	66.18%	59.35%	77.92%	Boisclair et al. (2015)

Source: *Adopted (Dhlembeu, 2018) and Author's Computation*

In comparison to South Africa and other upper-middle income countries, financial literacy levels are often greater in countries categorised as high-income. South Africa, however, has a relatively high financial literacy level, with an average of 93%, when compared to countries with an upper middle income. The respective averages for Russia and Chile are 33.3% and 35.3%, respectively. The concept of risk diversification appears to be the most difficult in the countries listed in Table 4.11.

4.2.3 Retirement planning

The examined literature indicates that retirement planning has gained traction in South Africa, but very little study has been conducted on an individual's willingness and capacity to save for retirement within a South African context. The following section examines a participant’s knowledge, willingness, and behaviour towards retirement planning.

Table 4.12 depicts the ages at which participants begin planning for retirement, the ages at which respondents believe one should begin planning, and the ages at which respondents began contributing to their retirement savings. The results suggest that 85.47% of the participants agree that one should begin thinking about retirement planning between the ages of 18 and 25. Majority of the participants agree that they had only started thinking about planning for retirement at between the ages of 26 and 30 which supports the results that majority (59.83%) of participants only started contributing towards retirement at between 26-30. Consequently, this assumption implies that retirement planning is not a priority or even considered during the early years of employment.

Table 4.12: Age assessment on retirement planning

Age	% Start planning	% Think of planning	% Contribution Age
18-25	31.90	85.47	29.06
26-30	46.55	7.69	59.83
31-35	13.79	0.85	8.55
36-40	1.72	0.85	0.85
41-45	3.45	0.00	0.85
46-50	0.86	1.71	0.85
51-59	0.86	0.00	0.00
60+	0.00	0.00	0.00
Total	**100**	**100**	**100**

Source: *Authors Computation*

There are a multitude of investment vehicles and techniques that can be utilized to achieve one's retirement objective. A pension fund contribution and supplementary retirement savings in the form of a retirement annuity or other investments to complement retirement are the most common strategies. Figure 4.2 illustrate the different types of retirement financial plans held by respondents. The majority of respondents (82.91%) rely on workplace pensions, retirement savings, and personal savings. The second-most-preferred method is having a paid-off property or building a property portfolio to continue earning rental income during retirement. Government pensions and reliance on a spouse are the least selected methods.

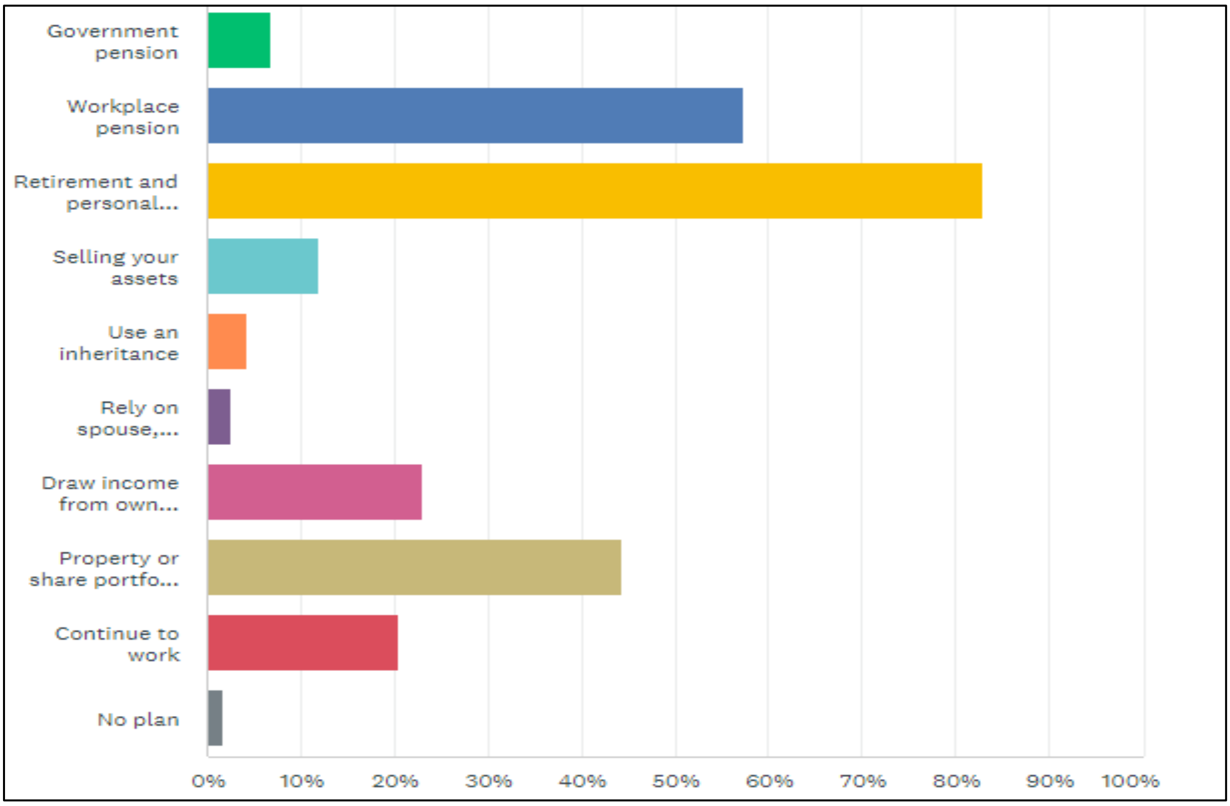

Figure 4.2: Financial plans towards retirement

Source: *Authors Computation*

Table 4.13 shows the results of the survey's examination of respondents' trust in their retirement plan. Only 11.89 % are very confident in their retirement plan's capacity to help them accomplish their retirement objectives. Nearly half of the respondents are not very confident or are not confident at all, which is concerning because it suggests that these individuals are not certain that their retirement plan would help them accomplish their retirement goals.

Table 4.13: Retirement plan confidence

Response	Percentage (%)
Very confident	11.89
Fairly confident	37.76
Not very confident	34.97
Not at all confident	14.69
Don’t know	0.00
Total	**100**

Source: *Authors Computation*

According to Gitman Joehnk and Billingsley (2010), a person should review their retirement plan at least once a year or whenever significant life events occur, such as marriage, the birth of a child, or the acquisition of an asset. Table 4.14 indicates that the majority of respondents only examine their retirement plan every two or more years, and 36.70 % only review their retirement plan every five years. This suggests that retirement planning is not a priority among this sample, as the longer it takes an individual to evaluate their financial plan, the more difficult it is to ensure that they are on course to accomplish their retirement goals.

Table 4.14: Retirement plan review

Response	Percentage (%)
Less than 1 year	12.55
2 years or more	42.20
5 years or more	36.70
Longer than 5 years	8.55
Total	**100**

Source: *Authors Computation*

One of the primary reasons why participants may have only examined their retirement plans once every two years or more may be due to the support they have received in this area. In South Africa, the majority of middle- and upper-income earners frequently consult with a financial planner or advisor (Matemane, 2018).

Table 4.15 demonstrates that around 60% of participants utilize a financial planner for retirement planning advice. Due to the participant's reliance on specialists for advice, their retirement plan may not be reviewed frequently.

Table 4.15: Retirement planning discussions

Response	**% (Percentage)**
Financial planner/advisor	59.83
Private Banker	3.42
Family or friend	5.98
Work colleagues	0.85
Own research	29.91
Total	**100**

Source: *Author Computation*

Treasury (2012) suggests that 60% of South Africans' household savings goes toward retirement. However, according to Old Mutual (2019), the percentage of personal income dedicated to savings has decreased from 21% to 16% in 2019. However, according to Old Mutual (2019), the percentage of personal income dedicated to savings has decreased from 21% to 16% in 2019.

In Table 4.16, 75.42% responded that they have additional savings and are using them for retirement planning, indicating that they have more funds to complement their retirement. This contrasts the responses in Table 4.19, in which more than half of respondents state they are unable to save enough for retirement due to various of factors.

Table 4.16: Personal savings link to retirement planning

Response	**% (Percentage)**
Yes	75.42
No	24.58
Don’t know	0.00
Total	**100**

Source: *Authors Computation*

The survey assessed participants' comprehension or knowledge of retirement planning, including where to get a pension benefit statement, whether their pension fund had a deficit or surplus, and how to supplement an inadequate retirement plan. The majority of participants did not know where to locate their pension benefit statement, did not know if they had a surplus or deficit, and did not know how to cover any deficits, as shown in Table 4.17.

In addition, the majority of respondents were unaware of the asset allocation of their pension fund, nor did they comprehend the tax consequences of retirement planning or further contributions.

Table 4.17: Knowledge on pension benefit statement

Participant Question	**% (Percentage)**	
	No	**Yes**
Does not know where to find a pension benefit statement	91.45	8.55
Does not know if their pension fund contributions are in surplus or deficit	73.73	26.27
Does not know how to fund their pension fund if a shortfall has been identified	68.64	31.36
Does not know what asset classes their pension fund is invested in	67.80	32.2
Does not know the tax implications on their pension fund	72.88	27.12

Source: *Author Computation*

Lack of understanding of retirement planning concepts may be a significant factor in South Africans' inability to effectively save for and prioritise retirement. Due to the compounding effect, the majority of respondents feel that planning and saving for retirement should begin sooner rather than later, and all survey participants agree that retirement planning is essential, as shown in Table 4.18.

Table 4.18: Retirement planning insights

Content	**Percentage**	
	No	**Yes**
Starting to plan and contribute towards retirement sooner rather than later will assist you in achieving your retirement goals due to the compound effect	2.54	97.46
Do you feel than retirement planning is important	0.00	100

Source: *Authors Computation*

Figure 4.3 illustrates the reasons why participants are unable to save enough for retirement. Less than half of the respondents believe they can save enough for retirement and have no mitigating circumstances. However, the majority of participants note that living expenses (47.01%), debt servicing (20.51%), and money moving into other areas besides living expenses (16.24%).

Daniel (2022) suggests that South Africans are becoming poorer as their reliance on debt to survive each month increases. A number of issues, including the price of fuel, food, and energy, are contributing to high living expenses. According to Daniel (2022), inflation continues to rise while South Africans' take-home pay stagnates, causing them to incur additional unsecured debt to get through the month. This perspective is illustrated in Figure 4.3, where participants indicate that living expenses prevent them from giving retirement planning or increased contributions priority.

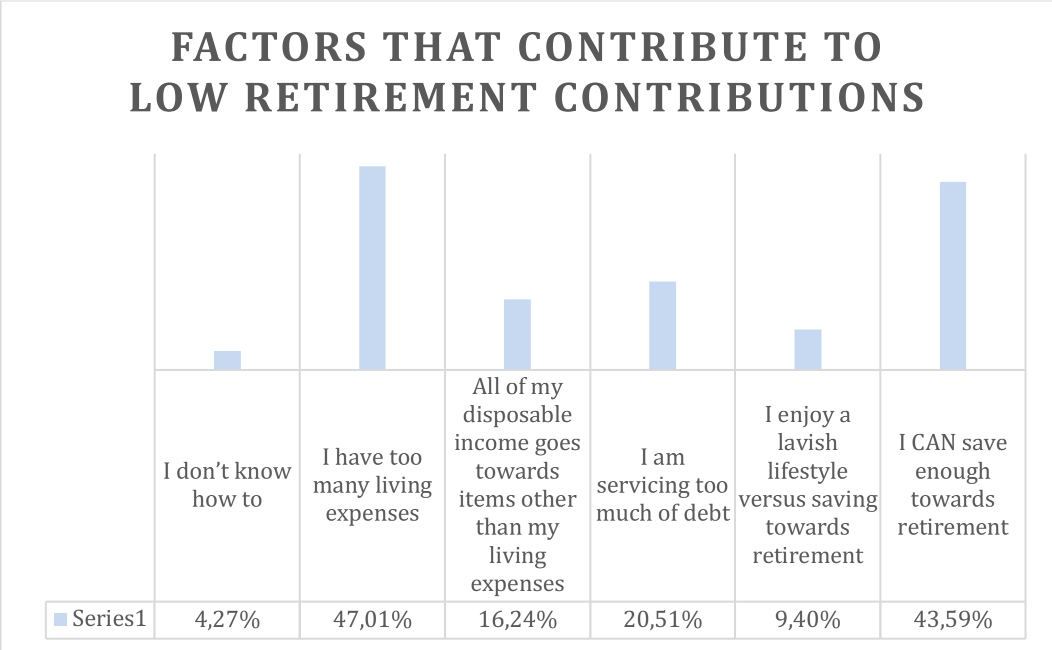

Figure 4.3: Factors that contribute towards low retirement contributions

Source: *Authors Computation*

Table 4.19 summarises the participants' thoughts and perspectives towards retirement planning. The questions tested participants' perceptions and comprehension of retirement planning, including their prioritisation, attitudes, beliefs, thoughts, and expectations.

Approximately 62.63% feel that their current financial status places them in a position where retirement planning is not a primary concern. This is consistent with the findings presented in Figure 4.3, as the majority of respondents believe they have too many living expenditures. In addition, half of the respondents indicate that they do not live for the moment, hence it is suggested that lifestyle is not the key consideration while planning for retirement. Furthermore, majority of the respondents indicate that not reaching retirement age is not one of the reasons they do not prioritize retirement.

Despite the compounding effect of interest and saving early for retirement, 35.04% believe they may defer prioritising retirement and catch up later. The same individuals also answered correctly the questions about compound interest pertaining to financial literacy.

The vast majority of respondents also affirm that they have actively considered retirement and how they would like to retire, as well as their retirement expectations regarding maintaining the same standard of life (Table 4.19).

Table 4.19: Retirement planning perspectives

Question	Strongly agree	Agree	No comment	Disagree	Strongly disagree
Do you think that because your current financial situation you are not able to prioritise retirement the way you should be?	22.88	39.83	20.34	10.17	6.78
Do you live for the here and now?	3.39	17.80	27.12	38.14	13.56
Do you think that you will not make it to retirement age for some reason and that is why retirement planning is not prioritised?	0.85	7.63	21.19	47.46	22.88
Do you believe that you can save for retirement at a later date when your income increases versus now?	7.69	27.35	11.11	39.32	14.53
Have you actively thought about retirement and how you want to retire? (E.g., House on the beach and a little coffee shop)	24.58	46.61	13.56	13.56	1.69
When I retire, I expect the same standard of living I enjoyed before retiring?	33.05	49.15	7.63	10.17	0.00

Source: *Authors Computation*

The following section evaluated descriptive statistics regarding retirement planning knowledge, attitude, beliefs, and behaviour. Many of the discussed concepts contradict the section on financial literacy, which may indicate that financial literacy does not necessarily equate to making sound financial decisions and giving retirement planning priority.

4.2.4 Spending behaviour

The section that follows evaluates descriptive statistics regarding sentiments and attitudes toward an individual's spending habits. The purpose of the questions was to compare the actual spending behaviour to the perception of what appropriate spending behaviour should be. The respondents were asked questions that prompted them to consider their budgets, adherence to a strategy for money management, credit utilisation, and lifestyle spending habits.

Table 4.20: Spending behaviour

Questions	% (Percentage)	
	Yes	No
Do you have a monthly budget in place to cater for your monthly expenses?	14.91	85.09
If you have a budget in place, do you actively track and stick to the plan?	35.09	64.91
Do you feel that the current social culture created by social media impacts the way in which you spend?	52.63	42.98
Often people find that their income does not quite cover their living expenses. In the last 12 months, has this happened to you?	69.93	30.07

Source: *Authors Computation*

Table 4.20 indicates the spending patterns and views of respondents. According to survey results 85.09% do not have a monthly budget or are not tracking their monthly budget. Only 35.09% of responders who have an active budget actively track their progress and adhere to their plan. Matemane (2018) shows that a lack of financial literacy is linked to poor spending patterns, such as individuals not creating and sticking to budgets. However, the results of this study indicate that despite a high percentage of financial literacy, respondents lack basic money management skills.

More than half of the respondents (53.63 %) indicate that social media influences their purchasing behaviour, prompting them to spend on products that are not in their budget, thus affecting their disposable income and retirement planning. In addition, nearly 70% of respondents acknowledge that their income has not been sufficient to cover their living expenses over the past year. Due to the impact of social media, it is possible that respondents are not adequately budgeting for their spending. This could be a result of lifestyle spending, as social media promotes expensive brand names and a certain status, or the household may have additional expenses, as 41.96% of respondents are caring for financial dependents over the age of 18, excluding their own children.

The results of a survey regarding the use of secured and unsecured credit lines are presented in Table 4.21. The fact that the majority of participants get credit on a monthly basis demonstrates poor spending habits, as credit should not be required to supplement monthly living needs. In addition, 42.48 % of respondents report using credit occasionally to cover lifestyle expenses. Furthermore, 32.46% of respondents answered that they would immediately use credit for a significant purchase instead of saving up for it and paying cash.

Approximately 70% of respondents either don't have surplus funds or seldomly have surplus funds at the end of the month. Therefore, one can deduce based on the above analysis that spending behaviour has a direct impact on respondents' overall affordability which will negatively impact the ability to plan and prioritise retirement.

Table 4.21: Credit utilisation

How often do you take out credit	**Responses**
Weekly	0.88
Monthly	61.40
Bi-Annually	7.89
Yearly	9.65
I hardly take out credit	20.18
Total	**100**

Source: *Authors Computation*

Despite the fact that 61.40% of respondents indicated that they would like to save for retirement now and spend on lifestyle later, responses regarding spending behaviour reflect a different picture, with spending taking precedence over retirement planning.

In summary the following section assessed participants spending behaviour and prioritisation of retirement, descriptive statistics suggest that the manner in which one spends is not being budgeted or tracked for and therefore results in respondents taking up additional credit to fund living expenses or lifestyle. This takes away from overall affordability and results in reduced prioritisation of retirement planning.

4.3 Factor analysis

The next section examines the correlation between financial literacy and retirement savings. Several studies imply that the more financially educated a person is, the more they are able to plan and prepare for retirement. Therefore, the purpose of this test is to determine if financial literacy influences an individual's ability to prioritize and save for retirement.

Table 4.22 indicates the results from a Pearson correlation analysis run on three variables which include financial literacy score, retirement planning contribution and whether an individual knows how to supplement a shortfall. The reason why these variables are selected is due to the notion that if one is financially literate, they would contribute higher towards retirement in line with a 70% net replacement ratio and these individuals would also understand the basics on how to supplement retirement shortfalls.

Earlier results indicated that majority of the participants display strong financial literacy scores however, based on observations a large number of participants were either contributing the minimum towards retirement and did not know how to supplement a retirement shortfall. Table 4.22 confirms the notion that there is a weak correlation between financial literacy and retirement planning understanding.

Financial literacy scores show a weak positive correlation coefficient of 0.065 when run against retirement planning contribution rates and has a weak negative correlation when run against supplementing retirement shortfall. Therefore, one can deduce that financial literacy would not necessarily cause one to understand and prioritised retirement planning.

Table 4.22: Pearson correlation analysis

	Financial Literacy Score	Retirement Planning Contribution	Supplement Retirement Shortfall
Financial Literacy Score	1	0.065	-0.024
Retirement Planning Contribution	0.065	1	0.078
Supplement Retirement Shortfall	-0.024	0.078	1

Source: *Authors Computation*

4.4 Inferential statistics

The study uses inferential statistics to test its hypotheses on whether financial literacy does assist individuals in making sound financial decisions around retirement planning. In order to strengthen the validity of the results, three statistical tests are applied to assess the hypotheses. These tests include the chi-squared test, t-test for independent samples, and binomial logistic regression analysis.

In order to test if financial literacy has a direct relationship with retirement planning willingness of individuals, the data was coded in which is displayed in Appendix B. The code “1” was used to indicate factors that suggest willingness towards retirement planning, which included a pension fund contribution rate of more than 16%, respondents reviewing their retirement plan in two years or less and if the respondent has multiple savings streams in order to supplement retirement. Code “2” indicated that the respondents had no willingness towards retirement planning.

Financial literacy had also been coded with the code “1” indicating that the respondent is financially literate by scoring more than 70% in the survey and coded “2” if the respondent obtained less than 70% in the survey.

4.4.1 Chi-square test

First, the chi-square test of independence was performed to evaluate whether the willingness to plan for retirement depends on financial literacy. None of the cells had an expected count of fewer than five, hence the chi-square test's primary assumption was not broken. There is a difference in frequency between respondents who are financially literate and those who are willing to actively plan and prioritise for retirement.

The cross-tabulation of retirement planning willingness and financial literacy is shown in table 4.23, only 8.6% are financially literate and have a willingness to prioritise retirement planning, whereas 91.4% of respondents who are financially literate do not exhibit any willingness to plan for retirement.

Table 4.23: Chi-Square cross tabulation

financial_literate * retirement_willingness Crosstabulation

			retirement_willingness		
			yes	no	Total
financial_literate	literate	Count	10	106	116
		Expected Count	9.7	106.3	116.0
		% within financial_literate	8.6%	91.4%	100.0%
	illiterate	Count	2	25	27
		Expected Count	2.3	24.7	27.0
		% within financial_literate	7.4%	92.6%	100.0%
Total		Count	12	131	143
		Expected Count	12.0	131.0	143.0
		% within financial_literate	8.4%	91.6%	100.0%

Source: *SPSS Computation*

The Chi-square test with an alpha of 0.05 is employed as the criteria for decision making. The findings of the Chi-square test are summarised in Table 4.24. The results suggest that the Pearson Chi-Square statistic has a two-tailed probability of 0.8383, indicating that the test is not statistically significant and that there is no meaningful association between financial literacy and retirement planning willingness.

Therefore, the null hypothesis (there is no significant relationship between financial literacy and retirement planning willingness) is accepted and the alternative hypothesis (there is a significant relationship between financial literacy and retirement planning willingness) is rejected.

Table 4.24: Chi-Square test

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.042[a]	1	.838		
Continuity Correction[b]	.000	1	1.000		
Likelihood Ratio	.043	1	.835		
Fisher's Exact Test				1.000	.597
Linear-by-Linear Association	.042	1	.838		
N of Valid Cases	143				

Source: *SPSS Computation*

The independent sample t-test is then employed to determine if there is a significant difference in the mean financial literacy scores between individuals who are willing to plan for retirement and those who are not. Based on the results of the Chi-square test, it is anticipated that there is no significant association between financial literacy and retirement planning willingness.

4.4.2 Independent sample (t-test)

The independent sample t-test was conducted to see whether there is a difference in the mean financial literacy score between those who were willing to plan for retirement and those who were hesitant to plan for retirement. The scores on the financial literacy test served as the continuous variable. Retirement planning willingness was measured using the coded values for “1” and “2” as discussed in the beginning of the chapter.

Table 4.25 illustrates the difference in means between the financial literacy scores of those who show retirement willingness and those that do not show retirement willingness. Respondents who are financially literate and show retirement planning willingness have a mean of 1.1667, compared respondents who do not show retirement planning willingness which have a mean of 1.1908.

Table 4.25: Independent sample (t-test) group statistics

Group Statistics					
	retirement_willingness	N	Mean	Std. Deviation	Std. Error Mean
financial_literate	yes	12	1.1667	.38925	.11237
	no	131	1.1908	.39447	.03447

Source: *SPSS Computation*

The Levene’s test is then used to determine the equality of variances which is illustrated in Table 4.26 and indicate a significance level of 0.675 which is above 0.05. The table below shows that there is no significant difference between the mean financial literacy scores of those who show retirement planning willingness ($\bar{x} = 1.1667, \sigma = 0.38925$) and those who do not show retirement planning willingness ($\bar{x} = 1.1908, \sigma = 0.39447$); *t* (-0.206), *p* = 0.675). Therefore, the null hypothesis is not rejected and confirms that those who are financially literate do not display retirement planning willingness.

Table 4.26: Independent sample (t-test) of financial literacy and retirement planning willingness

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
financial_literate	Equal variances assumed	.176	.675	-.203	141	.420	.839	-.02417	.11885	-.25914	.21079
	Equal variances not assumed			-.206	13.157	.420	.840	-.02417	.11753	-.27778	.22943

Source: *SPSS Computation*

The next section discusses the binomial logistic regression analysis which will determine the impact of financial literacy on retirement planning willingness of individuals.

4.4.3 Binomial logistic regression analysis

The binomial logistic regression analysis was then conducted to examine the influence of financial literacy on the willingness to plan for retirement. The two categorical variables that were used in the model: retirement planning willingness (determined by a pension fund contribution rate of more than 16%, respondents reviewing their retirement plan in two years or less and if the respondent has multiple savings streams in order to supplement retirement) and financial literacy (determined by scoring more than 70% in the survey).

The model run was statistically insignificant, X^2 (1, N=143) = 82.434, p > 0.05, showing that the model is not able to differentiate between retirement planning willingness and financial literacy. This is demonstrated in Table 4.27 below.

Table 4.27: Omnibus tests of model coefficients

		Chi-Square	df	Sig
Step 1	Step	82.434	1	0.068
	Block	82.434	1	0.068
	Model	82.434	1	0.068

Source: *SPSS Computation*

Table 4.28 below indicates that financial literacy is not a statistically significant predictor of retirement planning willingness. This is due to the fact that the significant value (sig) is greater than 0.05, suggesting a relatively low level of significance.

Table 4.28: Predicting probability for retirement planning willingness

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B) Lower	Upper
Step 1[a]	financial_literate	127.785	21672.616	.000	1	.995	3.135E+55	.000	.
	frequency	1.602	234.103	.000	1	.995	4.962	.000	9.210E+199
	Constant	-276.153	46776.441	.000	1	.995	.000		

a. Variable(s) entered on step 1: financial_literate, frequency.

Source: *SPSS Computation*

Therefore, in summary the binomial logistic regression analysis indicates that the relationship between the two variables are insignificant and that financial literacy does not influence retirement planning willingness as confirmed in the previous tests.

4.5 Summary

The following chapter summarized and analysed the statistical analysis's findings. A detailed discussion was held regarding the descriptive statistics obtained from the survey, and a number of points were evident, such as the fact that respondents did not contribute and placed retirement planning as a main priority. To strengthen the validity of the data, three statistical tests were conducted: the chi-square test, the independent sample t-test, and the binomial logistic regression analysis. The chi-square test revealed a statistically insignificant link between financial literacy and retirement planning willingness. The t-test indicated that those who are financially literate do not display retirement planning willingness. As indicated by the previous tests, the binomial logistic regression analysis reveals that the link between the two variables is insignificant and that financial literacy does not influence retirement planning willingness.

All three tests are in agreement that financial literacy does not have an impact on retirement planning willingness. The null hypothesis of the study was accepted. There is a negative insignificant relationship between retirement planning willingness and financial literacy.

This study's findings and recommendations for future research will be presented in the following chapter.

CHAPTER 5

Summary, conclusions, and recommendations

5.1 Introduction

The primary objective of the study was to examine whether there is an association between financial literacy and an individual’s willingness to plan and save for retirement. The reviewed literature indicates that the favourable relationship between financial literacy and retirement planning has been extensively studied however, there is limited studies on a financially literate individual who does not prioritise retirement. The outcome of the study will assist both government and South African citizens into insights around retirement planning and why South Africans who are financially literate and possess the means to contribute towards retirement are not currently doing so.

The following chapter describes: The objective of the research study is discussed in Section 5.2. Section 5.3 provides a summary of the study's findings. In section 5.4, the study's contribution is discussed. Sections 5.5, suggestions for future research are explored. Section 5.6 provides concluding remarks for the study.

5.2 Reason for undertaking the research

In Chapter 1, the study's background and the research problem were discussed. It was estimated that only 6% of the South African population can retire comfortably, whilst more than 32% are financially literate. Recent research indicates that retirement planning and savings in South Africa are not a priority, despite the fact that a greater financial literacy rate is associated with a South African's ability to make better financial decisions (Dhlembeu, 2018). Therefore, it is essential to investigate and understand why financially knowledgeable South Africans do not prioritise retirement.

The study adds to the lack of literature on the subject of financial literacy and retirement planning willingness as well as to identify what are the current gaps that exist that prevent financially literate individuals from saving adequately for retirement.

The main objectives of the study were to 1) determine whether financial literacy enables South Africans to make informed financial decisions around retirement planning; 2) determine what factors influences South Africans to not prioritise retirement planning despite being financial literate; and 3) determine areas of development that South African citizens need to consider when prioritising retirement planning.

In order to achieve the stated objectives, it was determined that the study would employ a quantitative methodology involving a survey. In addition to descriptive statistics, the chi-square test, independent sample t-test, and binomial logistic regression analysis were applied to achieve the specified objectives. The following section will discuss the summary of results and findings that were concluded in Chapter 4.

5.3 Discussion on findings

The research question posed was answered using the methodology outlined in Chapter 3. The study followed a survey methodology to determine whether South African citizens who are financially literate show willingness to plan towards retirement. Firstly, descriptive statistics are performed on the demographics of the sample. Then factor analysis completed through the use of the Pearson's correlation test. Inferential statistics were then performed using the chi-test, t-test, and binomial regression in order to understand the relationship between financial literacy and retirement planning willingness.

5.2.1 Descriptive statistics

Descriptive statistics were performed on the survey on four main areas which include, sample demographics, financial literacy levels, retirement planning notions and spending behaviour.

Key findings indicate that the majority of participants are middle- to upper-income earners with a bachelor's degree or higher. In total, 76% of respondents scored 70% or higher on the financial literacy questions, which indicates that the majority of respondents are financially literate. Despite being financially literate, earning a middle- to upper-middle class income, and possessing a bachelor's degree or more, 83% of participants are contributing less than the recommended net replacement ratio of 70%. Therefore, despite knowing and understanding the importance of retirement planning and investment principles, retirement is not being prioritised.

The descriptive research also revealed that 87% of participants only assess their retirement plan every three years, despite only 11% of respondents expressing high confidence in their plan. Furthermore, majority of respondents rely on one investment vehicle in order to plan for retirement This gives additional evidence that respondents do not prioritise retirement planning and highlights unwillingness.

Spending behaviour of the participants were further assessed, and results indicate that majority of the participants do not have a monthly budget in place which can be tracked to ensure that monthly expenses are catered for and retirement planning prioritised. In addition, credit utilisation appears to be the preferred methodology by 61.40% of respondents in order to supplement income and make it through the month. Lastly, more than half of the respondents feel that social media has a negative influence on their spending causing them to purchase items that are not part of a planned expense.

5.2.2 Factor analysis

A Peasons correlation test was performed on three variables which include financial literacy score, retirement planning contribution and whether an individual knows how to supplement a shortfall. Results suggest that financial literacy scores show a weak positive correlation coefficient of 0.065 when run against retirement planning contribution rates and has a weak negative correlation when run against supplementing retirement shortfall. Therefore, one can deduce that financial literacy would not necessarily cause one to understand and prioritise retirement planning.

5.2.3 Inferential statistics

First, the chi-square test of independence was performed to evaluate whether the willingness to plan for retirement depends on financial literacy. None of the cells had an expected count of fewer than five, hence the chi-square test's primary assumption was not broken. There is a difference in frequency between respondents who are financially literate and those who are willing to actively plan and prioritise for retirement. Therefore, the null hypothesis (there is no significant relationship between financial literacy and retirement planning willingness) is accepted and the alternative hypothesis (there is a significant relationship between financial literacy and retirement planning willingness) is rejected.

The independent sample t-test was conducted to see whether there is a difference in the mean financial literacy score between those who were willing to plan for retirement and those who were hesitant to plan for retirement. The scores on the financial literacy test served as the continuous variable. Retirement planning willingness was measured using the coded values for “1” and “2” as discussed in the beginning of the chapter. Therefore, the null hypothesis is not rejected and confirms that those who are financially literate do not display retirement planning willingness

Finally, a binomial logistic regression analysis was used to evaluate the relationship between financial literacy and retirement planning propensity. According to the analysis, the association between the two variables is minor, and financial literacy does not influence retirement planning propensity, as confirmed by earlier tests.

5.4 Contribution of the study

Based on the reviewed literature and research of a similar nature, the majority of studies examine the impact of financial literacy on retirement planning. These studies demonstrate that there is a strong correlation between financial literacy and retirement planning in South Africa (Dhlembeu, 2018; Matemane, 2018; Nanziri & Leibbrant, 2018). Lower levels of financial literacy, according to reviewed research, translate into retirement planning inexperience or lack of preparation. However, there is no research on why financially savvy individuals in the medium and upper income brackets are yet unable to retire in comfortably.

This study aids South African citizens, policy makers, the government, and organisations in determining where to place overall emphasis on retirement planning. This includes ensuring that individuals adopt money management principles such as creating and tracking a budget and ensuring that the essentials are covered as part of the budget, such as saving for emergencies so that credit managed, contributing enough to retirement, having a tax-free retirement savings account in place, and sticking to the budget.

5.5 Recommendations for future study

For future research, one would recommend assessing the actual factors that contribute towards having a low willingness towards retirement in the low-income segment of the market and how government can assist low-income earners in contributing positively towards retirement. Retirement planning is a huge concern in South Africa as only 6% of the population can retire comfortably, there more research is required in this field.

5.6 Final remarks

South Africa is an economically valuable nation in Africa and the world. The nation's low retirement planning rates have severe consequences for the economy. The findings of this study indicate that a high level of financial knowledge is not necessarily correlated with a propensity to plan for retirement. Policies and programs that strive to boost the willingness of South Africans to save for retirement are encouraged since they are expected to increase retirement planning in the country and further strengthen South Africa's economic position.

References

Adams, J., Khan, T.A., Raeside, R., & White, D. (2007). *Research Methods for Graduate Business and Social Science Students*. London: Sage.

Agnew, J.R., Bateman, H., & Thorp, S. (2012). Financial Literacy and Retirement Planning in Australia. *Numeracy*, *6*(2), 1-25.

Arnold, A. (2018, December 27). *Here's How Social Media Is Affecting Your Savings Goals*. Forbes. https://www.forbes.com/sites/andrewarnold/2018/12/27/heres-how-social-media-is-affecting-your-savings-goals/?sh=2cbd747f6436

Ando, A., & Modigliani, F. (1963). The "life cycle" hypothesis of saving: Aggregate implications and tests. *American Economic Review*, *53*(1), 55-84.

Apouey, B. (2020). *Conditions of Existence and Subjective Perceptions of Retirement: Quantitative Evidence from France*. Paris School of Economics Working Paper No. 2020-47.

Alavinia, S. M., & Burdorf, A. (2008). Unemployment and retirement and ill-health: A cross-sectional analysis across European countries. *International Archives of Occupational and Environmental Health*, *82*(1), 39-45.

Ali, M.S., & Jalal, H. (2018). Higher Education as a Predictor of Employment: The World of Work Perspective. *Bulletin of Education and Research*, *40*(2), 79-90.

Antoni, X.L., Saayman, M., & Vosloo, N. (2020). The Relationship Between Financial Literacy and Retirement Planning, Nelson Mandela Bay. *International Journal of Business and Management Studies*, *12*(2), 1309-8047.

Bacher, A. (2020, September 3). *How has Covid-19 affected your retirement plans?*. Moneyweb. https://www.moneyweb.co.za/financial-advisor-views/how-has-covid-19-affected-your-retirement-plans2/

Beckmann, E. (2013). *Financial literacy and household savings in Romania. Numeracy*, *6*(2), 1-9.

Beverly, S.G., & Sherraden, M. (1999). Institutional determinants of saving: Implications for low-income households and public policy. *Journal of Socio Economics*, *28*(4), 457-473.

Birdsall, N., Pinckney, T. C., & Sabot, R. H. (1996, May). *Why low inequality spurs growth: Savings and investment by the poor*. Unpublished manuscript.

Bos, W., & Tarnai, C. (1999). Content analysis in empirical social research. *International Journal of Education*, *31*(8), 659-671.

Boisclair, D., Lusardi, A., & Michaud, P. (2015). Financial literacy and retirement planning in Canada. *Journal of Pension Economics & Finance*, *16*(3), 277-296.

Brett, D. (2020, November 25). *Savings shortfall: 41% worry they won't have enough to retire*. Schroders. https://www.schroders.com/en/insights/global-investor-study/savings-shortfall-41-worry-they-wont-have-enough-to-retire/

Bunting, David. (1997, July). *Distribution and the iron law of consumption*. Paper presented at the Society for the Advancement of Socio-Economics 9th International Conference on Socio Economics, Montreal, Canada.

Burnett, J., Davis, K.T., Murawski, C., Wilkins, R., & Wilkinson, N. (2018). Measuring the Adequacy of Retirement Savings. *Review of Income and Wealth*, *64*(4), 900-927.

Butler, M., & Van Zyl, C. (2012). Consumption changes on retirement for South African households. *South African Actuarial Journal*, *12*(1), 1-29.

Curran, J., & Blackburn, R.A. (2001). *Researching the Small Enterprise*. London: Sage.

Creswell, J.W. (2012). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. California: SAGE Publications Inc.

Crossan, D., Feslier, D., and Hurnard, R. (2011). Financial literacy and retirement planning in New Zealand. *Journal of Pension Economics & Finance*, *10*(4), 619-635.

Daniel, L. (2022, May 11). *South Africans are getting poorer – and falling deeper into debt to get through the month.* Business Insider. Retrieved from https://www.businessinsider.co.za/south-africa-poorer-and-deeper-in-debt-2022-5

Deaton, A. (2005). Franco Modigliani and the life-cycle theory of consumption. *BNL Quarterly Review*, *58*(13),91-107.

Dhlembeu, N.T. (2018). *The Relationship Between Retirement Planning and Financial Literacy in South Africa* [Unpublished master's dissertation]. University of Pretoria.

Easterby-Smith, M., Thorpe, R., & Jackson, P.R. (2008). *Management Research* (3rd ed.). London: Sage.

Elo, S., Kaarianinen, M., Kanste. O., Polkki, R., Utriainen, K., & Kyngas, H. (2014). Qualitative Content Analysis: A focus on trustworthiness. *Sage Open*, *4*(1), 1-10.

Fatoki, O. (2014). The Financial Literacy of non-business university students in South Africa. *International Journal of Education and Science*, *7*(2), 261-267.

Fisher, G.G, Chaffee, D.S., Sonnega, A. (2016). Retirement Timing: A Review and Recommendations for Future Research. *Work, Aging and Retirement*, *2*(2), 230–26.

Foster, L. (2017). Young People and Attitudes towards Pension Planning. *Social Policy & Society*, *16*(1), 65-80.

Friedman, M. (1957). A theory of the consumption function. *National Bureau of*

Economic Research General Series 63. New Jersey: Princeton University Press.

Ghilarducci, T.J., Saad-Lessler, J., & Bahn. K. (2015). Are US Workers Ready for Retirement? Trends in Plan Sponsorship, Participation, and Preparedness. *Journal of Pension Benefits*, *2*(1), 25–39.

Gill, J. & Johnson, P. (2010). *Research Methods for Managers (4th ed.)*. London: Sage.

Gitman, L.J, Joehnk, M.D, & Billingsley. (2010). *Personal Financial Planning* (13*th* ed.). South-Western: Cengage Learning.

Hastings, J.S., Madrian, B.C., & Skimmyhorn, W.L. (2013). Financial Literacy, Financial Education, and Economic Outcomes. *Annual Review of Economics*, *5*(1), 347-373.

Hussain, I., & Sajjad, S. (2016). Significance of financial literacy and its implications: A discussion. *Journal of Business Strategies*, *10*(2), 141.

Hughes, P. (2010). *Paradigms, methods, and knowledge: Doing early childhood research: international perspectives on theory & practice* (2nd ed.). McGraw-Hill: United Kingdom.

Holsti, O.R. (1969). *Content Analysis for the Social Sciences and Humanities* (1st ed.). Reading: Addison-Wesley.

Hsieh, H.F., & Shannon, S.E. (2005). Three Approaches to Qualitative Content Analysis. *Qualitative Health Research*.*15*(9),1277-1288.

Khuluvhe, M., & Neogogogo, V. (2021). *The Highest Level of Education Attainment in South Africa*. Department of Higher Education and Training: Republic of South Africa.

Kunene, N., Makuwerere, P., & Anthony, C. (2017). *A study of tax-free savings account take-up in South Africa*. Retrieved from http://www.intellidex.co.za/uploads/2017/07.

Le Roux, R. (2010, July 15). *The role of savings in the economy*. Old Mutual Savings Monitor. Retrieved from https://www.oldmutual.co.za/docs/default-source/personal-solutions/financial-planning/savings-and-monitor/economicpresentnotes.pdf?sfvrsn=2

Leedy, P. D., & Ormrod, J. (2010). *Practical Research: Planning and Design* (11th ed.). New Jersey: Pearson.

Louw, J., Fouché, J., & Oberholzer, M. (2013). Financial literacy needs of South African third-year university students. *The International Business & Economics Research Journal*, *12*(4), 439.

Lusardi, A. (2003). *Planning and saving for retirement*. Working paper. Dartmouth College.

Lusardi, A., & Mitchell, O.S. (2011). *Financial Literacy and Retirement Planning in the*

United States. NBER Working Paper Series No: 17108.

Louw, J., Fouché, J., & Oberholzer, M. (2013). Financial literacy needs of South African third-year university students. *The International Business & Economics Research Journal*, *12*(4), 439-442.

Mabugu, R., & Chitiga-Mabugu, M. (2013). *Are social grants a threat to fiscal sustainability*?. Human Sciences Research Council. Retrieved from: http://www.hsrc.ac.za/en/review/hsrc-review-november-2013/social-grants-fiscas

Magubane, N.N. (2017*). Black tax: the emerging middle-class reality*. Unpublished master's dissertation]. University of Pretoria.

Makhetha, T. (2021). *Employees retirement age: What the Labour law says*. CHRO South Africa. https://chro.co.za/articles/employees-retirement-age-what-the-labour-law-says/

Mathe, T. (2020, November 1). *SA has a retirement savings crisis*. Mail & Guardian. https://mg.co.za/business/2020-11-01-sa-has-a-retirement-savings-crisis/

Matemane, M.R. (2018). *Saving for Tomorrow: Does the Level of Financial Literacy in the South African Working Class Matter?* [Unpublished master's dissertation]. University of Pretoria.

Mitchell, O.S., & Utkus, S.P. (2003). *Lessons from behavioural finance for retirement plan design*. Philadelphia: Pension Research Council.

Modigliani, F., & Brumberg, R.H. (1954). *Utility analysis and the consumption function: An interpretation of cross-section data*. Rutgers University Press: New Brunswick.

Modigliani, F., & Ando, A. K. (1957). Tests of the life cycle hypothesis of savings. *Bulletin of the Oxford Institute of Statistics*, *19*(1), 99-124.

Moffatti, S., & Heaven, B. (2017). Planning for uncertainty: narratives on retirement transition experiences. *Ageing & Society*, *37*(1), 879-898.

Moorthy, M.K., Chelliah, T.D., Sien, C.S., Leong, L.C., Kai, N.Z., Rhu, W.C., & Teng, W.Y. (2012*). International Journal of Academic Research in Economics and Management Sciences*, *1*(2), 54-72.

Moure, N. G. (2016). Financial literacy and retirement planning in Chile. *Journal of Pension Economics and Finance*, *15*(02), 203-223.

Murendo, C., & Mutsonziwa, K. (2017). Financial literacy and savings decisions by adult financial consumers in Zimbabwe. *International Journal of Consumer Studies*, *41*(1), 95-103.

Nansubuga, F. (2018). The Role of Self-Efficacy in Explaining Psychological and Financial Preparation for Retirement: A Behavioural Study of Retirement Transitioning in Uganda. *Journal of Adult Development*, *25*(1), 297-308.

Nanziri, E.L., & Leibbrandt, M. (2018). Measuring and profiling financial literacy in South Africa. *South African Journal of Economic and Management Sciences*, *21*(1), 2-17.

National Treasury South Africa. (2012). *Strengthening retirement savings*. Retrieved from http://www.treasury.gov.za/publications/RetirementReform/20120314%20-%20Strengthening%20retirement%20savings.pdf

National Treasury South Africa. (2015). *Advantages of the tax and retirement reforms contained in the Taxation Laws Amendment Bill 2015*. Retrieved from: http://www.treasury.gov.za/publications/RetirementReform/20151124%20Advantages%20of%20reforms.pdf

National Treasury South Africa. (2021). *Encouraging South African households to save more for retirement.* Retrieved from: http://www.treasury.gov.za/comm_media/press/2021/2021121401%20Two-pot%20system%20retirement%20proposal%20and%20auto%20enrolment.pdf

Niu, G., Zhou, Y., & Gan, Y. (2020). Financial literacy and retirement preparation in China. *Pacific-Basin Finance Journal*, *59*(1), 2-17.

Nkoutchou, H., & Eiselen, R. (2012). Retirement saving behaviour of young adults in the financial services sector. *Journal of Economic and Financial Sciences*, *5*(1), 31-48.

Noone, J., Alpass, F., & Stephens, C. (2010). Do men and women differ in their retirement planning? Testing a theoretical model of gendered pathways to retirement preparation. *Research on Aging*, *32*(6), 715-738.

Nunn, C. (2017). *The Future of Retirement: Generations and Journeys*. HSBC. Retrieved from: http://www.esrefsah.ae/wp-content/uploads/2017/04/future-of-retirement-generations-and-journeys.pdf

OECD. (2011). *Measuring financial literacy: Questionnaire and guidance notes for conducting an internationally comparable survey of financial literacy*.

OECD. (2013). *Addressing women's needs for financial education.*
Oseifuah, E. (2010). Financial literacy and youth entrepreneurship in South Africa. *African journal of Economic and management studies*, *1*(2), 164-182.

Pallant, J. (2011). SPSS Survival manual: A step by step guide to data analysis using SPSS program (4^{th} ed.). Berkshire: McGraw-Hill Education.

Peng, C., Lee, K., & Ingersoll, G. (2010). An introduction to logistic regression analysis and reporting. *The Journal of Educational Research*, *96*(1), 3-14.

Poterba, J.M. (2014). Retirement security in an aging population. *American Economic Review, 104*(5), 1-30.

Rameli, R.S., & Marimuthu, M. (2018). A Conceptual Review on the Effect of Attitudes towards Retirement on Saving Intentions and Retirement Planning Behaviour. *SHS Web of Conferences*, *56*(2), 2-6.

Reddy, M. (2021, January 20). *The role of Net Replacement Ratios*. Retrieve from: https://www.sanlamintelligence.co.za/institutional/the-role-of-net-replacement-ratios/#:~:text=In%20the%20broadest%20sense%2C%20the,by%20their%20pre%2Dretirement%20salary.&text=One%20of%20the%20biggest%20areas,pre%2Dretirement%20salary%20is%20defined

Remenyi, D., Williams, B., Money, A., & Swartz, E. (1998). *Doing Research in Business and Management: An Introduction to Process and Method*. London: Sage

Reyers, M., Van Schalkwyk, C. H., & Gouws, D. G. (2014). The rationality of retirement preservation decisions: A conceptual model. *Journal of Economics and Behavioural Studies*, *6*(5), 418-431.

Reyers, M., Van Schalkwyk, C.H., & Gouws, D.G. (2015). Rational and behavioural predictors of pre-retirement cash-outs. *Journal of Economic Psychology*, *47*(1), 23-33.

Robson, C. (2002). *Real World Research* (2nd ed.). Oxford: Blackwell.

Rohwedder, S., & Willis, R.J. (2010). Mental retirement. *Journal of Economic Perspectives*, *21*(4), 119-138.

Rooij, M.J., Lusardi, A., & Alessie, J.M. (2011). Financial literacy and retirement planning in the Netherlands. *Journal of Economic Psychology*, *32*(4), 593-608.

SARS. (2018, January 20). *Tax free investments*. Retrieved from: http://www.sars.gov.za/TaxTypes/PIT/Pages/Tax%20Free%20Investments.aspx

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th ed.). Essex: Pearson Education Limited.

Scheresberg, C. (2013). Financial literacy and financial behaviour among young adults: Evidence and implications. *Numeracy*, *6*(2), 5.

Segel-Karpas, D., & Werner, P. (2014). Perceived Financial Retirement Preparedness and Its Correlates: A National Study in Israel. *The International Journal of Aging and Human Development*, *79*(4), 279-301.

Sekita, S. (2011). Financial literacy and retirement planning in Japan. *Journal of Pension Economics and Finance*, *10*(4), 637-656.

Stemler, S. (2001). *An overview of content analysis*. Scholar works: https://scholar works. Umass.edu/cgi/viewcontent.cgi?article=1100&context=pare

Struwig, J., Roberts, B., & Gordon, S. (2013). *Financial literacy in South Africa 2013 report*. Report by Human Sciences Research Council for the Financial Services Board.

Szinovacz, M., Chung, H., Mitsui, K., & Davey, A. (2008). *Reasons for leaving employment later in life: In search of the bridge job*. American Sociological Society.

Tamborini, C. R., & Purcell, P. (2016). Women's household preparation for retirement at young and mid-adulthood: Differences by children and marital status. *Journal of Family and Economic Issues*, *37*(2), 226-241.

Tavakol, M., & Dennick, R. (2011). Making sense of Cronbach's alpha. *International Journal of Medical Education, 2*(1), 53-55.

Tranmer, M., & Elliot, M. (2008). Binary Logistic Regression. Cathie Marsh for Census and Survey Research, paper 20.

The Office for National Statistics (2016). *What are your chances of living to 100?*. ONS. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/whatareyourchancesoflivingto100/2016-01-14

The World Bank, (2020, June 8). *The Global Economic Outlook During the COVID-19 Pandemic: A Changed World*. World Bank. https://www.worldbank.org /en/news/feature/2020/06/08/the-global- economic-outlook-during-the-covid-19-pandemic-a-changed-world

Ulriksen, M.S. (2020). *A Racialised Social Question: Pension Reform in Apartheid South Africa*. London: Palgrave Macmillan.

Vartanian, T.P. (2011). *Secondary Data Analysis: Pocket Guides to Social Work Research Methods*. New York: Oxford University Press Inc.

Van Dijk, H.G., & Mokgala, M. (2014). Does the administration of the Old Age Grant really benefit the rural poor?. *African Journal of Public Affairs*, *7*(4), 83-95.

Van Rooij, Lusardi, & Alessie. (2012). Financial literacy, retirement planning and household wealth. *The Economic Journal*, *122*(560), 449-478.

Wang, Y. (1995). Permanent income and wealth accumulation: A cross-sectional study of Chinese urban and rural households. *Economic Development and Cultural Change*, *43*(3), 523-50.

Wasik, J.F. (2019, April 15). *How Do You Define Retirement?*. Forbes. https://www.forbes.com/sites/johnwasik/2019/04/15/how-do-you-define-retirement/?sh=1430cb7a46ee

Wagner, C., Kawulich, B., & Garner, M. (2012). *Doing social research: A global context*. Berkshire: McGraw-Hill Higher Education.

Xu, L., & Zia, B. (2012). Financial literacy around the world: an overview of the evidence with practical suggestions for the way forward. *Policy Research Working Paper 6107,* 2-56.

Zikmund, W.G., Babin, B., Carr, J. & Griffin, M. (2012). *Business research methods* (8th ed.). Louisiana: Cengage Learning.

Appendices

Appendix 4.1: Survey questions and responses

Q1. What is your current Age?		
Answer Choices	Responses	
Under 18	0.70%	1
18-25	3.50%	5
26-30	19.58%	28
31-35	28.67%	41
36-40	24.48%	35
41-45	11.89%	17
46-50	7.69%	11
61-59	2.80%	4
60 or older	0.70%	1

Q2. What is your Gender?		
Answer Choices	Responses	
Female	46.15%	66
Male	53.85%	77
Other	0.00%	0

Q3. What is your Race or Ethnicity?		
Answer Choices	Responses	
Black or African American	33.10%	47
Coloured	7.04%	11
Indian/Asian	42.25%	60
White	17.61%	25

Q4. What is your Nationality?		
Answer Choices	Responses	
South African	97.90%	140
Other	2.10%	3

Q5. Which Province do you reside?		
Answer Choices	Responses	
Eastern Cape	2.14%	5
Free State	2.14%	4
Gauteng	88.57%	124
KwaZulu-Natal	5.71%	8
Limpopo	0.00%	0
Mpumalanga	0.00%	0
Northern Cape	0.71%	1
North West	0.71%	1

Q6. What is your current Marital Status?		
Answer Choices	Responses	
Married	54.55%	78
Single	27.27%	39
Separated/Divorced	7.69%	11
Living with partner	10.49%	15
Widowed	0.00%	0

Q7. How many Minors are within your care and live with you (aged 18 or younger only)?		
Answer Choices	Responses	
None	45.45%	65
1	23.08%	33
2	22.38%	32
3	9.09%	13
More than 3	0.00%	0

Q8. How many Elders are financially dependent on you and live with you (aged 18+)?		
Answer Choices	Responses	
None	58.04%	83
1	23.78%	34
2	11.89%	17
More than 2	6.29%	9

Q9. What is your current Annual salary?		
Answer Choices	Responses	
R1 – R226 000	8.39%	12
R226 001 – R353 100	9.09%	13
R353 101 – R488 700	12.59%	18
R488 701– R641 400	23.08%	33
R641 401 – R817 600	19.58%	28
R817 601 – R1 731 600	22.38%	32
R1 731 601 and above	4.90%	7

Q10. What is the highest level of Education you have completed?		
Answer Choices	Responses	
No schooling	0.70%	1
Primary schooling	0.00%	0
High school	3.50%	5
National Certificate	5.59%	8
Diploma	9.09%	13
Undergraduate (e.g. BCom/BA)	27.27%	39
Post Graduate (e.g. Honours)	42.66%	61
Professional (e.g. Chartered Accountant, Engineer)	11.19%	16

Q11. Do you live a Healthy Lifestyle?		
Answer Choices	Responses	
Healthy	20.98%	30
Moderately healthy	61.54%	88
No comment	10.49%	15
Moderately unhealthy	4.90%	7
Unhealthy	2.10%	3

Q12. What is your estimated current Pension Fund Contribution		
Answer Choices	Responses	
13.5%	55.17%	76
16%	17.24%	42
18.5%	12.07%	14
21%	5.17%	5
23.5%	5.17%	3
26%	0.00%	0
27.5%	5.17%	3

Q13. Imagine that five friends are given a gift of R1 000. If the five friends have to share R1000 equally, how much would each one get?			
Answer Choices	Score	Responses	
R 500	0/1	0.00%	0
R 50	0/1	0.00%	0
✓ R 200	1/1	100.00%	143
R 100	0/1	0.00%	0
don't know	0/1	0.00%	0

Q14. Imagine that you are gifted with R 1000 and that you invest the funds at a rate of return that is below inflation: In a years' time what would happen to your money?			
Answer Choices	Score	Responses	
I can buy MORE than I could today	0/1	4.20%	6
✓ I can buy LESS than I could today	1/1	81.51%	117
it depends on the inflation rate	0/1	5.04%	7
it depends on the rate of return	0/1	6.72%	10
it depends on the types of things that they want to buy	0/1	1.68%	2
don't know	0/1	0.84%	1

Q15. You lend R50 to a friend one evening and he gives you R55 back the next day. How much interest has he paid on this loan'			
Answer Choices	Score	Responses	
0	0/1	0.84%	1
-R5	0/1	0.84%	1
✓ R5	1/1	98.32%	141
R15	0/1	0.00%	0
don't know	0/1	0.00%	0

Q16. Suppose you put R1000 into a savings account with a guaranteed annual interest rate of 5% per year. You don't make any further payments into this account, and you don't withdraw any money. Roughly how much would be in the account at the end of the first year, once the interest payment is made?			
Answer Choices	Score	Responses	
✓ R 1 050	1/1	93.28%	133
R 1 025	0/1	5.88%	9
R 1 000	0/1	0.00%	0
R 980	0/1	0.84%	1
don't know	0/1	0.00%	0

Q18. The higher the rate of return would indicate that the investment is riskier			
Answer Choices	Score	Responses	
✓ True	1/1	93.28%	133
False	0/1	5.04%	7
don't know	0/1	1.68%	2

Q19. High inflation levels indicates that the cost of living is high and you can buy less for your money?			
Answer Choices	Score	Responses	
✓ True	1/1	95.80%	137
False	0/1	3.36%	5
don't know	0/1	0.84%	1

Q20. Portfolio diversification could assist you in reducing you risk and increasing your returns on your investment?			
Answer Choices	Score	Responses	
✓ True	1/1	95.87%	137
False	0/1	3.31%	5
don't know	0/1	0.83%	1

Q21. At what age did you Start Planning for retirement?		
Answer Choices	Responses	
younger than 18	0.86%	1
18-25	31.90%	46
26-30	46.55%	67
31-35	13.79%	20
36-40	1.72%	2
41-45	3.45%	5
46-50	0.86%	1
51-59	0.86%	1
60+	0.00%	0

Q22. At what age do you think you should start planning for retirement?		
Answer Choices	Responses	
18-25	85.47%	122
26-30	7.69%	11
31-35	0.85%	1
36-40	0.85%	1
41-45	0.00%	0
46-50	1.71%	2
51-59	0.00%	0
60+	0.00%	0
younger than 18	3.42%	5

Q23. At what age did you start contributing towards retirement?		
Answer Choices	Responses	
18-25	29.06%	42
26-30	59.83%	86
31-35	8.55%	12
36-40	0.85%	1
41-45	0.85%	1
46-50	0.85%	1
51-59	0.00%	0
60+	0.00%	0

Q24. What is your financial plan for retirement? (you may select more than 1 option)		
Answer Choices	Responses	
Government pension	6.84%	10
Workplace pension	57.26%	82
Retirement and personal savings	82.91%	119
Selling your assets	11.97%	17
Use an inheritance	4.27%	6
Rely on spouse, children or wider	2.56%	4
Draw income from own business	23.08%	33
Property or share portfolio (Interest and Dividend Income)	44.44%	64
Continue to work	20.51%	29
No plan	1.71%	2

Q25. How Confident are you about your retirement plan?		
Answer Choices	Responses	
Very confident	11.89%	17
Fairly confident	37.76%	54
Not very confident	34.97%	50
Not at all confident	14.69%	21
Don’t know	0.00%	0

Q26. When did you last review your retirement plan?		
Answer Choices	Responses	
less than a year	12.55%	18
in the last 2 years	42.20%	60
in the last 5 years	36.70%	53
longer than 5 years	8.55%	12

Q27. Who currently assists you with a retirement planning discussion?		
Answer Choices	Responses	
Financial planner/advisor	59.83%	86
Private Banker	3.42%	5
Family or friend	5.98%	9
Work colleagues	0.85%	1
Own research (no one)	29.91%	43

Q28. Do you have personal savings or additional retirement contributions apart from your pension fund?		
Answer Choices	Responses	
Yes	75.42%	108
No	24.58%	35
don't know	0.00%	0

Q29. Do you know where to find your pension fund benefit statement?		
Answer Choices	Responses	
Yes	8.55%	12
No	91.45%	131

Q30. Do you understand the contents of your benefit statement?		
Answer Choices	Responses	
Yes	12.71%	18
No	87.29%	125

Q31. Do you know if your pension fund projection is at a Shortfall or Surplus?		
Answer Choices	Responses	
Yes	26.27%	38
No	73.73%	105

Q32. If you have a shortfall in your pension fund projection, do you know how to supplement that shortfall?		
Answer Choices	Responses	
Yes	31.36%	45
No	68.64%	98

Q33. Do you know what your pension fund comprises of and which asset classes you are invested in?		
Answer Choices	Responses	
Yes	32.20%	46
No	67.80%	97

Q34. Do you know what tax bracket you are on and how your retirement fund is impacted from a tax perspective?		
Answer Choices	Responses	
Yes	27.12%	39
No	72.88%	104

Q35. Starting to plan and contribute towards retirement sooner rather than later will assist will you in achieving your retirement goals due to compound interest?		
Answer Choices	Responses	
Yes	97.46%	139
No	2.54%	4

Q36. Why do you think that you are you not able to save enough towards retirement? (you may select more than 1 option)		
Answer Choices	Responses	
I don't know how to	4.27%	5
I have too many living expenses	47.01%	55
All of my disposable income goes towards items other than my li	16.24%	19
I am servicing too much of debt	20.51%	24
I enjoy a lavish lifestyle versus saving towards retirement	9.40%	11
I CAN save enough towards retirement	43.59%	51

Q37. Do you feel that planning for retirement is important?		
Answer Choices	Responses	
Yes	100.00%	143
No	0.00%	0
I don't know	0.00%	0

Q38. Do you think that because your current financial situation you are not able to prioritise retirement the way you should be?		
Answer Choices	Responses	
Strongly agree	22.88%	33
Agree	39.83%	57
No comment	20.34%	29
Disagree	10.17%	15
Strongly disagree	6.78%	9

Q39. Do you live for the here and now?		
Answer Choices	Responses	
Strongly agree	3.39%	5
Agree	17.80%	25
Neither agree nor disagree	27.12%	39
Disagree	38.14%	55
Strongly disagree	13.56%	19

Q40. Do you think that you will not make it to retirement age for some reason and that is why retirement planning is not prioritised?		
Answer Choices	Responses	
Strongly agree	0.85%	1
Agree	7.63%	11
Neither agree nor disagree	21.19%	30
Disagree	47.46%	68
Strongly disagree	22.88%	33

Q41. Do you believe that you can save for retirement at a later date when your income increases versus now?		
Answer Choices	Responses	
Strongly agree	7.69%	11
Agree	27.35%	39
Neither agree nor disagree	11.11%	16
Disagree	39.32%	56
Strongly disagree	14.53%	21

Q42.1)Have you actively thought about retirement and how you want to retire? (E.g. House on the beach and a little coffee shop)		
Answer Choices	Responses	
Strongly agree	24.58%	35
Agree	46.61%	67
Neither agree nor disagree	13.56%	19
Disagree	13.56%	19
Strongly disagree	1.69%	3

Q43. When I retire, I expect the same standard of living I enjoyed before retiring.		
Answer Choices	Responses	
Strongly agree	33.05%	47
Agree	49.15%	70
Neither agree nor disagree	7.63%	11
Disagree	10.17%	15
Strongly disagree	0.00%	0

Q44. Based on the questions completed in this survey what is your take around retirement planning now? (E.g. "Some of the questions are things I did not think about before and are things that I now need to consider")		
Answer Choices	Responses	
Yes	76.92%	110
No	23.08%	33

Q45. Often people find that their income does not quite cover their living expenses. In the last 12 months, has this happened to you?		
Answer Choices	Responses	
Yes	69.93%	100
No	30.07%	43

Q46. Do you have a monthly budget in place to cater for your monthly expenses?		
Answer Choices	Responses	
Yes	14.91%	21
No	85.09%	122
I do not know what a budget is	0.00%	0

Q47. If you have a budget in place, do you actively track and stick to the plan?		
Answer Choices	Responses	
Yes	35.09%	44
No	64.91%	93
I don't have a budget in place	4.39%	6

Q48. How often do you find yourself taking out credit?		
Answer Choices	Responses	
Weekly	0.88%	1
Monthly	61.40%	88
Bi – Annual (twice a year)	7.89%	11
Yearly	9.65%	14
I hardly take out credit	20.18%	29

Q49. Do you use credit to fund your lifestyle?		
Answer Choices	Responses	
Often	1.77%	3
Most of the time	3.54%	5
Occasionally	42.48%	61
Not at all	52.21%	75
I do not track my credit spend	0.00%	0

Q50. If there is something that you really want to purchase, do you save and purchase that item at a later stage or would you rather use credit to have the item now?		
Answer Choices	Responses	
Use credit and purchase now	32.46%	46
Save and purchase the item at a later date	60.53%	87
Not purchase the item altogether as it is not in your budget	7.02%	10

Q51. Do you have find that you have a surplus of funds at the end of the month or do you go into an overdraft or excess'		
Answer Choices	Responses	
I often have surplus funds	40.35%	58
I seldom have surplus funds	30.70%	44
I often go into excess or an overdraft facility	14.04%	20
I seldom go into excess or an overdraft facility	14.91%	21

Q52. If you have R500 remaining at the end of the month, would you spend this on yourself or save towards savings/retirement?		
Answer Choices	Responses	
Spend on myself/household	49.56%	71
Save towards a savings/retirement goal	50.44%	72

Q53. Do you prioritise spending and living for the NOW versus saving towards your retirement later?		
Answer Choices	Responses	
Spend now	38.60%	55
Save for retirement now and spend later	61.40%	88

Q54. Do you feel that the current social culture created by social media impacts the way in which you spend?		
Answer Choices	Responses	
Yes	52.63%	75
No	42.98%	62
I don't have social media	4.39%	6

Source: *Authors Computation*