BLACK GENERATION Y STUDENTS' KNOWLEDGE OF AND ATTITUDES TOWARDS PERSONAL FINANCIAL MANAGEMENT

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November 2013

Vanderbijlpark

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I declare that:

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is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references, and that this dissertation has not previously been submitted by me for a degree at any other university..

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M van Deventer

November 2013

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LETTER FROM THE LANGUAGE EDITOR

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To whom it may concern

This is to confirm that I, the undersigned, have language edited the completed research of M. van Deventer for the Magister Commercii thesis entitled: *Black Generation Y students' knowledge of and attitudes towards personal financial management.*

The responsibility of implementing the recommended language changes rests with the author of the thesis.

Yours truly,

Linda Scott

DEDICATION

I would like to dedicate this dissertation to Jesus Christ and my parents, Danie and Ansie van Deventer.

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With the submission of this dissertation, I acknowledge with gratitude the assistance, encouragement, and support of all the persons involved in this study. In particular, I would like to sincerely thank the following:

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- The students who took part in the final study.

Heb 13:5-6 - Let your conversation be without covetousness, and be content with such things as ye have for He hath said, I will never leave thee, nor forsake thee. So that we may boldly say, The Lord is my helper, and I will not fear what man shall do unto me.

Marko van Deventer
Vanderbijlpark
2013

ABSTRACT

BLACK GENERATION Y STUDENTS' KNOWLEDGE OF AND ATTITUDES TOWARDS PERSONAL FINANCIAL MANAGEMENT

KEY WORDS: personal financial management, personal financial planning, financial literacy, black Generation Y students, South Africa.

The effective and efficient management of personal finances is critical for everyone, particularly in a world where uncertainties prevail. Owing to continuous change, new financial challenges frequently confront individuals that culminate ultimately in uncertainties concerning individuals' financial position and future. Having low levels of debt, an active savings and retirement plan, as well as following an expenditure plan, will lead to financial wellness, which demonstrates an active state of financial wealth. A comprehensive financial plan makes individuals attentive when dealing with financial issues, and acts as a guide when making financial decisions.

Owing to insufficient financial literacy and skills, personal financial management is challenging and often results in erroneous financial decisions. Financial knowledge forms the basis for financial skills and competence, which are influenced by personal attitudes in both spending and saving. Therefore, in order to plan effectively, and control and manage financial risks and opportunities in the future, financial skills and abilities are essential. Adequate financial knowledge and skills lead to effective personal financial management and sound financial decisions in the short-term as well as in the long-term. Planning for financial independence should start as early as possible during the financial life cycle, usually at 18 years of age.

Students are a rewarding market for financial institutions such as banks, insurance companies, pension funds and brokerage companies, potentially leading the way forward to establish brand-loyalty throughout adulthood. However, the lack of financial management and planning experience, as well as financial literacy and financial skills, make students particularly susceptible to the aggressive marketing tactics of financial institutions, which may be harmful to students' financial freedom. As such, financial institutions and professionals have to gauge effective ways to convey financial knowledge and product information to a target market to deliver improved financial service as well as

understand the relevant consumer behavioural aspects of a target market when developing marketing strategies. Published literature on the South African Generation Y consumer behaviour is limited and none that is focused specifically on attitudes towards personal financial planning, financial literacy and perceived personal financial management skills of the significantly sized black Generation Y cohort. This cohort is defined as individuals born between 1986 and 2005. In South Africa, Generation Y individuals accounted for 38 percent of the South African population, with the black Generation Y individuals representing 83 percent of this generational cohort. Additionally, the black Generation Y cohort of South Africa account for approximately 32 percent of the total population, resulting in a highly salient market segment. Of particular interest to marketers and professionals, including financial institutions and those involved in financial management, especially financial planning, are those individuals attaining tertiary qualifications, and as such they are likely to enjoy higher earnings and a higher social standing, which together is likely to make them opinion leaders and trendsetters amongst their peers.

The primary objective of this study was to investigate black Generation Y students' knowledge of and attitudes towards personal financial management within the South African context.

The target population, relevant to this study, was defined as full-time undergraduate black Generation Y students, aged between 18 and 24 years, enrolled at South African registered public higher education institutions (HEIs).

From the sampling frame, comprising 23 registered South African public HEIs, one traditional university and one university of technology located in the Gauteng province, were selected using a judgement sampling method. A convenience sample of 400 full-time black Generation Y students, who were enrolled at these two South African HEIs during 2013, was drawn for this study.

To conduct this study, a structured format was applied where lecturers of the applicable classes were contacted and permission was requested to carry out the survey. Thereafter, during the scheduled class times of the full-time undergraduate students, hand delivered self-administered questionnaires were distributed for completion, which were collected thereafter.

The students' attitudes towards personal financial planning were measured on a six-point Likert scale, whereby participants were requested to indicate the extent of their agreement/disagreement with items pertaining to personal financial planning. The students' financial literacy was measured, using multiple-choice questions, whereby the students were asked to choose one of the four alternatives provided. The students' perceived personal financial management skills were measured on a six-point Likert scale, whereby the participants were requested to indicate the extent of their agreement/disagreement with items pertaining to personal financial management skills. Additionally, certain demographical data were requested from the participants.

The findings of this study indicate that South African black Generation Y students exhibit a positive attitude towards personal financial planning, have low levels of financial literacy and perceive themselves as being equipped with having the necessary personal financial management skills. More specifically, students' attitudes towards estate planning were ranked the highest, whereas attitudes towards the financial planning process were raked the lowest. In terms of financial literacy, students scored the highest in general financial knowledge and the lowest in spending related financial literacy questions. Students' perceptions towards decision-making skills were rated the highest, whereas stress management skills were rated the lowest.

Insights gained from this study will help academics, government, financial institutions and other economic role players understand current black Generation Y consumers' attitudes towards personal financial planning, their level of financial literacy and their perceived personal financial management skills.

OPSOMMING

SWART GENERASIE Y STUDENTE SE KENNIS VAN EN HOUDINGS JEENS PERSOONLIKE FINANSIËLE BESTUUR

SLEUTEL WOORDE: persoonlike finansiële bestuur, persoonlike finansiële beplanning, finansiële geletterheid, swart Generasie Y studente, Suid-Afrika.

Die doeltreffende en doelmatige bestuur van persoonlike finansies is baie belangrik vir almal, veral in ŉ wêreld waar onsekerhede aan die orde van die dag is. As gevolg van voortdurende veranderinge word individue dikwels blootgestel aan nuwe finansiële uitdagings wat uiteindelik lei tot onsekerhede rakende die individu se finansiële posisie en toekoms. Lae vlakke van skuld, ŉ aktiewe spaar- en aftree-plan sowel as die volg van ŉ bestedingsplan, sal tot finansiële welstand lei, wat weer ŉ aanduiding van finansiële welvaart is. ŉ Omvattende finansiële plan fokus individue se aandag wanneer hulle finansiële sake hanteer en dit dien ook as riglyn wanneer finansiële besluite geneem moet word.

As gevolg van gebrekkige finansiële kennis en vaardighede, is persoonlike finansiële bestuur uitdagend en lei dit dikwels tot verkeerde finansiële besluite. Finansiële kennis vorm die grondslag vir basiese finansiële vaardighede en bevoegdheid wat verder beïnvloed word deur persoonlike houdings ten opsigte van beide spaar en besteding. Ten einde effektief te beplan, asook toekomstige finansiële risiko's en geleenthede te beheer en bestuur, is finansiële vaardighede en vermoëns noodsaaklik. Voldoende finansiële kennis en vaardighede lei tot effektiewe persoonlike finansiële bestuur en goeie finansiële besluite op die kort- sowel as die langtermyn. Beplanning vir finansiële onafhanklikheid moet so vroeg as moontlik in die finansiële siklus begin, gewoonlik op 18-jarige ouderdom.

Studente is ŉ lonende mark vir finansiële instellings soos banke, versekeringsmaatskappye, pensioenfondse en makelaars wat die weg baan om lewenslange merk-lojaliteit te vestig. Die gebrek aan finansiële bestuur- en beplanningservaring, finansiële geletterdheid en finansiële vaardighede, maak studente besonder weerloos teen die aggressiewe bemarkingstrategieë van finansiële instellings. Hierdie weerloosheid kan skadelik wees vir die studente se finansiële vryheid. Finansiële

instellings behoort dus effektiewe maniere te gebruik om finansiële kennis en produkinligting aan die teikenmark oor te dra as 'n verbeterde finansiële diens. Hulle behoort ook 'n goeie begrip te hê van die toepaslike gebruikersgedrag van die betrokke teikenmark wanneer hulle strategieë ontwikkel. Gepubliseerde literatuur oor die Suid-Afrikaanse Generasie Y se gebruikersgedrag is beperk en daar is niks wat spesifiek gefokus is op die houdings jeens persoonlike finansiële beplanning, finansiële geletterdheid en veronderstelde finansiële bestuursvaardighede van die beduidende groot swart Generasie Y groep nie. Hierdie groep word gedefinieer as individue wat tussen 1986 en 2005 gebore is. In Suid-Afrika vorm die Generasie Y groep 38% van die bevolking, terwyl swart individue 83% van die Generasie Y groep uitmaak. Verder, verteenwoordig die swart Generasie Y groep ongeveer 32% van die totale Suid-Afrikaanse bevolking wat hulle 'n baie belangrike marksegment maak. Bemarkers en professionele persone soos finansiële instellings en diegene betrokke in finansiële bestuur, veral finansiële beplanning, is veral geïnteresseerd in individue wat tersiêre kwalifikasies behaal omdat hulle potensieel 'n hoër verdienste en hoër sosiale status geniet. Hulle is dus waarskynlik die toekomstige meningsvormers en toonaangewers onder hulle eweknieë.

Die primêre doelwit van hierdie studie was om die kennis van en houdings jeens persoonlike finansiële bestuur onder swart Generasie Y studente binne die Suid-Afrikaanse konteks te ondersoek. Die teikenpopulasie van toepassing vir hierdie studie is gedefinieer as voltydse voorgraadse swart Generasie Y studente tussen die ouderdomme van 18 en 24 jaar wat ingeskryf is by enige geregistreerde Suid-Afrikaanse hoër onderwysinstelling (HOI).

Vir die steekproef uit die 23 Suid-Afrikaanse openbare HOIs, is een tradisionele universiteit en een universiteit van tegnologie in die Gauteng provinsie gekies deur van die oordeelstegniek gebruik te maak. 'n Geriefsteekproef van 500 voltydse swart Generasie Y studente wat by die twee Suid-Afrikaanse HOIs ingeskryf is, is gedurende 2013 gedoen.

Om hierdie studie uit te voer is daar van 'n gestruktureerde formaat gebruik gemaak. Dosente van toepaslike klasse is geskakel en toestemming verkry om die opname uit te voer. Daarna is 'n self-geadministreerde vraelys gedurende klastyd aan die voltydse voorgraadse studente uitgedeel om te voltooi en weer opgeneem.

Die studente se houding jeens finansiële beplanning is op ’n 6-punt Likert-skaal gemeet waarvolgens deelnemers gevra is om die mate waartoe hulle saamstem/verskil met verskillende items aangaande finansiële beplanning, aan te dui. Die studente se finansiële kennis is met multikeuse vrae getoets. Die deelnemer moes een van vier alternatiewe kies. Die student se veronderstelde persoonlike finansiële bestuursvaardigheid is ook met ’n 6-punt Likert-skaal gemeet waar die deelnemers moes aandui in watter mate hulle saamstem/verskil met ’n aantal stellings oor persoonlike finansiële bestuursvaardighede. Sekere demografiese inligting is ook versoek van die deelnemers.

Die bevindings van die studie dui aan dat Suid-Afrikaanse swart Generasie Y studente ’n positiewe houding het jeens persoonlike finansiële beplanning; dat hulle lae vlakke van finansiële kennis het en dat hulle, hulle self beskou as toegerus met die nodige persoonlike finansiële bestuursvaardighede. Studente se houding jeens boedelbeplanning was die hoogste en dié jeens die finansiële beplanningsproses die laagste. Wat finansiële geletterdheid betref, het die studente die beste gevaar in algemene finansiële kennis en die swakste in die vrae oor besteding. Studente se persepsies aangaande besluitnemingsvaardighede was die hoogste terwyl streshanteringsvaardighede die laagste gemeet het.

Insigte wat uit hierdie studie verkry is, kan akademici, regerings- en finansiële instellings, en ander ekonomiese rolspelers help om die huidige swart Generasie Y gebruikers se houdings jeens persoonlike finansiële beplanning, hulle finansiële geletterdheidsvlak en hulle veronderstelde persoonlike finansiële bestuursvaardighede te verstaan.

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CHAPTER 1

INTRODUCTION AND PROBLEM STATEMENT

"Knowledge has to be increased, challenged, improved constantly, or it vanishes."

— Peter Drucker

1.1 INTRODUCTION

The effective and efficient management of personal finances is critical for everyone (Chinen & Endo, 2012:779), particularly in a world where uncertainties prevail (Mazzucato *et al.,* 2010:12). As a result of continuous change, individuals are frequently confronted with new financial challenges, which ultimately culminate in uncertainties concerning individuals' financial position and future (Swart, 2012:2). According to Botha *et al.* (2012:5), individuals need to plan for their retirement, their children's education, as well as consider other long-term investments, short-term savings and borrowings, and medical and life insurance requirements.

James *et al*. (2002:35) indicate that many households express no intent to save at all, choosing to rather avoid the many warning signs, such as the decreasing buying power of money, unemployment and increased financial risk that abound in the financial- and economic environment (Shim *et al.,* 2009:708). Students are no different from the rest of the population in this regard. Worryingly though, retirement planning, for the vast majority, ranks very low on their list of priorities, if it exists at all. Furthermore, individuals are reluctant to plan for the possibility of early retirement brought on by limited employment opportunities (Van Gijsen, 2002:1). Swart (2012:2) opines that people, including students, take risks with their financial freedom, due to either a lack of understanding the value of financial management, or by ignoring the necessary financial matters, thereby becoming apprehensive or uneasy when thinking about financial management issues. Following basic personal financial management principles guarantees a prosperous financial future.

Altfest (2004:53) states that personal financial management involves a process of managing financial resources in order to achieve personal economic satisfaction, and due to the fact that individuals move through different life cycle stages, resulting in their goals

and needs changing, personal financial management has become a self-motivated process. Being debt free or having low levels of debt, an active savings and retirement plan, as well as adhering to the plan, will lead to financial wellness, which demonstrates an active state of financial wealth (Chinen & Endo, 2012:778; Rutherford & Fox, 2010:469). Boon *et al.* (2011:150) maintain that financial freedom does not necessarily propose great wealth but rather that individuals optimally utilise income, irrespective of the level of that income. A comprehensive financial plan makes individuals attentive when dealing with financial issues and acts as a guide when making financial decisions, underlying the consequences of the decisions on other financial areas (Botha *et al.*, 2012:1).

Swart (2012:5) defines personal financial planning as the organisation of an individual's financial and personal data for establishing a strategic plan to manage income, assets and liabilities in a constructive manner to satisfy short- and long-term goals and objectives. Understanding money matters and the financial management process are prerequisites for efficient personal financial planning and management (Boon *et al.*, 2011:150). According to Swart (2012:5), individuals invest their personal assets and income as economically as possible in order to guarantee financial security during their working life, as well as after retirement. These investments are possible because of adequate financial literacy.

Owing to insufficient financial literacy and skills, personal financial management is a challenging obstacle and often results in erroneous financial decisions (Boon *et al.*, 2011:151). Cude *et al.* (2006:103) explain that financial literacy involves a process by which individuals utilise a grouping of resources, skills and background knowledge to effectively manage information and make decisions with insight of the financial consequences of that decision. According to Van Nieuwenhuyzen (2009:96), financial literacy comprises the capacity to read, manage, analyse and communicate about one's personal financial state of affairs that influence material well-being. Financial literacy includes the capability to distinguish between financial options, discuss money and financial issues without (or regardless of) uneasiness, plan for the future and respond knowledgeably to life events that influence everyday financial decisions, including events in the broad economy (Symanowitz, 2006:1).

Hogarth (2002:14) states that financially literate individuals should be viewed in behavioural terms; that is, being well-informed on the issues of financial management and various other financial matters such as assets, banking, investments, credit, insurance and

taxes. Furthermore, Swart (2012:3) adds that financially literate individuals understand fundamental concepts underlying money and asset management, and it enables them to employ the financial knowledge and understanding to plan and implement financial decisions.

It is evident that inadequate financial management and planning will ultimately result in high financial debt, severe credit card usage, high stress levels as well as low financial security (Sabri *et al.*, 2010:456). Therefore, it is essential to manage financial resources for everyday life activities (Falahati, Paim *et al.*, 2011:6086). The only way individuals can obtain financial security, and ultimately, long-term financial well-being, is through financial education (Chinen & Endo, 2012:779), which will enable better financial decision-making, benefiting the entire family (Hilgert *et al.*, 2003:309). However, Benn (2003:218) explains that an understanding of consumption, as reasoned behaviour or action, is inadequate in modern society, where globalisation, cultural changes and individual liberalisation are characteristics of consumerism. Therefore, it may be inferred that consumption is part of the youth's socialisation and it plays a critical role in identity and self-concept development. The financial skills and abilities of students need to be understood, since their future financial freedom and personal well-being will be seriously impacted by their financial behaviour.

Swart (2012:3) defines financial skills and abilities as the knowledge and understanding that allow individuals to obtain the necessary skills to deal with everyday financial issues more effectively, and to make better and more informed decisions about the application of limited resources to reach financial goals. Financial information and financial literacy are referred to as financial knowledge. However, financial skills is the ability to apply such knowledge to make financial decisions and to effectively conduct financial planning, including understanding and managing a wide range of financial contexts such as situations that are predictable and unpredictable (Kempson *et al.*, 2006:40). Leskinen and Raijas (2006:8) highlight that financial knowledge and understanding form the basis for financial skills and competence, and that personal attitudes towards financial planning such as spending and saving influences these skills. Therefore, in order to effectively plan, control and manage financial risks and opportunities in the future, financial skills and abilities are essential.

Financial skills and knowledge are ascribed to numerous factors as shown in research conducted by Joo and Grable (2004:25), including income, age, education and socialisation. Falahati, Paim *et al.* (2011:6087) indicate that financial skills are based on three factors, namely demographic characteristics such as age, sex, education, values and attitudes or habits; an individual's life cycle stage, the direct environment, such as family and socialisation; and the macro environment, which includes society as well as the social, economic and cultural surroundings. Sabri *et al.* (2008:167) stipulates that financial knowledge is a strong forecaster of financial behaviour and a preventative factor of financial problems. Adequate financial knowledge and skills lead to effective personal financial management and sound financial decisions in the short-term as well as in the long-term. Individuals should start planning for financial independence as early as possible during the financial life cycle, usually from 18 years of age.

In generational studies, the youth are classified as Generation Y and are defined by Markert (2004:21) as those individuals born between 1986 and 2005, which, in 2013, puts them at nine to 28 years of age. South Africa's population totalled around 52 981 991 in 2013, of which an estimated 38 percent formed part of the Generation Y cohort. In terms of race, the African portion of this Generation Y cohort (hereafter referred to as black Generation Y) accounted for approximately 83 percent of the South African Generation Y cohort, and 32 percent of the total South African population (Statistics South Africa, 2013). The significant size of the black Generation Y market makes them salient to industry professionals, including financial institutions and those involved in financial management, especially in financial planning.

1.2 THE PROBLEM STATEMENT

Personal financial satisfaction arises from the ability to manage financial resources effectively. Owing to increased exposure to marketing activities, stemming from increasing competition for consumers' money, individuals face greater challenges in managing their finances (Falahati, Paim *et al.*, 2011:6089). Worryingly though, James *et al.* (2002:35) found a significant amount of students expressed little concern about their financial status, future wealth and retirement planning, even though various business courses comprise financial management content that focuses on the importance of managing and maximising wealth.

According to Borden *et al.* (2008:24), because parents are typically the primary caretakers, most students go through their tertiary education without taking any responsibility for their personal finances. Chinen and Endo (2012:778); and Gutter and Copur (2011:699) concur with this statement. While attending tertiary education institutions, students need to manage their expenses; however, various authors (Norvilitis & Santa Maria, 2002:356; Sabri *et al.,* 2012:153) opine that many students are likely to use credit unwisely and irresponsibly due to a lack of budgeting experience. Although students have wide access to various financial services, such as education loans and credit cards (Robb & Sharpe, 2009:29), they are often considered a high-risk group when it comes to finances because of the lack of financial management knowledge, and experience in managing their financial resources successfully (Sabri *et al.,* 2012:153). This may lead to financial problems and ineffective financial behaviours and attitudes, such as low levels of savings (Sabri & MacDonald, 2010:103), inadequate record keeping (Norvilitis *et al.,* 2006:1396) and increased liabilities such as credit card debt (Goldsmith & Goldsmith, 2006:55; Warwick & Mansfield, 2000:619). As indicated by Sabri *et al.* (2012:154), high debt levels, low income levels and low levels of financial literacy combined, will have negative consequences on tertiary students' financial well-being.

Students are a rewarding market for financial institutions (Warwick & Mansfield, 2000:618), potentially leading the way forward to establish brand-loyalty throughout adulthood. Nonetheless, the lack of financial management and planning experience, such as financial planning, financial literacy, and financial skills, make students particularly susceptible to the aggressive marketing tactics of financial institutions, which may be harmful to students' financial freedom (Borden *et al.,* 2008:24). Joo *et al.* (2003:405) postulate that the immediate effect of credit card usage is often misunderstood by students, owing to the lack of knowledge on the fee structures employed for credit card use or the penalties that financial institutions apply when failing to comply with the terms and conditions of use (Norvilitis *et al.,* 2006:1397).

In addition to the short-term effects, the long-term consequences related to the misuse of credit are much more severe and often overlooked by many students, and will therefore lead to psychological costs associated with financial problems, such as increased levels of stress and decreased levels of well-being, which students have to account for (Joo & Grable, 2004:32; Shim *et al.,* 2009:708). The long-term consequences include years of

financial debt, low credit scores delaying future plans, and in immoderate cases, personal bankruptcy (Borden *et al.*, 2008:24).

The most general cited explanation for students who cease their education, as revealed in research, is financial pressure (Falahati, Paim *et al.*, 2011:6089). Students tend to make sensible financial decisions related to savings, credit and investments and have sensible opinions with regards to finance, if they have high levels of financial knowledge (Joo & Grable, 2004:30; Norvilitis *et al.*, 2006:1397). Financial knowledge, as indicated by Kempson *et al.* (2006:39), has the greatest effect of all the factors considered being indicative of responsible financial behaviour. Student's financial resources are obtained from various sources, with parents, loans, credit cards, and income from part time employment, being basic financial sources. Therefore, financial management skills and knowledge are essential to assist students in matching their needs with financial resources (Leskinen & Raijas, 2006:11). Financial literacy includes understanding financial activities such as the function of money and the use of financial services (Swart, 2012:3).

From the literature, it is evident that several studies have been conducted in the international markets regarding financial literacy. There have been three main scholarly studies on financial literacy of university students. Danes and Hira (1987) carried out the first study to examine the financial management knowledge of university students. Next, Volpe *et al.* (1996) explored the personal investment literacy of university students. Two years later, Chen and Volpe (1998) studied the personal financial knowledge of university students. An extensive search of the literature unveiled no similar or related studies pertaining to personal financial management, conducted with students as the target population, in South Africa. Therefore, there is a dearth of published research in this regard, in South Africa. Moreover, there is a definite lack of empirical research on this topic.

Swart (2012:2) believes that the major challenge faced by the South African population, because of the South African educational systems' failure to provide structured and targeted education and training of schoolchildren, students and adults in the field of personal financial management, is financial empowerment. This failure in the education system may possibly lead to a financially illiterate community with no perceptiveness into its financial dealings, and a possible resultant adverse impact on the micro venture, the economy, and the personal financial circumstances of millions of people in this country.

Owing to the continuous increase in the elderly population, combined with a longer life expectancy, well-planned personal financial management has become a necessity (Kapoor *et al.*, 2004:4). Nevertheless, little effort has been conducted to present comprehensive support in measuring attitudes towards personal financial planning and management (Lai & Tan, 2009:100).

Through better understanding students' attitudes towards personal financial planning, their financial management skills and fostering their financial knowledge, the results of this study may aid in creating awareness of certain shortfalls in South African black Generation Y students' personal financial management. This in turn will aid financial institutions and professionals in gauging effective ways to convey financial knowledge and product information to this target market to deliver improved financial service. This is likely to benefit the nation as a whole.

1.3 OBJECTIVES OF THE STUDY

The following objectives were formulated for the study:

1.3.1 Primary objectives

The primary objective of this study was to investigate black Generation Y students' knowledge of and attitudes towards personal financial management.

1.3.2 Theoretical objectives

In order to achieve the primary objective, the following theoretical objectives were formulated for the study:

- Review the literature on personal financial management
- Conduct a review of the literature on personal financial planning
- Conduct a review of the literature regarding financial literacy, in the context of personal financial planning
- Review the literature on personal financial management skills
- Conduct a review of the literature pertaining to the Generation Y cohort.

1.3.3 Empirical objectives

In accordance with the primary objective of the study, the following empirical objectives were formulated:

- Determine black Generation Y students' attitudes towards personal financial planning such as the financial planning process, credit planning, insurance planning, investment planning, retirement planning and estate planning.
- Determine whether black Generation Y students' attitudes towards personal financial planning differ according to their demographic profiles such as gender, year of study and source of income.
- Determine black Generation Y students' level of financial literacy, in the context of personal financial planning such as general financial knowledge, saving, spending and debt literacy.
- Determine whether black Generation Y students' level of financial literacy, in the context of personal financial planning, differ according to their demographic profiles such as gender, year of study and source of income.
- Determine black Generation Y students' perceived personal financial management skills.
- Determine whether black Generation Y students' attitudes towards their perceived personal financial management skills differ according to their demographic profiles such as gender, year of study and source of income.
- Determine the relationship between black Generation Y students' attitude towards personal financial planning, their level of financial literacy and their perceived personal financial management skills.

1.4 HYPOTHESES

In line with these empirical objectives, 11 hypotheses were formulated for the study. The following hypotheses were formulated in Chapter 4, following the analysis of the reliability (based on the low reliability the retirement construct was excluded from hypotheses testing):

Ho1: Black Generation Y students do not have a significant positive attitude towards the financial planning process.

Ha1: Black Generation Y students do have a significant positive attitude towards the financial planning process.

Ho2: Black Generation Y students do not have a significant positive attitude towards credit planning.

Ha2: Black Generation Y students do have a significant positive attitude towards credit planning.

Ho3: Black Generation Y students do not have a significant positive attitude towards insurance planning.

Ha3: Black Generation Y students do have a significant positive attitude towards insurance planning.

Ho4: Black Generation Y students do not have a significant positive attitude towards investment planning.

Ha4: Black Generation Y students do have a significant positive attitude towards investment planning.

Ho5: Black Generation Y students do not have a significant positive attitude towards estate planning.

Ha5: Black Generation Y students do have a significant positive attitude towards estate planning.

Ho6: There is no significant difference between black Generation Y students' attitudes towards personal financial planning (the financial planning process, credit planning, insurance planning, investment planning and estate planning) in terms of gender, year of study and source of income.

Ha6: There is a significant difference between black Generation Y students' attitudes towards personal financial planning (the financial planning

process, credit planning, insurance planning, investment planning and estate planning) in terms of gender, year of study and source of income.

Ho7: Black Generation Y students have the same financial literacy scores on all of the constructs (general financial knowledge, saving, spending and debt) of financial literacy.

Ha7: Black Generation Y students do not have the same financial literacy scores on all of the constructs (general financial knowledge, saving, spending and debt) of financial literacy.

Ho8: There is no significant difference between black Generation Y students' financial literacy score (general financial knowledge, saving, spending and debt) in terms of gender, year of study and source of income.

Ha8: There is a significant difference between black Generation Y students' financial literacy score (general financial knowledge, saving, spending and debt) in terms of gender, year of study and source of income.

Ho9: Black Generation Y students do not perceive themselves as being skilled in personal financial management.

Ha9: Black Generation Y students do perceive themselves as being skilled in personal financial management.

Ho10: There is no significant difference between black Generation Y students' perceived personal financial management skills in terms of gender, year of study and source of income.

Ha10: There is a significant difference between black Generation Y students' perceived personal financial management skills in terms of gender, year of study and source of income.

Ho11: There is no relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills.

Ha11: There is a relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills.

1.5 RESEARCH DESIGN AND METHODOLOGY

The study comprised a literature review and an empirical study. Quantitative research, using the survey method, was applied for the empirical portion of the study. A descriptive research design with a single cross-sectional sample was followed.

1.5.1 Literature review

The empirical portion of this study was supported by reviewing South African and international literature, whereby secondary sources were used, which included relevant textbooks, the Internet, journal articles, business articles, academic articles, newspaper articles and online academic databases.

1.5.2 Empirical study

The empirical portion of this study comprises the following methodology dimensions:

1.5.2.1 Target population

The target population, relevant to this study are full-time undergraduate black Generation Y students, aged between 18 and 24, registered at South African higher education institutions (HEIs). The target population is defined as follows:

- Element: Black Generation Y full-time undergraduate students aged between 18 and 24
- Sampling unit: South African public registered HEIs
- Extent: Gauteng, South Africa
- Period: 2013

1.5.2.2 Sampling frame

The sampling frame consisted of 23 registered South African public HEIs (Higher Education in South Africa, 2013). From the sampling frame, a judgement sample of two

HEI campuses, one a traditional university and the other a university of technology, located in the Gauteng province, was selected. The reason the Gauteng province was chosen as the main sample of this study is that it comprises the largest share of the South African population. A convenience sample of full-time undergraduate black students was selected from the two HEIs.

1.5.2.3 Sample method

A non-probability, convenience sample of black Generation Y full-time undergraduate students, between the ages of 18 and 24, were selected to perform this study. The self-administered questionnaire was hand-delivered to the participating lecturers at each of the two HEIs, from whom permission was solicited. These lecturers were then requested to distribute the questionnaire to their students either during class or after class.

1.5.2.4 Sample size

A sample size of 500 full-time undergraduate black Generation Y students was selected for this study. This sample size is in the range of other studies of this nature, such as Cui *et al.* (2003) (sample size of 400), Lai and Tan (2009) (sample size of 400), Falahati, Paim *et al.* (2011) (sample size of 350), and Sam *et al.* (2012) (sample size of 500) and, as such, was considered sufficiently large. The sample size of 500 full-time undergraduate students was split equally between the two selected HEIs, thereby allowing a sample size of 250 full-time undergraduate students per HEI.

1.5.2.5 Measuring instrument and data collection method

A structured self-administered questionnaire was utilised to gather the required data for this study. The questionnaire utilised in this study included existing scales used in previously published research. The Boon *et al.* (2011) financial planning scale was adapted and used in order to measure South African black Generation Y students' attitudes towards personal financial planning,. Black Generation Y students' financial literacy was measured using the Jump$tart coalition (2008), as adapted by Symanowitz (2006), financial literacy scale. It should be noted that only 18 questions from 49 questions, as presented in this scale, were employed in this study. In order to measure South African black Generation Y students' perception of their personal financial

management skills, the Falahati, Paim *et al.* (2011) financial management skills scale was adapted and used.

The students were requested to complete a questionnaire consisting of four sections. The first section (Section A) gathered their demographic data. The second section (Section B) included the items pertaining to personal financial planning. This 30-item scale measuring the students' attitudes towards personal financial planning comprised six dimensions, namely the financial planning process (5 items), credit planning (5 items), insurance planning (5 items), investment planning (8 items), retirement planning (3 items) and estate planning (3 items). The students' attitudes were measured on a six-point Likert scale (1= strongly disagree, 6= strongly agree) based on the students' extent of agreement or disagreement to the statements that relate to personal financial planning. The third section (Section C) included the questions pertaining to financial literacy, in the context of personal financial planning. The students' financial literacy was measured by making use of 18 multiple-choice questions, whereby they were asked to choose one of the four alternatives provided. The fourth section (Section D) comprised a 10-item scale, which included items pertaining to students' perceived personal financial management skills. The students' perceptions were measured on a six-point Likert scale (1= strongly disagree, 6= strongly agree) based on their extent of agreement or disagreement to the various statements that relate to personal financial management skills.

In addition, the questionnaire was accompanied by a cover letter explaining the purpose of the study and requesting participation from the students. The questionnaire was piloted on a convenience sample of 40 students on a South African HEI campus that did not form part of the sampling frame, in order to ascertain its reliability. The results of the pilot test was subsequently coded and tabulated, and the results were considered when adopting the final questionnaire.

To conduct this study, a structured format was applied, where lecturers of the applicable classes were contacted and permission was requested to carry out the survey. The participating lecturers were informed that the questionnaire is to be completed on a voluntary basis only and that no student is to be coerced into completing the questionnaire. Thereafter, during the scheduled class times of the full-time undergraduate students, a hand-delivered self-administered questionnaire was distributed for completion, which was collected thereafter.

1.5.3 Statistical analysis

The captured data were analysed using the Statistical Package for Social Sciences (SPSS), Version 21 for Microsoft Windows. The following statistical methods were applied on the empirical data sets:

- Reliability analysis
- Validity analysis
- Descriptive analysis
- Significance tests
    - T-tests
    - Analysis of variance (ANOVA)
    - Correlation analysis

1.6 ETHICAL CONSIDERATIONS

The research study complied with the ethical standards of academic research. Permission to conduct the study was gained from all participating lecturers. The identities and interest of the students were protected. Confidentiality was guaranteed regarding all of the information provided by the students. Participation in the survey was voluntary and no individual person or institution was forced to partake in it.

1.7 CHAPTER CLASSIFICATION

Chapter 2 of this study provides a comprehensive literature review on personal financial management, including an in-depth discussion on personal financial planning, its pertaining definition, overview, life cycle, process, benefits and important personal financial planning areas. The various tools used to assess and measure personal financial performance are outlined, as well as fundamental principles of personal financial management. A literature review pertaining to financial literacy, including its definition, overview and consequences of low and high levels of financial literacy is presented in this chapter. The chapter concludes with a discussion on the Generation Y cohort consumers' behaviour patterns, as they relate to personal finance.

Chapter 3 concerns itself with the research design and methodology used in this study, including discussions on the research approach, sampling strategy, data collection method, pre-testing of the questionnaire, administration of the questionnaire and data preparation. The data analysis and statistical procedures used in the study are also discussed within this chapter.

Chapter 4 presents the reported results of the empirical study. The results of the questionnaire are analysed, interpreted, and evaluated in this chapter. In addition, the results of the statistical analysis procedures that were applied to perform the analysis on the sets of data, are reported on. The results obtained from the reliability and validity analysis, carried out on the measuring instrument, are conferred.

Chapter 5 provides a final synopsis of the entire study and presents the conclusions drawn from the study, together with the consequent recommendations. The limitations of the study are discussed, and suggestions for further research are presented.

1.8 SYNOPSIS

As the spending power amongst Black Diamonds continually increases, it has become imperative to determine black Generation Y students' attitudes towards personal financial planning, their level of financial literacy, and perceived personal financial management skills, before entering the workplace and possibly becoming the next Black Diamonds. In determining the black Generation Y's attitudes, level of financial literacy and perceptions, marketing strategies can be established to aid financial institutions and professionals in gauging effective ways to convey financial knowledge and product information to this target market, to deliver improved financial service.

This chapter comprises the problem statement, the objectives of the study, hypotheses, research design and methodology, as well as the chapter classification. The succeeding chapter, Chapter 2, consists of a literature review pertaining to personal financial management, with reference to personal financial planning. Moreover, it also provides a discussion regarding the assessment and measurement of personal financial performance, fundamental principles of personal financial management, and financial literacy. The target audience, consumer behaviour, and Generation Y are also discussed.

CHAPTER 2

PERSONAL FINANCIAL MANAGEMENT

"The future belongs to the risk takers, not the security seekers. The more you seek security, the less of it you will have and the more you pursue opportunity, the more security you will achieve."

— Brian Tracy

2.1 INTRODUCTION

In any organisation, eight distinct but interdependent functions can be identified, namely the general management function, purchasing function, operations function, marketing function, financial function, human resource function, public relations function and the administrative function (Banhegyi *et al.*, 2007:16; Swart, 2009:175). Financial management is related to the financial function of the company, encompassing the monitoring of a company's financial position and is divided into three foremost tasks, namely evaluating the company's financial position, managing the company's asset and financial structure (Lovemore & Brűmmer, 2003:7). Hence, the focus of financial management rather relates to the financial matters of a company than those of the individual. However, personal financial management is concerned with managing an individual's or family unit's personal finances through developing a strategic plan for productively managing the individual's or family unit's personal income, lifestyle expenditures and assets, including assist in achieving lifetime goals and objectives, taking into account various financial risks and future life events (Financial Planning Institute of South Africa, 2013b).

Management is a process that involves knowing what to do, how it should be done, and comparing the results with the plans (Financial Planning Institute of South Africa, 2013c; Swart, 2009:174). Robbins and DeCenco (2005:7) concur, stating that management, including personal financial management, is a process that consists of a continuous cycle of four core elements, namely planning, organising, leading and controlling. First, planning gives direction to the individual's finances, minimises risk and uncertainty, and aids to avoid crisis management, as well as involving setting measurable and attainable

goals and developing strategies to achieve these goals (Van Rensburg *et al.*, 2008:52). Secondly, the organising process commences once individuals have set financial goals by establishing strategies for achieving these goals. During this process, resources are allocated, which allows for the execution of the planned strategies (Swart, 2012:4). Thirdly, individuals should lead the management of their personal finances in a positive direction to move towards future financial freedom (Banhegyi *et al.*, 2007:168). Lastly, individuals have to control financial resources through comparing objectives with the actual performance or results, specifically focussing on serious deviations possibly resulting from unforeseen circumstances such as investment losses or a tax account in arrears (Van Rensburg *et al.*, 2008:54).

Individuals and households should plan and manage their finances in order to avoid the burden of debt. Managing finances forms an integral part of all individuals' everyday lives, from students receiving bursaries or pocket money, working individuals earning an income, including retired people receiving a monthly pension or retirement annuity payment. However, successfully managing personal finances requires an understanding of certain financial concepts, having a clear idea of the amount of assets in relation to one's debt and savings, and elemental to this is having knowledge on how to budget. The challenge is, in general, the majority of individuals have no formal training in managing their finances effectively (Botha & Musengi, 2012:263). Therefore, the focus of this chapter is to provide insights on personal financial management to all individuals.

In order to shape the focus of this study, in-depth discussions of personal financial management are necessary. The proceeding section consists of five sections. Section 2.2 provides a discussion on personal financial planning, which directs the discussion to Section 2.3, which involves the measurement and assessment of personal financial performance. This section leads the discussion to the third section, Section 2.4, which discusses the fundamental principles of personal financial management. In Section 2.5 and Section 2.6, financial literacy and the target market of this study, namely Generation Y, are discussed respectively, and form part of the focus of the study. It should be noted that, due to personal financial management skills being integrated in all aspects of financial management, various financial management skills were included in the empirical part of this study, and therefore, literature pertaining to financial management skills was encompassed throughout this chapter and not in a single section.

2.2 PERSONAL FINANCIAL PLANNING

Given that this study is concerned with personal financial management, which comprises personal financial planning, it is essential to give an overview of personal financial planning. The proceeding section provides a discussion on the definition of personal financial planning, followed by an overview of personal financial planning, the personal financial planning life cycle, process, benefits as well as a discussion of the important areas of personal financial planning. This section also lays the foundation for measuring and assessing personal financial performance to be discussed. Hence, measuring and assessing personal financial performance will follow this section.

2.2.1 Defining personal financial planning

Personal financial planning entails the structuring and organising of financial resources in such a way as to ensure life goals are met, and provide financial certainty and clarity on one's present and future financial well-being (Financial Planning Institute of South Africa, 2013a). According to Garman and Forgue (2008:60), financial planning involves a process of constructing and applying a corresponding series of financial plans to assist with the attainment of financial success. Yeske (2010:20) elaborates, stating that the process of financial planning refers to the application of strategic planning and management theories to the financial matters of individuals, families and businesses. Personal financial planning is an interdisciplinary practice that draws many theories and techniques from the fields of finance, economics, law, taxation and investment theory (Yeske, 2010:1).

Warschauer (2002:204) describes financial planning as the process that considers and individual's personality, financial status and socio-economic and legal environment, that leads to the adoption of strategy and utilisation of financial tools that are likely to assist in achieving the individual's goals. Cornette *et al.* (2009:10) define personal financial planning as the process by which individuals take into account present personal and financial information, establish future financial goals and develop a financial plan to obtain these goals.

According to Botha *et al.* (2012:5), personal financial planning is defined as goals, desires and needs that are expressed in monetary value in terms of the individual's perceptions, and are apparent in existing and future provisions, also expressed in monetary value.

Accordingly, it is possible to establish to what degree shortfalls (insufficient provision for the individual's needs) or surpluses (excessive provisions for the individual's needs) may come about at present or in the future. As stated by Rossini and Maree (2010:4), financial planning typically entails the management of financial resources that is based upon an investigation of individual needs, environment and objectives. The information obtained would generally include current and expected assets and liabilities, comprising savings, insurance, investments and expected retirement income.

From these definitions, it is evident that financial planning is a process whereby individuals are constantly identifying and meeting life objectives and goals through appropriate financial management. Moreover, the definitions accentuate the importance of financial planning, irrespective of income levels and the number of investments owned by the individual (Botha *et al*., 2012:4). Gitman and Joehnk (2008:3) opine that personal financial planning provides individuals with the knowledge to acquire, apply and control financial resources more effectively and efficiently. Therefore, for the purpose of this study, personal financial planning is defined as the formation of immediate short-, medium- and long-term goals, by means of a personal financial planning process, based on the individual's known lifestyle, the financial planning life cycle stage(s), as well as risks and needs in all the different personal financial planning areas, to ensure retirement with financial freedom (Swart, 2012:5). This definition lays the underpinning for the overview of personal financial planning to be discussed

2.2.2 Overview of personal financial planning

Most individuals incorrectly assume that personal financial planning is only for the affluent individual, when in fact this is fallacious. Personal financial planning is a necessity whether an individual has a limited or a substantial amount of wealth. As such, individuals with a significant amount of financial resources will benefit even more from personal financial planning, as it provides assistance on how to spend and invest prudently (Gitman & Joehnk, 2008:6). According to Koh and Fong (2011:2), personal financial planning is a necessity if the individual desires to improve their standard of living, minimise the possibility of financial ruin, invest optimally and accumulate adequate wealth over time.

Owing to individuals constant concern about financial well-being, an enhanced everyday life and globalised capital markets increasingly offering a diversity of financial products and investment funds, personal financial planning is increasingly becoming essential in achieving personal financial goals (Boon *et al.*, 2011:149). According to English *et al.* (2003:4), the attainment of personal financial objectives necessitates the development of a financial plan, which is a unique plan owing to each individual having different responsibilities, values, needs, wants and resources. Swart (2012:1) opines that the development of an effective financial plan requires knowledge of the various personal financial planning areas, due to having extensive desirable and undesirable financial repercussions. The areas of financial planning include, career planning, income tax planning, estate planning, investment planning, insurance planning, credit planning, retirement planning, project planning, family planning, productivity planning, emigration planning and business planning (Cooper & Worsham, 2002; Lai & Tan, 2009:100; Swart, 2012:11; Warschauer, 2002:205).

Efficient personal financial planning requires constant attempts to predict future events and it is critical that future financial needs are considered early in individuals' working lives (Swart, 2009:2). Imprudently, many individuals make personal financial decisions based on probability, such as investment decisions based on advice or informal observations of friends or family, and savings plans based on the surplus money amount at the end of the month (Murphy & Yetmar, 2010:811).

Garman and Forgue (2008:4) state that a firm comprehension of subject matters related to personal finance, provides individuals with the increased likelihood of attainment in facing the financial defies, responsibilities and opportunities that life offer. These achievements might comprise paying marginal credit costs, reduced income taxes, acquiring motor vehicles at low prices, obtaining exceptional house financing terms, purchasing suitable and reasonably priced insurance, investing in successful investments that corresponds with individual needs, planning for a satisfactory retirement and transferring an estate with reduced transfer costs.

Swart (2012:1) explains that personal financial planning has an effect on all individuals and with knowledge of basic financial issues, individuals can take responsibility for a promising financial future that enables the transference of skills to others especially their children, guaranteeing a positive financial future for the younger generation. Worryingly

though is that, according to a study done by the ANZ Banking Group in Australia and New Zealand, 37 percent of the participants (adults aged between 18 and 70 years and older) do not know the amount of money needed to fund a comfortable retirement (Louw, 2009:2). According to Swart (2012:1), less than one out of every ten individuals in South Africa is financially independent when retiring. These statistics are suggestive of the reality that most individuals do not know what personal financial planning involves or how to embark on such planning. To ensure more financial independence and a financially successful life, Garman and Forgue (2008:6) proposed financial building blocks leading to financial success. These building blocks include ensuring a foundation of recurrent income to provide for basic lifestyles and savings, forming a financial base by employing insurance protection, saving and cheque accounts, establishing long and short-term financial goals, having organised financial records, a realistic budget and an emergency savings account. Moreover, costs, such as income taxes and transportation costs should be managed, credit cards, instalment loans, savings accounts and education expenses should be handled and lastly, individuals should invest in real estate, retirement plans, mutual funds and stocks and bonds. This overview lays the foundation for the personal financial planning life cycle to be discussed.

2.2.3 Personal financial planning life cycle

As identified in the preceding sections, personal financial planning is unique for each individual owing to different risk profiles, needs, financial goals and phases in the human life cycle. Therefore, it is critical for successful personal financial planning, to understand the personal financial planning cycle, also known as the life cycle of personal financial planning.

The progression of financial goals over an individual's lifetime is referred to as the personal financial life cycle (English *et al.,* 2003:7). Cooper and Worsham (2002) identified five distinct phases in an individual's financial life cycle. These phases include one's early career, starting at the age of 25 years or younger to 35 years; career development, between the age of 35 and 50; peak accumulation, starting at the ages of 50 and 58 up to 62; pre-retirement, referring to the three to six years prior to planned retirement; and retirement, referring to the age of 62 up to 66 and older. Gitman and Joehnk (2008:2), however, identified four phases (illustrated in Table 2.1), indicating that, as individuals move through different stages of life, their needs and goals change.

An individual's demographical characteristics, such as their age, income, gender and education can influence their financial decisions (Lai & Tan, 2009:100). Botha *et al.* (2011:149) opine that, in the context of the life cycle theory, personal financial planning concerns the management of one's income, expenses and savings to ensure the achievement of financial goals. Hence, the process of personal financial planning should, instead of being a single occurrence, be continuous throughout the individual's financial life (Cooper & Worsham, 2002), as indicated in Table 2.1.

Table 2.1: The financial planning life cycle stages (Gitman & Joehnk, 2008:15)

Cycle:	**High school**	**Tertiary studies**	**Career/working**	**After retirement**
Priorities	Budget Saving Career planning	Budget Saving Career planning Investments Credit control Insurance Income tax	Budget Saving Housing Investments Credit control Insurance Estate planning Income tax Retirement planning	Budget Investments Estate planning

From Table 2.1, it is clear that personal financial priorities change as individual's transition through the financial planning cycle. Swart (2012:5) states that within the same planning cycle, individuals' priorities, preferences and planning will change in accordance with present state of affairs. Schiffman *et al.* (2010:116) declare that as individuals meet financial needs at a particular level, such as having adequate funds for cost of living, the following level, such as creating a reserve fund for unforeseen circumstances or making provision for financial security during retirement or disability, is desired. As such, the achievement of higher levels becomes a powerful driving force and so personal financial planning should be focussed at higher levels and progressive satisfaction.

Regardless of the fact that individuals move through different stages of the personal financial planning life cycle and individual needs differ, the same steps can be employed in the personal financial planning process. Hence, the personal financial planning process is discussed in the following section.

2.2.4 Personal financial planning process

Botha *et al.* (2011:152) claim that the development of the personal financial planning process is based on best practice principles, which enable the financial planner and individual to pursue a standardised process. As indicated in Section 2.2.1, this process is critical in personal financial planning and disregarding this element will result in unsuccessful financial planning and management (Warschauer, 2002:204). Gitman and Joehnk (2008:16) denote that the personal financial planning process consists of three activities, namely analysing the present situation, setting financial goals and preparing a budget for the attainment of the goals set. Swart (2012:7) explains the first activity refers to the individual's current financial position, the second activity refers to where the individual aspires to be, and the third activity refers to the methods required for reaching the desired outcome.

Boon *et al.* (2011:150) indicate that it is critical that individuals continuously re-evaluate the current impact of financial affairs on their financial position, as well as estimate the financial resources required to achieve the sought after position in the future, in order to gain capacity for the desired financial well-being and standard of living. Figure 2.1 proposes the personal financial planning process, useful in assisting individuals in determining a baseline for future financial planning, and setting goals and targets for guiding the financial plan (Crankshaw, 2006:3).

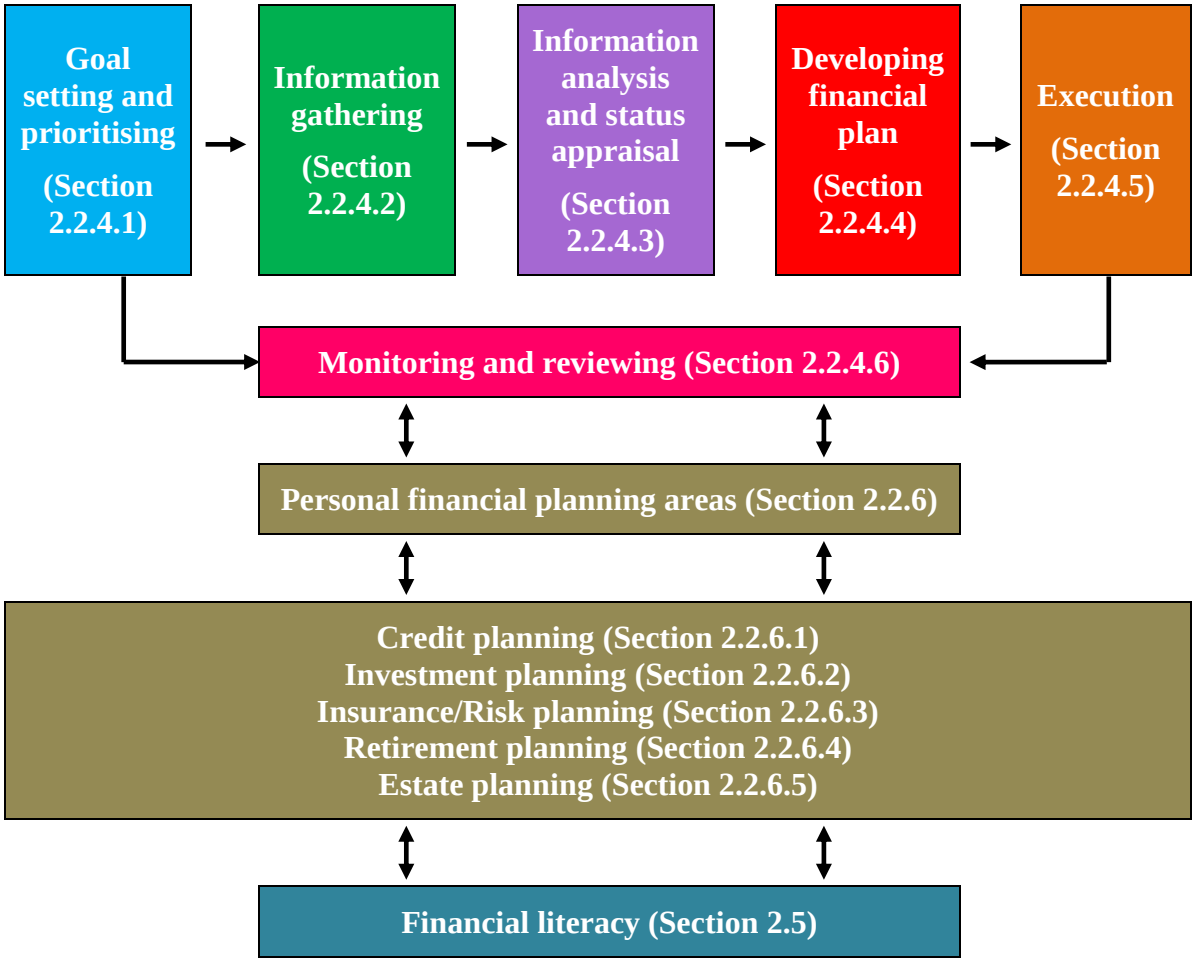


Figure 2.1: Personal financial planning process (Adapted from Boon *et al.*, 2011:150)

The personal financial process requires individuals to be equipped with cognitive capabilities, as well as perhaps more importantly, financial literacy and personal financial management skills (Boon *et al*., 2011:151). Van Nieuwenhuyzen (2009:96) and Manning (2008) stipulate that individuals require the capacity to read, analyse, manage and discuss personal financial state of affairs and issues that influence one's overall financial well-being. In addition, the ability to recognise economic problems, and understanding the consequences thereof, is required.

Various authors (Boon *et al.*, 2011:150; Botha *et al.*, 2011:158; Botha *et al.*, 2012:19; Cooper & Worsham, 2002:23; Crankshaw, 2006:3; Swart, 2012:8; Warschauer, 2002:204; Yeske, 2010:36) suggest the following six steps in the personal financial planning process.

2.2.4.1 Step 1: Goal setting and prioritising

Gitman and Joehnk (2008:8) define financial goals, as the outcomes an individual wants to achieve, such as purchasing property, saving for tertiary education or attaining financial independence and are to be achieved through financial planning and management efforts. Establishing goals is critical in creating a lucrative financial plan, which is concerning though, as many individuals make important financial decisions without having detailed financial goals (Cooper & Worsham, 2002; Swart, 2012:8). Furthermore, according to Garman and Forgue (2008:61), individuals' financial goals must be specified in monetary terms, as well be realistic, specifically in terms of purpose and time boundaries.

The goals individuals set generally depend on the individual's wants, needs, personality, attitudes and values. English *et al.* (2003:14) stipulate that the objective of goal setting is to ascertain one or more goals for the purpose of managing current expenses, saving for future expenses, credit and borrowing, insurance protection, investing, minimising taxation and providing for retirement.

Financial goals should be set out in terms of specific time horizons (short-, medium- and long-term), due to some goals being immediate, whereas others focus on the next two or three years, and some goals focus on the next ten to 20 years (English *et al.*, 2003:4). Garman and Forgue (2008:61), Gitman and Joehnk (2008:12), Koh and Fong (2011:3) and Swart (2012:8) differentiate between short-, medium- and long-term goals as:

Short-term goals

Short-term financial goals, such as paying accounts and contributing towards savings, are set each year and generally consist of a 12-month period (Gitman & Joehnk, 2008:12). Individuals must define short-term goals by taking into consideration the immediate goals, estimated income for the year, and long-term goals. Short-term goals must be formulated precisely, and are generally required in the early phase of the human life cycle (Koh & Fong, 2011:3). Usually, these goals are funded from individuals' current income and/or savings or investment plans (Swart, 2012:8). Unless the individual achieves short-term goals, the probability of achieving medium- or long-term goals is incredibly low (Gitman & Joehnk, 2008:12).

Medium-term goals

Medium-term goals, such as saving for a deposit for purchasing property, encompass the largest part of the human life cycle and usually come about during working years. In order to achieve long-term goals, the attainment of medium-term goals is a prerequisite. Adjustments in expenditure patterns, such as avoiding excessive spending, are often required for providing for the needs over the medium term given that more financial resources are often required to satisfy these needs (Swart, 2012:8).

Long-term goals

Long-term goals, such as saving for retirement, allow for the most flexibility, compared to short- and medium-term goals, during financial planning, owing to the difficulty of identifying exactly what it is the individual desires in 30 years' time (Gitman & Joehnk, 2008:12). During the last phase of the human life cycle, retirement planning is the most essential planning component, as the individual has to calculate the amount of money needed to fund a comfortable retirement, and subsequently, decide how much money to save each month to achieve this amount (Garman & Forgue, 2008:61). Owing to the challenge of predicting possible future needs and wants, long-term goals require revising and therefore change over time (Gitman & Joehnk, 2008:12).

Cooper and Worsham (2002) denote that goals have to be listed according to the degree of importance. Higher priority must be given to needs that seem more important, owing to the detrimental financial implications of being unable to meet those needs. Various factors such as a changing economic environment and political conditions, a large number of financial institutions, inflation, the variety of financial products and tools available, and unethical practices and contradictory financial advice, can influence the degree to which individuals attain financial goals and objectives (Botha *et al.*, 2011:3). Figure 2.2 illustrates the process of achieving financial goals.

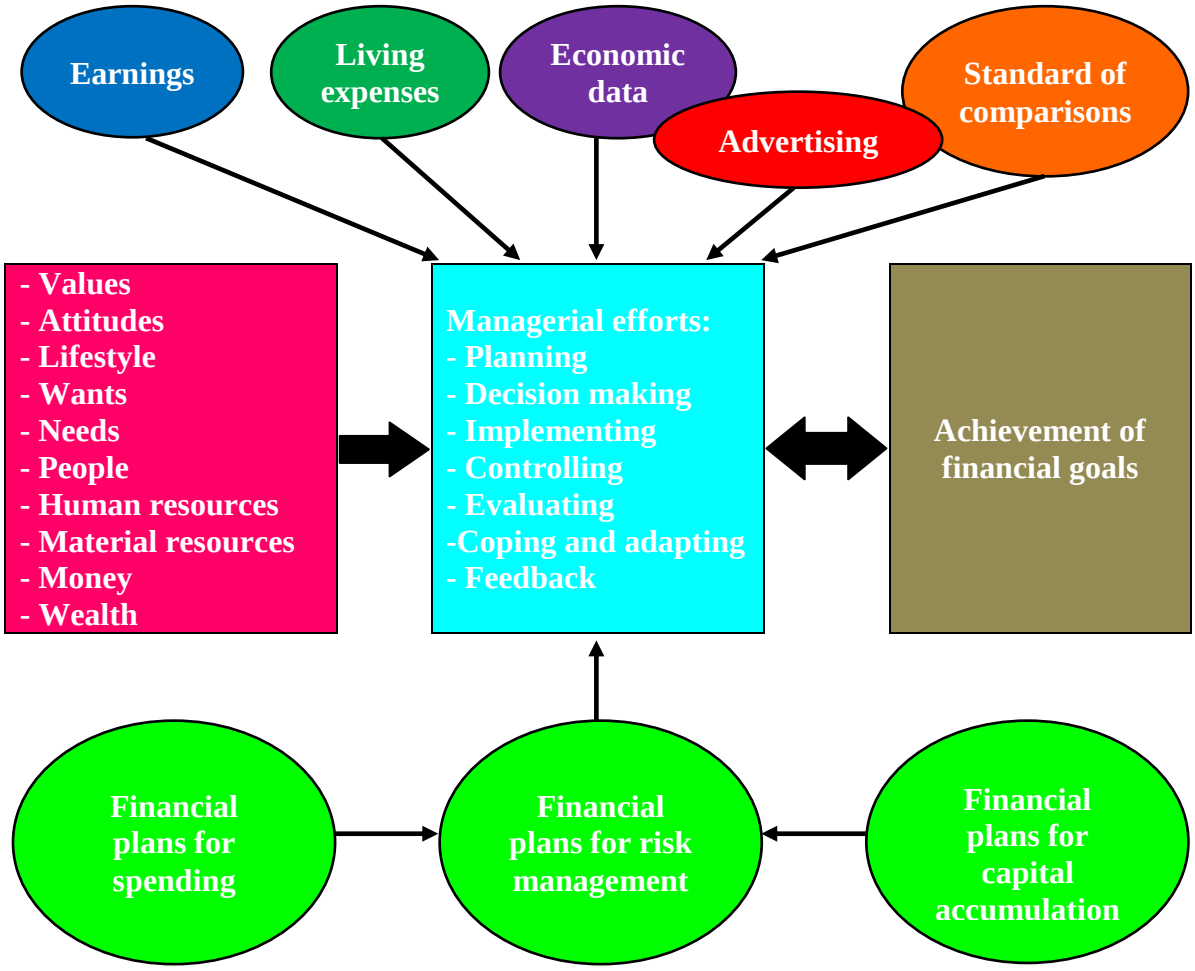


Figure 2.2: Process towards achieving financial goals (Garman & Forgue, 2008:61)

2.2.4.2 Step 2: Information gathering

Preparing an accurate, pertinent and all-inclusive financial plan without understanding the individual's circumstances, goals and objectives is unviable. Therefore, information gathering is important in personal financial planning. According to Botha *et al.* (2012:21), three types of information should be gathered. First, personal and financial goals, needs and priorities must be identified through asking relevant questions to the individual or household; particularly, individuals or households must be primed to disclose the required information to ensure that a feasible financial plan is developed. Secondly, quantitative information should be gathered comprising the collection of accurate data pertaining to the individual's present financial information, such as assets and liabilities, cash flow,

income and expenditures, budget, investment holding statements, insurance coverage, information concerning tax position, sources of possible retirement earnings and any legal agreements and documents that relate to estate planning. Lastly, the gathering of qualitative information provides an indication of the individual's values, attitude towards the various personal financial planning areas and expectations, including information pertaining to the individual's level of financial literacy.

In view of the fact that all further decisions or plans will be based on these aspects, the current financial position and views should be determined by individuals concerning the above.

2.2.4.3 Step 3: Information analysis and status appraisal

Once the required quantitative data and qualitative information have been gathered, the next step involves analysing the data and information with the purpose of gaining an understanding of the individual's financial situation (Botha, 2011:162). This will allow for the identification of the needs that have not been provided for and require attention. Swart (2012:9) points out that needs that rank low on lists of priorities may already have been satisfied. In order to assess the individual's current financial position and to determine the steps to be employed to ensure that the identified needs and goals are met, gaps in the individual's financial situation should be identified, assets and liabilities should be analysed and budgeting, debt management, current insurance coverage and the tax situation should be considered.

2.2.4.4 Step 4: Developing the financial plan

A financial plan can only be developed after analysing the gathered information and refining the financial goals set. The financial plan outlines in detail the concrete steps that an individual should take towards achieving financial goals (Cooper & Worsham, 2002). Therefore, a financial plan stipulates the specific actions required for reaching the planned goals (Koh & Fong, 2011:5). There is a distinct difference between a financial plan and a budget. A financial plan is executed based on the individual's budget. A budget will indicate whether the financial resources are available, which subsequently provides the individual with an indication of whether the actions to be taken to execute the financial plan, such as the amount of life cover (life insurance) and its premium, can be afforded (Swart, 2012:9).

An individuals' financial plan should be adapted as the individual age, due to desired goals changing as the financial life cycle of an individual progresses (Financial Planning Institute of South Africa, 2013b). Koh and Fong (2011:5) opine that the development of one comprehensive financial plan, comprising all the financial goals, is ideal but unrealistic since different goals require different plans. Table 2.2 provides the different types of financial plans and goals.

Table 2.2: Types of financial plans and goals (Koh & Fong, 2011:5)

Financial plan	Goal
Money management plan	Control expenses and employ the budgeting tool for money management
Savings plan	Meet target expenditures and emergencies; acquire target level of wealth
Investment plan	Obtain major real and financial assets
Credit plan	Manage level/cost of borrowings
Real estate plan	Decide on optimum time to acquire or sell property
Insurance plan	Protect yourself/assets/dependents
Retirement plan	Guarantee financial independence at retirement
Estate plan	Ensure organised allocation of wealth to inheritors

2.2.4.5 Step 5: Execute the financial plan

According to English *et al.* (2003:14), during this phase, the individual's efforts are focused on attaining the established financial goals. Koh and Fong (2011:7) opine that being disciplined and achieving established goals within the planned time appears to be the greatest challenge individuals experience in executing the financial plan. Swart (2012:10) warns that it is critical to note that all financial plans require adequate funds in order to be executed.

2.2.4.6 Step 6: Monitor and review the financial plan

Botha *et al.* (2012:32) indicate that individuals ascertain whether the identified goals and objectives are being achieved during this phase. Periodic revision of the financial plan is vital due to financial goals inexorably changing as individuals proceed through the financial life cycle stages (English *et al.*, 2003:14). Swart (2012:10) advises that a

financial plan should be revised every year. Despite this, sporadically, financial goals become unrealistic because of radical changes in the individual's financial circumstances (Crankshaw, 2006:3), hence requiring revising and adjusting of established goals (Koh & Fong, 2011:7). Radical changes affecting established goals often include the birth of a child, divorce, illness, inheritance, retrenchment, the death of a spouse or a partner in a business venture, or retirement (Financial Planning Institute of South Africa, 2013b).

Individuals who embark on personal financial planning with the purpose of achieving financial goals and objectives will experience a wide range of benefits, ultimately making personal financial planning meaningful (Crankshaw, 2006:3). Therefore, a discussion of the benefits of personal financial planning follows.

2.2.5 The benefits of personal financial planning

A comprehensive financial plan will provide individuals with a robust framework enabling them to make prudent financial decisions in all financial areas of their financial life. Implementing and being devoted to a financial plan provides the individual with the greatest conceivable chance of success (Financial Planning Institute of South Africa, 2013a).

Various authors (Botha *et al.*, 2012:6; Botha *et al.*, 2011:4; Swart, 2012:10; Venter, 2008:53; Rossini & Maree, 2010:8) believe that every person should be encouraged to engage in personal financial planning because of the benefits it holds. Personal financial planning is beneficial in maintaining a balance of capital and income needs and maintaining the value and purchasing power of capital. Short- and long-term insurance provide protection against financial risk, tax is legally minimised, a satisfactory level of investment return relative to the risk taken is attained (Botha *et al.*, 2012:6; Venter, 2008:53), and the individual is financially independent at retirement (Swart, 2012:10). Furthermore, personal financial planning provides financial security for the family (Rossini & Maree, 2010:8), a suitable structure of liabilities and debt minimisation is achieved, the timing of money outflow and inflow is balanced, and the individual's present lifestyle is balanced with his/her future lifestyle. A periodic review of the financial plan is established, prosperity over the long-term is maximised (Botha *et al.*, 2011:4), as well as an increased awareness and reduced apprehension concerning

financial matters, and financial affairs are organised and controlled (Rossini & Maree, 2010:8).

When planning personal finances, the individual should consider the suitability of his or her needs of a range of banking products such as cheque and savings accounts, credit cards and consumer loans; insurance such as life insurance, health insurance, disability insurance; products or participation and monitoring of individual- or employer-sponsored retirement plans, social security benefits and income tax management. As such, management and planning should be directed at the various personal financial planning areas (Swart, 2012:11). Therefore, the personal financial planning areas are discussed in the following section.

2.2.6 Important areas of personal financial planning

There are various personal financial planning areas, as listed in Section 2.2.2. However, for the purpose of this study, focus is directed at discussing only credit, insurance/risk, investment, retirement, and estate planning. Therefore, this section consists of five sub-sections, briefly discussing the financial planning areas respectively. It should also be noted that the emphasis is on management and planning, and therefore no in-depth discussion is given on each financial planning area.

2.2.6.1 Credit planning

Credit is defined as the power of purchasing or borrowing on trust (Botha *et al.*, 2012:166). According to Swart (2012:67), credit planning involves prudently and purposefully incurring debt for the purpose of satisfying individual needs and achieving financial goals, while managing cash inflows and outflows. Credit is an integral part of individuals' lives as it is used to purchase a variety of products and services. However, Swart (2012:60) indicates that individuals desire more than the basic needs, often resulting in high credit usage that is difficult to manage. Therefore, a personal financial budget should make provision for repayment of credit. Gitman and Joehnk (2008:174) add that individuals should plan before debt is incurred and credit facilities are used. Furthermore, Swart (2009:38) mentions that debt knowledge and the individual's own debt situation are important when doing credit planning and to create a prosperous financial situation and future. Various studies on credit card debt of students (Austin & Phillips, 2001; Robb & Sharpe, 2009; Warwick & Mansfield, 2000) discovered that

students have high credit card debt, possibly due to a lack of credit planning or inadequate knowledge about what it entails because of low financial literacy levels. Botha *et al.* (2012:168) posit credit management strategies, such as settling loans, overdrafts, store and credit cards with the highest interest rate first, and subsequently closing the account and selling non-essential assets or liquidating investments to settle debts, by utilising the returns for successful credit management planning. Hence, the issue, really, is one of moderation and affordability and the ability to plan and manage debt to avoid long-term consequences.

2.2.6.2 Insurance/risk planning

Risk management is the process of recognising, investigating and prioritising risks followed by a process of employing strategies to mitigate, monitor and control the likelihood and/or consequence of unfortunate occurrences (Botha *et al.*, 2011:189). Risks are managed by employing several strategies, such as risk avoidance (action is taken to avoid risky financial circumstances), risk reduction (employing methods that will have the impact of alleviating the risks individuals or their assets is exposed to) and risk transference (purchasing short- and long-term insurance are recognised methods of transferring risks) (Botha *et al.*, 2012:189). Obtaining adequate insurance coverage, as part of risk management, is vital and requires careful planning. Gitman and Joehnk (2008:15) opine that purchasing insurance is usually something that individuals are familiarised with during the early stages in the financial life cycle. Moreover, insurance is a tool that mitigates financial risks and provides protection for both income (disability, health and life insurance) and assets (liability and property insurance). Swart (2009:113) states that financial skills in this regard are essential in order to understand the financial risks the individual is exposed to and what measures should be taken to protect the possibility of income or asset loss. Therefore, individuals must engage in insurance/risk planning to determine the costs of these financial and insurance products in the personal financial budget.

2.2.6.3 Investment planning

Botha *et al.* (2012:523) describe an investment as the present commitment of money for a specific time period to derive future benefits that will reward the individual for the time the funds are committed, the expected inflation rate and the uncertainty of future

payments. According to Swart (2012:228), investment management comprises the utilisation of funds with the intention of earning an income from these funds. When planning to invest, Swart (2009:82) suggests that individuals are familiar with their short-, medium- and long-term financial goals, financial risks (such as death or disease) and needs (such as a life policy or medical scheme/insurance), personal financial budget, as well as being able to evaluate and compare different investments and knowledgeable on the different types of investment options. The importance of investment planning increases as an individuals' income increases. Swart (2012:228) emphasises that investment planning is one of the principal areas of personal financial planning owing that it is a fundamental part of retirement planning, a direct inducement to protection planning and important for the achievement of the individual's short-, medium- and long-term goals. Therefore, Mazzucato *et al.* (2010:3) indicate that strategic investment requires proper investment planning, financial knowledge and a detailed understanding about the various investment options available, the significance of the context in which investment choices are made, and the consequences of those choices. Gitman and Joehnk (2008:15) agree with the above-mentioned statement and add that investing excess income to accumulate wealth is a good investment decision, as it will fund future major expenditures such as tertiary education and retirement. Hence, financial freedom after and during retirement, and with a view to the individual's estate, is fundamentally determined by proficient investment planning.

2.2.6.4 Retirement planning

Retirement planning is more complex than merely contributing to a pension, provident or retirement annuity fund. Retirement planning requires knowledge of tax law, compound interest and time value of money calculations and investment strategy (Botha *et al.*, 2012:937). According to Van Gijsen (2002:3), retirement planning is about saving an amount of money in order to provide an income after working years to satisfy individual needs. Furthermore, retirement planning is essential for that time when individuals are extremely vulnerable to the deficiency of a sizeable income. Swart (2009:124) explains that individuals should start planning for retirement when a first salary payment is received. Van Gijsen (2002:5) adds that the best possible time to start planning for retirement is when an individual is at the age of 20, due to a greater interest that could be earned over the longer period. In other words, the sooner the individual starts planning for

retirement, the greater the amount will be to fund a comfortable retirement. However, Gitman and Joehnk (2008:17) indicate that most individuals only start thinking about retirement during their forties or fifties. It therefore seems that individuals should invest as much as possible, as soon as possible and for as long as possible, by analysing the monthly budget to determine the amount that can be saved or invested (Biehler, 2008:306). Swart (2012:426) proposes three steps when planning for retirement. First, establish retirement goals, such as maintaining an equal standard of living as before retirement. Secondly, establish an amount of money required to attain the set goals. This amount is established by assessing the expenses and income during retirement. Lastly, prepare an investment portfolio within the constraints of the personal financial budget. Gitman and Joehnk (2008:17) state that the accumulation of assets that are enjoyed during retirement is only a single component of the long-term personal financial planning process; therefore, the manner in which wealth will be passed on most effectually to inheritors, an activity known as estate planning, must also be considered.

2.2.6.5 Estate planning

Armling and Droms (1986:542) describe estate planning as all the activities leading to the accumulation and management of assets or possessions. Moreover, an estate is accumulated (investment planning), preserved (insurance planning) and then transferred. This is an indication that the planning areas are interconnected and that financial planning is an integrated process. Botha *et al.* (2012:847) define estate planning as the organisation, management and securement and disposition of an individual's estate so that the individual, his/her family, and other heirs may benefit and continue to benefit to the maximum from the individual's estate and assets during the individual's lifetime and after death, irrespective of when death may occur. According to Swart (2012:188), estate planning also refers to situations in which the estate owner is released from his/her responsibility to implement the estate plan because of death. Comprehensive estate planning requires timely planning (during the estate owner's life), testamentary planning (in the individual's will) and other planning (such as insurance planning). Estate planning is a continuous process and consists of two phases, as given by Botha *et al.* (2011:486). The first phase of the estate planning process concerns planning during the individual's life and includes preserving the value of an estate at its present value to attain estate duty and capital gains tax savings, while at the same time ascertaining that minimum liquidity

difficulties arise. After the death of the individual, the second phase of the estate planning process commences, and involves the implementation of the provisions of the will of the individual. Swart (2012:189) recommends professional assistance from accountants and lawyers when doing estate planning, owing to the technical knowledge required in various specialised fields such as investment, law, insurance and income tax.

The section above has been used to provide a discussion on personal financial planning concerning the pertaining definition, an overview on the field of personal financial planning, the life cycle of personal financial planning, the personal financial planning process, the benefits associated with personal financial planning and the different personal financial planning areas. In addition, this section has led the way for a discussion on the measurement and assessment of personal financial performance.

2.3 MEASURING AND ASSESSING PERSONAL FINANCIAL PERFORMANCE

As stated by Swart (2012:14), individuals have to measure financial performance to assess whether, in fact, the stated goals, which personal financial planning is based on, are achieved (Section 2.2). Principal measuring and assessment tools used to evaluate financial performance include annual financial statements, such as the statement of comprehensive income (Gitman & Joehnk, 2008:37), the statement of financial position (Koh & Fong, 2011:11), the cash flow statement as well as personal financial budgets (English *et al.,* 2003:27). Garman and Forgue (2008:64) explain that annual financial statements are compiled using personal financial data with the purpose of communicating information on money matters.

Therefore, this section is aimed at discussing the tools to be employed in personal financial planning to ascertain whether the individual's financial performance is satisfactory. In addition, brief discussions on basic financial concepts, which are essential to comprehend when employing these measuring and assessment tools, are included. Consequently, the first sub-section, Section 2.3.1 discusses annual financial statements. In the second sub-section, Section 2.3.2, the personal financial budget is discussed. This section lays the underpinning for the fundamental principles of personal financial management to be discussed in the succeeding section.

2.3.1 Annual financial statements

Correia *et al.* (2011:5-3) and Biehler (2008:486) advise that individuals produce annual financial statements as it will fairly present the financial state of affairs of the individual for the year, and Botha *et al.* (2012:1012) add that it will allow for proper financial planning. For the purpose of this study, the statement of financial position (balance sheet) and the statement of comprehensive income (income statement) will be discussed.

2.3.1.1 Financial position statement

The statement of financial position provides the individual with an indication of the financial circumstances at a particular point in time (Biehler, 2008:498; Koh & Fong, 2011:11; Lovemore and Brűmmer, 2003:42; Swart, 2012:14). Garman and Forgue (2008:64) provides a uncomplicated definition of the individual's statement of financial position by stating that it presents an up-to-date status report and contains information on what the individual possess, what the individual owes and what the net consequence would be if the individual paid off all debts. Therefore, as indicated by various authors (Botha *et al.,* 2011:573; Botha *et al.,* 2012:1016; Cornett *et al.,* 2009:30), the statement of financial position reports the individual's assets, liabilities and equity at a given point in time.

Assets denote everything an individual possesses (Swart, 2012:14) and is defined by Vorster *et al.* (2009:12) as a resource that is under the control of the individual; that will result in future economic benefits flowing to the individual (Human & Lucouw, 2009:17), and that originates as a result of past events. Garman and Forgue (2008:66) classify assets into two groups, namely fundamental and investment assets, and describe fundamental assets, such as cash on hand, cash in current accounts, deposits, a house and motor vehicle, as those assets an individual possesses because of the function these assets carry out for the individual. Investment assets, including securities such as shares, fixed interest-bearing securities and cash value of life and endowment insurance, conversely, are assets attained for the purpose of earning returns and do not perform a particular function for the individual. According to Lovemore and Brűmmer (2003:43), assets are partitioned further into fixed and current assets. Fixed assets consist of land and buildings, machinery and plant, vehicles, equipment and long-term investments (Biehler, 2008:500; Botha *et al.*, 2011:573; Swart, 2012:14). Current assets comprise cash on hand,

fixed deposits, accounts receivable, marketable securities and inventory (Cornett *et al.*, 2009:30).

Human and Lucouw (2009:17) define liabilities as lawfully enforceable commitments that an individual has to its creditors, long- and short-term, resulting in the outflow of future economic benefits (Botha *et al.*, 2012:1019; Vorster *et al.*, 2009:14). Lovemore and Brűmmer (2003:43) state that liabilities are divided into current liabilities and long-term liabilities. Biehler (2008:500) makes a distinction between current and long-term liabilities by highlighting that current liabilities are debts that the individual has to pay within a period of one year, whereas long-term liabilities include debts that do not come due within one year. Garman and Forgue (2008:66) list personal loans owed to other people, credit card balances, taxes unpaid and professional services unpaid (doctors, lawyers), which all form part of accounts payable (Botha *et al.*, 2011:573) as examples of current liabilities. Long-term liabilities, according to Cornett *et al.* (2009:30), include long-term loans and bonds that mature within more than one year.

Once the individual has determined what is owned and what is owed, net worth can be calculated, that is, the total amount of actual wealth or equity that an individual has in terms of owned assets (Gitman & Joehnk, 2008:35). The financial position, or net worth, is calculated by deducting the value of total liabilities from the carrying value of the total assets (Garman & Forgue, 2008:66; Human & Lucouw, 2009:17; Vorster, 2009:15).

2.3.1.2 Comprehensive income statement

Correia *et al.* (2011:5-4) explain that the statement of comprehensive income will provide the individual with a summary of the individual's income and expenses over a given financial year. Botha *et al.* (2011:576) add that this statement can be used to determine whether the individual has made a profit or a loss, which is described by Human and Lucouw (2009:17) as the financial result of the individual's financial activities over a specific period; hence, the individual's performance can be measured and assessed by using this statement (Biehler, 2008:487; Botha *et al.*, 2012:1027; Cornett *et al.*, 2009:34). The statement of comprehensive income is divided into three sections, namely income, expenses and contribution towards savings (Gitman & Joehnk, 2008:37; Koh & Fong, 2011:14).

Vorster et al. (2009:16) define income as increases in economic benefits over a particular time period, which assumes the form of money inflows, improvements of assets or decreases of liabilities and it results in an increase in equity. Swart (2012:16) lists salaries, bonuses, commission received, return on investments and capital profits in assets sold as typical examples of income.

Expense, on the other hand, is defined as decreases in economic benefits over a specific time period, and is in the form of money outflows or depletion of assets or increases of liabilities, resulting in a decrease in equity (Vorster *et al.*, 2009:16). Human and Lucouw (2009:18) argue that an expense is an expenditure that has been consumed. Typical expenses, as stated by Botha *et al.* (2011:577), and Koh and Fong (2011:15), include water and electricity, rent, insurance, rates and taxes, food, clothing, medical expenses and entertainment.

The contribution towards savings is the difference between total expenditure and total income (Gitman & Joehnk, 2008:37; Koh & Fong, 2011:16). If total income surpasses total expenditure, a net profit is reflected, which contributes to total savings, and ultimately, the individual's wealth. A net loss is reflected where total expenditure surpasses total income, resulting in a decrease in savings and consequently wealth reduction (Swart, 2012:16).

Therefore, from the above discussion, it is evident that it is critical for individuals to prepare annual financial statements as it will allow for the assessment of the individual's current financial standing, the present financial position can be compared with sought after goals and changes in the financial position can be detected (Koh & Fong, 2011:11). Furthermore, investment opportunities and needs can be identified (Botha *et al.*, 2011:572) and it will be useful when making credit decisions (Botha *et al.*, 2012:1012). Aside from preparing annual financial statements, individuals should also prepare a personal financial budget as a means of measuring and assessing personal financial performance.

2.3.2 Personal financial budget

A personal financial budget can be viewed as a roadmap for the individual's finances due to it providing the individual with a better understanding of essential and unessential costs (Anon., 2009b). According to Wagoner (2012:10), personal financial budgeting is critical

especially in the current volatile economic environment in which individuals have to manage financial resources carefully. Swart (2009:17) distinguishes between a budget and budgeting by stating that a budget is a plan in financial or money terms, whereas budgeting consists of a process or steps to be employed in drawing up a budget.

Therefore, a budget is a mechanism used to exercise financial control with the purpose of attaining planned goals (English *et al.,* 2003:27; Swart, 2012:22). Koh and Fong (2011:17) concur, stating that the personal financial budget is a comprehensive short-term financial projection of the individual's income and expenditures, and is used to control and monitor expenditures and purchases. Moreover, the personal financial budget should integrate the individual's coveted level of savings and investments as it is outlined in the financial plans. According to Botha *et al.* (2012:1035), a budget is two-fold in nature, consisting of income to be earned and the expenditure likely to be incurred and the cash received and paid resulting from the identified income and expenditure in the first-fold mentioned.

Belknap and Marty (2007:13) opine that a monthly budget is a crucial tool necessary in instituting a financial routine and realising financial goals, thus creating self-awareness by providing answers to central questions that the individual should ask concerning financial habits, such as determining the amount of income currently spent, possible changes that can be made, the amount being saved and how savings can be increased. Therefore, the personal financial budget has a particular purpose.

2.3.2.1 Purpose of a personal financial budget

Swart (2012:22) opines that personal financial planning is dependent on a sound financial budget and therefore the most crucial step in the process of financial planning. According to Belknap and Marty (2007:14) and Willmott (2012:2), budgeting is the first step towards financial success and well-being, however, financial success is dependent on the individual's positive attitude. Therefore, the possibility that the individual will fail virtually is guaranteed when approaching a monthly budget as unattainable and as an external limitation. Conversely, an individual is more likely to succeed when budgeting is viewed as a personal choice and a path towards meeting a personal goal.

Swart (2009:17) highlights that the purpose of the personal financial budget is to assist the individual in establishing financial goals, to monitor expenses and to understand the

reasons as to why there is a lack of money and what the next step should be. Swart (2012:22) elaborates by stating that a personal budget will force an individual to evaluate the present and future financial state of affairs resulting in a more vigilant and sensible approach to spending money. Botha *et al.* (2012:1035) and Wagoner (2012:10) add that a personal budget will ensure financial discipline, will allow for financial projections and forecasts and will enable the individual to measure and assess actual performance against the goals that were formulated. Anon. (2009b) believes that a budget should be prepared to ensure that individuals live within their means, unnecessary debt is avoided, saving becomes a habit, and most importantly, they make better-informed financial decisions. Drawing up a personal financial budget can be a daunting task and therefore certain principles should be understood and followed.

2.3.2.2 Principles involved in drawing up a personal financial budget

The principles involved in preparing a personal financial budget serve as guidelines in compiling the budget. These principles include compiling a realistic budget, therefore avoiding estimating unrealistically high or low income and expenditure. Establishing good communication between all individuals involved is critical for obtaining all the necessary inputs and as such, preparing the budget based on actual accounting records, reflecting past actions as shown in bank statements, financial records and invoices, and subsequently highlighting changes and the possible impact they are likely to have on the future. Moreover, the individual should keep financial documents as proof of all financial activities to compare budgeted amounts with actual amounts. Furthermore, the budget needs to be revised regularly and the individual needs to ensure that it remains conversant, detects cash flow, and highlights accessible cash for investment, retirement planning and growth opportunities (Botha *et al.,* 2011:590; Botha *et al.*, 2012:1036; Swart, 2009:18-19; Swart, 2012:22-25). Once the principles listed above are understood, individuals can start drawing up a budget by following certain steps.

2.3.2.3 Steps involved in drawing up a personal financial budget

As noted in Section 2.3.2, budgeting incorporates a number of steps. It is unfeasible to compile a budget without following these steps. Furthermore, successful personal financial planning depends on a detailed personal budget because virtually all financial decisions are made based on what is reflected by the budget. Therefore, in order to

develop a proper personal financial budget, several steps should be employed. The first step should analyse the monthly income and expenses, and add all the income and expenses together. The second step should equate income and expenditure to conclude whether the result is positive or negative, in other words, whether there is a deficit or surplus. During the third step, the individual should analyse the deficit or surplus and decide on a plan of action. The fourth step involves the implementation of the plan of action by utilising the surplus for savings and investments, and reducing or eradicating the deficit by reducing expenses or by developing a debt repayment plan. Lastly, review the budget regularly and manage the deficit and surplus to ensure that future deficits or vast surpluses are prevented (Botha *et al.,* 2011:158; Botha *et al.,* 2012:162; English *et al.,* 2003:27-30; Koh & Fong, 2011:17-19). By developing a personal financial budget, the individual is likely to enjoy a wide range of benefits. Therefore, individuals should be encouraged to engage in the process of developing a budget.

2.3.2.4 Benefits of a personal financial budget

Although a personal financial budget may not always provide an immediate solution to an individuals' financial problems, it provides a plan that condenses debts over time and establishes where the individual is overspending and how this can be rectified (Botha *et al.,* 2012:160). Other benefits include assisting with appropriate financial planning, with controlling financial situations and with recognising priorities and ensuring that these priorities are met according to the level of importance. A budget recognises difficulties at an early stage as well as obtainable financial resources (Botha *et al.,* 2011:155; Swart, 2012:26). A personal budget also allows the individual to plan expenditure, savings and investments in advance (Swart, 2009:25). Ultimately, a personal financial budget aids in creating a positive financial future and empowers the individual with an important financial life skill.

The section above has provided an overview on the subject matter of measuring and assessing personal financial performance, concerning annual financial statements and the personal financial budget. The section to follow briefly discusses the fundamental principles of personal financial management, including the risk-return principle, the cost-benefit principle and time value of money principle. The time value of money principle is discussed in more depth, as it is possibly the single most significant concept in personal financial management (Garman & Forgue, 2008:14).

2.4 FUNDAMENTAL PRINCIPLES OF PERSONAL FINANCIAL MANAGEMENT

Personal financial management principles such as higher risk investments yielding higher returns, actual costs of financial decisions being weighed against actual benefits, and that the value of money changes overtime, are important to understand in order to manage personal finances successfully. Therefore, personal financial management is based on three principles, namely the risk-return principle, the cost-benefit principle and the time value of money principle, and is discussed in the following sub-sections. This section lays the foundation for financial literacy, a focus area of this study, to be discussed.

2.4.1 Risk-return principle

According to Marx *et al.* (2010:15), the most essential consideration in investment planning is the association between expected risk and the subsequent expected level of return. Certain investments, as indicated by Mazzucato *et al.* (2010:7), have high levels of risk, such as derivatives, whereas other investments have low levels of risk, such as savings accounts. However, investments with higher levels of risk can be rewarding in terms of a higher potential return, whereas lower risk investments have a low potential return. Marx *et al.* (2010:15) argue that these risk level differences between the investment instruments are owing to different sources of risk faced by the individual. A savings account has low liquidity and capital risk, whereas derivatives, conversely, have high risks liquidity and capital risks involved. Correia *et al.* (2011:1-23) advise that individuals should only invest in savings that yield a return that is consistent with its level of risk. In order to determine the relationship between risk and return, a common relative measure called the coefficient of variation is employed. The lower the coefficient of variation value, the better the risk-return relationship (Cornett *et al.*, 2009:303).

2.4.2 Cost-benefit principle

Effective personal financial management and overcoming the challenge of efficiently spending a limited budget, requires individuals to compare the costs and the benefits of a specific financial undertaking with another. Therefore, financial decisions, such as investment decisions, are evaluated and compared based on costs and the benefits provided over time (Black *et al.*, 2008:103). If a particular investment decision is expected to yield a positive net benefit over another investment decision, then that

investment decision is regarded as feasible and potentially acceptable (Lovemore & Brűmmer, 2003:137). Two techniques, namely the net present value and the internal rate of return, are used to evaluate whether the capital employed for undertaking a particular financial decision, especially investments, are feasible (Marx *et al.*, 2010:57). According to Correia *et al.* (2011:8-5), the net present value technique considers the time value of money and comprises estimating an investment's future cash flows, discounting these cash flows at a required rate of return and subtracting the cost of the investment from the present value. The investment will be accepted or rejected based on the investment's wealth generation. The internal rate of return, as stated by Lovemore and Brűmmer (2003:148), is the discount rate that equates total present value and the cost of the investment. If the internal rate of return is greater than the cost of the capital, then the investment should be accepted. If the internal rate of return is less than the cost of the capital, then the investment should be rejected.

2.4.3 Time value of money principle

Garman and Forgue (2008:14) define time value of money as a method by which an individual can compare cash flows through time, either as what a future cash flow is worth currently (present value) or what an investment made today will be worth in the future (future value). Marx *et al.* (2010:45) describe this concept as a matter of interest, which may be earned if money is obtainable today and invested, or the opportunity cost if an amount will only be received at some future date rather than immediately.

The concept, time value of money, has major consequences for personal financial planning and gives personal financial planning a completely new meaning owing to the fact that R1 will be worth more in the present time than it would be in a year to follow (Cornett *et al.*, 2009:112; Correia *et al.*, 2011:2-4; Koh & Fong, 2011:20; Marx *et al.*, 2010:45). Botha *et al.* (2012:187) opine that the time value of money encompasses all issues in personal financial planning, from share and bond valuation to retirement planning. As indicated by Swart (2012:32), individuals should understand that this concept affects all personal financial calculations, principally the future return on investments, and relates to everyone, well-heeled or poor, employee or employer. Consequently, individuals should have a thorough comprehension of the time value of money to ensure successful financial planning.

The time value of money involves two components, namely future value and present value. Understanding these two components provides insight into what the value of an investment or series of investments will be after a specific period of time (referring to the future value), and the amount of money that has to be saved today to ensure future value (referring to a present value) (Garman & Forgue, 2008:14). Therefore, the two factors that play a vital part in determining the time value of money is time and interest (Botha *et al.,* 2011:175).

2.4.3.1 Future value

Correia *et al.* (2011:2-4) define future value as the value that an investment or succession of investments will grow over a specified time period at a stated interest rate. The amount on which interest is paid is referred to as the principal (Marx *et al*., 2010:46). Compounding also plays an essential role in the future value of an investment.

Garman and Forgue (2008:14) and Botha *et al.* (2011:175) define compounding as a process of earning interest on both the initial amount and on the earlier interest payments. In other words, reinvesting refers to compounding. According to Anon (2009b), compounding allows a principal amount to grow at a faster rate as in the case with simple interest, since simple interest is calculated as a percentage of only the principal amount. There are two types of compounding, namely annual compounding and intra-year compounding. Annual compounding is described as reinvesting the principal plus interest for a number of years (Correia *et al.,* 2011; Marx *et al.,* 2010:47). Marx *et al.* (2010:48) explain intra-year compounding of interest as interest compounded more often than once a year. Furthermore, intra-year compounding changes the frequency with which the interest is calculated, necessitating alterations to the number of periods and the interest payable. The future value of an annuity should be understood.

Garman and Forgue (2008:17) and Biehler (2008:141) describe an annuity as a stream of equal deposited or received amounts of money for each of a specified number of periods. Marx *et al.* (2010:49) reiterates this definition by stating that an annuity is any collection of equal payments made at regular time intervals. Swart (2012:35) defines an annuity as an equal yearly amount of money. Biehler (2008:141) furthermore highlights monthly payments on a car loan, student loan, mortgage and monthly salary received (if the same amount is received every month) as examples of annuities. The yearly equal amounts

invested for the specified time period and interest rate will result in an amount more than the principal.

2.4.3.2 Present value

Garman and Forgue (2008:17) define present value as the current value of an investment (or series of investments) that will be received in the future, also recognised as discounted value. Cornett *et al.* (2009:119) reiterate this definition as the process of figuring out how much an amount that an individual expects to receive in the future is worth at present. Marx *et al.* (2010:51) indicate that the concept of present value, similar to the concept of future value, is grounded on the belief that the value of money is affected by the timing of its receipts. According to Lovemore and Brűmmer (2003:134), the significance of present value lies in its capacity to discount the value of a single future sum of money or a future accumulated sum of money to an equal present value, consequently empowering the individual to determine whether the investment is expected to be valuable under current conditions. Cornett *et al.* (2009:119) and Marx *et al.* (2010:51) highlight that the process of computing present values, or discounting cash flows, is essentially the reverse of compounding. The present value of a mixed cash stream and an annuity should also be understood.

Marx *et al.* (2010:52) stress that the mixed annual cash stream reflects no specific pattern. According to Swart (2012:35), the present value of a mixed annual cash stream is calculated for different amounts that are subsequently summated to obtain a single present value. Biehler (2008:142) explains that a total amount of money paid at the beginning of an annuity, to which the annuity's payments are accepted as equal, is referred to as the annuity's present value.

The section above has provided an overview on the subject matter of the fundamental principles of personal financial management, including the risk-return principle and the cost-benefit principle. The time value of money principle, with specific reference to the time value of money concept, future value and present value, is also discussed. As indicated in the main heading of this study, a comprehensive discussion on financial literacy will follow.

2.5 FINANCIAL LITERACY

In accordance with the main topic of this dissertation, a discussion on financial literacy is given and comprises of three sub-sections. The first sub-section, Section 2.5.1, provides an overview of financial literacy. In the second sub-section, Section 2.5.2, definitions pertaining to financial literacy are given. This is followed by a discussion on the consequences of low and high levels of financial literacy (Section 2.5.3).

2.5.1 Defining financial literacy

Although several research studies (Chen & Volpe, 1998; Cude *et al.*, 2006; Mandell & Klein, 2009) have been conducted pertaining to financial literacy (Louw, 2009:1), defining financial literacy in the broad sense is challenging. Kempson *et al.* (2006:46) ascribe this to the fact that financial literacy, in many circumstances, is subject to individual situations, background and past financial practices.

Shuttleworth (2009:5) points out that meaning of financial literacy can easily get misunderstood when the two words are combined, due to the term financial also denoting commercial, economic, business, monetary and fiscal, all of which have dissimilar connotations. Moreover, the word literacy essentially refers to the ability to read and write, learning, education and training. The two words combined can refer, amongst others, to the process of gaining financial knowledge and understanding, and subsequently making use of financial information for informed and effective decision-making.

Cude *et al.* (2006:103) define financial literacy as individuals' capacity to read, study, manage and communicate about the personal financial situations that affect financial welfare. Individuals are capacitated to discuss issues concerning personal finance without anxiety, are able to engage in future financial planning and can handle life events influencing routine financial decisions, with little or no difficulty at all. Various authors (Johnson & Sherraden, 2007:122; Jorgensen & Salva, 2010:467; Kempson *et al.*, 2006:44) support this definition. Symanowitz (2006:1) defines financial literacy as the individual's ability to take control of personal financial circumstances that inevitably impact material well-being, future financial planning and to react knowledgeably to financial events that influence everyday financial decisions. Garman and Forgue (2008:4) define financial literacy as individuals' knowledge of facts, concepts, principles and

technological tools, essentially equipping individuals with a comprehensive understanding of all the personal financial planning areas, ultimately offering a better chance of success in facing the financial challenges, responsibilities and opportunities of life.

According to Shuttleworth (2009:9), generally financial literacy is defined as individuals' capacity to make educated financial decisions, manage financial resources efficiently and to take proper financial measures to ensure financial well-being and increased financial wealth. Hence, Chinen and Endo (2012:778) indicate that financial literacy likely encompasses a thorough understanding of the necessity to increase savings, decrease spending and lessen the debt burden. Shuttleworth (2009:92) furthermore states that financial literacy relates to different individuals, including pensioners, managers, shareholders, entrepreneurs, consumers and students, who should all be proficient in making informed financial decisions. According to Louw (2009:1), it is inevitable that all individuals, at some stage of the financial life cycle, will be facing the task of making financial decisions that could affect future well-being.

It is evident that various definitions pertaining to financial literacy exist, yet consistencies are noticeable. However, for the purpose of this study, a financially literate individual is an individual that portrays a favourable attitude towards personal finances and learning, understands the importance of taking control of their financial resources, possesses the ability to distinguish good financial decisions from bad ones and finally, implementing it through employing personal financial management skills (Louw *et al.*, 2013:440). The following section provides an overview of financial literacy with the purpose of gaining increased understanding of this concept.

2.5.2 Overview of financial literacy

Falahati and Paim (2011b:9600) accentuate the importance of financial literacy for successful financial decision-making; however, successful personal financial management is not only dependent on this key component but also the individual's financial attitudes (refer to Section 2.6.1). Various researchers (Cude *et al.*, 2006:102; Louw *et al.*, 2013:439; Shuttleworth, 2009:92; Van Nieuwenhuyzen, 2009:62,) indicate that financial literacy is critical due to a lack of proper personal financial management and therefore captured the attention of a variety of role players in the economy, including major

financial institutions, educational institutions, community interest groups, government agencies and more importantly, the consumer. According to Symanowitz (2006:1), the interest from these role players arises from the fact that many countries are characterised by low savings rates and high levels of debt and spending, inferring that individuals have low financial literacy levels. Braunstein and Welch (2002:445) and Mahdzan and Victorian (2013:276) concur with the statement and add that the interest may also arise from a concern that a lack of financial literacy, also known as financial capability, may have a negative impact on financial decision-making, which consequently has a negative impact on financial well-being, ultimately resulting in severe financial difficulties.

Kempson *et al.* (2006:43) explain that financial literacy is a concept that is somewhat unfamiliar, making it a challenging task to establish accord about what it involves. Nevertheless, Lusardi and Mitchell (2007) and Cude *et al.* (2006:102) accentuate that it is more vital now than ever before to be equipped with and manage financial knowledge. However, various authors (Disney & Gathergood, 2013:2252; Gutter & Copur, 2011:700; Louw *et al.*, 2013:439) highlight that many individuals lack sufficient understanding of the most basic economic concepts, which accordingly, result in serious financial consequences.

Van Nieuwenhuyzen (2009:69) states that financial literacy levels are low worldwide, which according to Louw *et al.* (2013:440), is indicative that financial illiteracy and lack of financial skills are not an isolated problem. Table 2.3 provides a summary of international survey results pertaining to financial literacy. Mandell and Klein (2009:17) reread international financial evidence on financial literacy and found that a lack of financial literacy is common in developed countries as indicated in Table 2.3.

Table 2.3: International financial literacy survey results (Van Nieuwenhuyzen, 2009:69)

Country	Main findings
New Zealand	More than 50 percent of the participants are of the opinion that fixed income investments generate a higher return than stocks over a time period of 18 years when this is in fact untrue.
Germany	While 80 percent of the participants were confident in understanding financial topics, only 42 percent managed to answer half of the questions correctly.
Japan	71 percent, 57 percent and 29 percent of participants lack knowledge about equities and bonds, financial products in general and insurance and pension respectively.
Korea	Only 60 percent of the students in Korean survey were able to answer financial literacy questions correctly in 2003.
United States of America	Grade 12s scored an average of 52.3 percent in a 2004 personal finance survey. During surveys conducted in 2000 and 2002, students taking personal finance and/or economics performed worse than average.

Interestingly, various researchers (Edwards *et al.*, 2007:91; Falahati & Paim, 2011c:1181; Goldsmith & Goldsmith, 2006:56; Van Rooij *et al.*, 2011:598) found that men reported more overall financial knowledge than women did. More specifically, men are more knowledgeable about investment topics than women are. Chen and Volpe (2002) found that men performed better in all the financial literacy topics measured, such as general knowledge, saving and borrowing, and insurance, than women did, and attribute these results to the fact that women value English and humanities more, whereas men value mathematics and science more. Consequently, it seems as if business majors and non-business majors may play a role in the level of financial literacy. Robb and Sharpe (2009:27) mention that individuals, in particular students, that have more years of higher education may have higher levels of financial literacy than those with less years of higher education. This infers that a third- and post-graduate student is likely to be more knowledgeable about financial issues than a first-year student would be.

Studies conducted on the financial literacy of students (Chen & Volpe, 1998; Chen & Volpe, 2002; Cude *et al.*, 2006; Falahati, Babaei *et al.*, 2011; Falahati & Paim, 2011c; Gamino & Montoya, 2009; Louw *et al.*, 2013; Volpe *et al.*, 1996), report that students are in desperate need of personal financial management skills and financial knowledge

concerning personal finance, owing to mean scores below the 65 percent level. Falahati and Paim (2011b:9601) agree with this statement. Hence, it appears as if education internationally is failing in providing generations of the future with the necessary financial literacy skills.

Swart (2005:49) explains that the financial literacy problems among students in South Africa can be attributed to the exclusion of personal financial management in all degrees. Moreover, the current education system is depriving students of the opportunity to become financially mature. As a result, tertiary educational institutions are failing in preparing students to take on financial challenges that are awaiting them in the near future. Duncan (2013) mentions that a call for compulsory financial literacy training in schools provided by the Financial Intermediaries Association of Southern Africa (FIA) has come to light as a result of the low financial literacy. It is believed that many South Africans could benefit from this school level financial literacy education, since household domestic savings are shockingly low (-0.02% at present) and almost half of the nine million credit active consumer population have a negative credit listing.

Financial education is not the only role player concerning financial literacy; it also involves parental socialisation. Grinstein-Weiss *et al.* (2011:78) claim that parents should be involved in the financial socialisation of children, as it will empower children with the necessary financial skills and habits that will be carried into adulthood. A study conducted by Hira (1997) found that family and parents, *inter alia*, were recognised as the most important socialisation agents influencing children's financial attitudes and beliefs, suggesting that younger individuals learn the symbolic meaning of money from family and parents. Various researchers (Jorgensen & Salva, 2010:467; Sabri *et al.,* 2010:458) agree that parents seem to have an influence on the financial literacy of children. Therefore, Shim *et al.* (2009:710) state that parental socialisation, with specific reference to money, may have a favourable influence on the youth's efforts to obtain financial literacy, financial skills and positive financial attitudes.

Given the statistics globally, it is evident that individuals do not save and take on a lot of debt that is high in interest and unsecured, possibly indicating a lack of financial literacy about personal finance. As a result, short- and long-term personal financial planning is in danger, which could have detrimental consequences. In the following section, the consequences of low and high levels financial literacy are indicated.

2.5.3 Consequences of low and high levels of financial literacy

Deficiencies in the level of financial literacy can have distressing negative consequences. According to Sabri *et al.* (2012:153), inadequate savings and ineffective credit management, such as increased debt and high spending, are negative consequences of insufficient financial literacy. Various authors (Braunstein & Welch, 2002:445; Gutter & Copur, 2011:699; Symanowitz, 2006:7) agree that insufficient financial literacy may have an effect on the individual's everyday financial resource management, the individual's credit rating, and capability to attain long-term goals such as purchasing property and a vehicle, obtaining insurance and bank loans, making provision for higher education, and reaching the desired savings level for retirement. Mahdzan and Victorian (2013:276) agree that it is doubtful whether financially illiterate individuals are planning for retirement and add that these individuals are unlikely to accumulate wealth. The information stated in Section 2.2.2 also confirms this statement.

Financial illiteracy, as stated by Mandell and Klein (2009:16), may not only influence the individual but could have detrimental consequences for the economy as well. Potential consequences include impaired business cycles, a greater variation in the distribution of income and wealth, depreciation of the value of the currency as well as inflation. Symanowitz (2006:7) adds that financial institutions' financial standings are negatively affected owing to individuals' ineffective financial decisions; therefore, these institutions face the risk of higher-than-expected financial losses as a result of individuals' financial misbehaviour and bankruptcies.

According to Borden *et al.* (2008:25), higher levels of financial literacy are associated with good record keeping, and the probability that the individuals will choose the most appropriate option when provided with a hypothetical scenario concerning a financial decision is higher than for those individuals who are lacking financial literacy. High levels of financial literacy may positively influence individuals and may exert positive financial attitudes. Robb and Sharpe (2009:28) discovered that the expectation for individuals with higher levels of financial knowledge is that they pay all balances in full every month. Furthermore, significantly higher financial literacy levels enable individuals to make better-informed financial decisions, possibly resulting in the attainment of long-term goals (Symanowitz, 2006:8). This gives an indication that there might be a relationship between financial literacy, attitudes and personal financial management. Van

Nieuwenhuyzen (2009:62) elaborates by stating that improved financial literacy results in more effective functioning of markets, improvement in social cohesion and personal wealth, more efficient debt management and decreased financial stress levels.

Mahdzan and Victorian (2013:276) conclude that improved financial literacy leads to an increased engagement in personal financial planning activities, including investing in shares and property and purchasing life insurance. This is in contrast with individuals with lower financial literacy levels.

This section has provided an in-depth discussion on financial literacy. In the following section, the target market of this study, namely Generation Y, will be discussed.

2.6 GENERATION Y COHORT

Defining a generation is difficult, since the terminology used to label different generations is not standardised owing to various researchers producing a variety of dissimilar names to label the specific generations. Furthermore, there is substantial lack of agreement among the different researchers about which time span should be covered within any one generation (Reeves & Oh, 2007:296). Table 2.4 presents the different definitions of generations, as given by various authors.

Table 2.4: Generational classifications (Reeves & Oh, 2007:296)

Author	**Generational classification**				
Lancaster and Stillman (2002)	Traditionalists (1900–1945)	Baby Boomers (1946–1964)	Generation Xers (1965–1980)	Millennial Generation; Echo Boomer; Generation Y; Baby Busters; Generation Next (1981–1999)	
Martin and Tulgan (2002)	Silent Generation (1925–1942)	Baby Boomers (1946–1960)	Generation X (1965–1977)	Millennials (1978–2000)	
Oblinger and Oblinger (2005)	Matures (<1946)	Baby Boomers (1947–1964)	Gen-Xers (1965–1980)	Gen-Y; NetGen; Millennials (1981–1995)	Post-Millennials (1995–present)

As mentioned in the introduction of Chapter 1, generational studies classify the youth as Generation Y and as those individuals born between 1986 and 2005, which, in 2013 puts them at nine to 28 years of age (Markert, 2004:21). The members of Generation Y are also acknowledged as echo boomer, the millennium generation and the Net Generation (Anon., 2009a; Cudmore *et al.,* 2010:4; Leung, 2009; Schiffman *et al.,* 2010:410; Schlitzkus *et al.,* 2010:108; Theilfoldt & Scheef, 2004).

Confidence, passion, strong-will, optimism, adaptability to change, demanding, high level of expectations, tech savvy, team player, independence, diverse and voicing of opinions are identified as characteristics of Generation Y members (Anon., 2009a; Cox *et al.,* 2008; Du Plessis *et al.,* 2009:2; Pew Research Center, 2010). According to Shaw and Fairhurst (2008:366) and Schlitzkus *et al.* (2010:108), the Generation Y cohort were the first generation exposed to the Internet, mobile phones, convergent technologies and various multimedia platforms, including computer-generated social media networks such as Facebook, computer-generated social reporting such as Twitter and computer-generated social media such as YouTube.

Given the size of the Generation Y market and its member's tendency to utilise technology to manage personal finances, financial institutions must start planning for the future. Techno savvy financial institutions that take advantage of technology that connects with Generation Y in ways with which the members are familiar with, such as online messaging, social networking and targeted offerings to mobile phones, will be successful in their dealings with Generation Y (Constantine, 2010; Cox *et al.,* 2008). Robson (2012) concurs, stating that technology will act as a catalyst in creating a differentiating experience for Generation Y in managing personal finances.

Cui *et al.* (2003:310) claim that Generation Y is widely considered the next big generation with powerful aggregate spending. Cox *et al.* (2008) mention that Generation Y members are positioned to become the wealthiest generation thus far. Furthermore, the financial appetite of Generation Y is growing, owing to the fact that more members own a cheque account and a credit card.

The Generation Y cohort within the South African market is the first generation to experience a period where discrimination and segregation is non-existent, allowing everyone to attend multicultural schools where the youth freely socialise with diverse

races. Black Generation Y members have more opportunities available than former generations from this ethnic group since education, career and wealth-creation possibilities are obtainable (Bevan-Dye *et al.,* 2012:5582; Du Plessis *et al.*, 2009:2; Puybaraud, 2010).

This age cohort accounted for an estimated 38 percent of South Africa's population, which totalled around 20 039 986 in 2013 (Statistics South Africa, 2013). In terms of race, black Generation Y accounted for approximately 83 percent of the South African Generation Y cohort and 32 percent of the total South African population (Statistics South Africa, 2013). As indicated by Bevan-Dye *et al.* (2012:5578), black Generation Y is viewed as being optimistic, self-assured, education-directed and highly motivated individuals, and is financially comfortable because of successful professional careers.

As highlighted by Bevan-Dye and Surujlal (2011:49), Generation Y, in particular black South African Generation Y members, have a high future earning potential and consequently a higher social status. Therefore, it is essential that this generation engage in personal financial management to secure a stable financial future. Unfortunately, these members, as indicated by Borden *et al.* (2008:25), have attitudes that are more lenient towards debt, meaning that debt instalments would possibly increase. Moreover, one could infer that the Generation Y cohort would have positive attitudes to the use and misuse of credit cards.

Generation Y faces the challenge of making financial decisions in an increasingly complex financial environment and therefore financial knowledge in all areas of personal financial planning should be improved (Cudmore *et al.*, 2010:2). Currently, little is known concerning this cohort group's attitude towards personal financial management and the behaviour that they exhibit in this regard. Consumer behaviour, especially financial attitudes, should be understood to ensure better financial management. Therefore, the following section discusses the role of consumer behaviour in personal financial management.

2.6.1 Consumer behaviour and personal financial management

Schiffman *et al.* (2010:23) define consumer behaviour as the behaviour individuals portray in searching for, obtaining, consuming, gauging and disposing of products and services that are expected to satisfy individual needs. An attitude is defined as evaluative

statements or learned predispositions to react to an object, person or idea in a positive or negative manner (De Janasz *et al.*, 2012:10; Falahati & Paim, 2011a:1144). As indicated by Du Plessis *et al.* (2009:2), the attitude towards an object and the attitude towards the act or behaviour are elements identified as extremely significant in prophesying future behaviour. Consumer attitudes towards money and personal finance, in this instance, will be the focus in this section.

Kempson *et al.* (2006:47) are of opinion that financial literacy and financial skills alone are insufficient to warrant the appropriate management of individuals' financial resources. According to Gitman and Joehnk (2008:8), financial resources and its function are not only closely interconnected with economic concepts, but also associated with psychological notions of values, emotion and personality. Therefore, individuals must be willing to take the necessary steps to relate financial knowledge and apply financial skills, and this is mainly dependent on the individual's attitude. Mandell (2006:6) agrees with this statement. As highlighted by Garman and Forgue (2008:60), an individual's value system, which comprises the fundamental beliefs about what is important to the individual, what the individual desires, and what the individual perceives to be worthwhile, will shape the individual's attitude towards money and personal financial management.

Falahati and Paim (2011a:1144) mention that attitude towards money plays a vital role in determining an individual's personal financial management and level of financial well-being. Joo and Grable (2004:30) add that individuals with generally stronger perceptions and favourable financial attitudes tend to be more satisfied with financial judgements and manage financial resources more effectively, contributing to effective financial management, whereas those with a negative financial attitude will possibly face a higher level of financial difficulties.

Venter (2008:106) indicates that money attitudes and feelings of individuals affect the manner in which the individuals earn, spend, save and invest money. Gitman and Joehnk (2008:8) claim that if the individuals regard status and image as important, a large percentage of their current income will be devoted to purchasing luxury goods and services. This is an indication that the individual's financial attitudes are related closely to financial goals and decisions.

Du Plessis and Du Toit (2003:59) propose 13 personal financial characteristics that have an effect on an individual's personal financial attitude including trust, involvement, emotionality, pride, altruism, power, self-determination, work ethic, reflectivity, spending, contentment, confidence and risk-taking.

From the personal financial characteristics, Venter (2008:106) identified various money personalities, with each personality being different in ensuring financial security with emotional stability. These characteristics include achievers, hunters, safety players, entrepreneurs, optimists, money masters, high rollers, perfectionists and producers.

Financial plans should convey the individual's financial attitude and values to ensure optimal personal financial satisfaction and an increased standard of living (Garman & Forgue, 2008:60). In Table 2.5, the financial attitudes of different groups of young individuals (Generation Y) are identified. Gitman and Joehnk (2008:8) mention that attitudes towards personal financial management may be favourable (love, happiness, security) or unfavourable (fear, insatiability, insecurity) and therefore suggest that individuals become attentive with regards to attitudes towards money, owing to the fact that these attitudes form the basis of an individual's money management style and money personality.

Table 2.5: Typology of financial attitudes (Van Nieuwenhuyzen, 2009:112)

Group	Financial attitudes
Conservatives: Focused on the future, both short- and long-term and are vigilant with money matters.	Opposed to debt; value saving for the future and emergencies; associate with parental money attitudes and way of life.
Hedonists: Focused on the present time, live on a day-to-day basis, are very optimistic and are pleasure seekers.	Debt is unavoidable; spends guilt-free; irresponsible when it comes to money matters.
Mixed: Focused on the present and future time and combine elements of each parent's philosophy where these vary.	Divided between saving and spending; feel some culpability about spending.
Aspirers: Future directed, with the future clearly mapped out. This group forestall and desire material success and will work hard and embark on proper planning to ensure this attainment. This group is also viewed as being entrepreneurial and innovative.	View money as a tool for financial security and prosperous financial future; more financially literate owing to an interest in financial affairs.

Studies conducted on financial attitudes concerning gender differences (Edwards *et al.*, 2007; Falahati, Babaei *et al.*, 2011; Goldsmith & Goldsmith, 2006) found that women are more likely to prepare a budget than men are; men have a more positive attitude towards credit cards than women do, even though women are in possession of more credit cards than men are and women have higher debt levels than men do.

Thus, understanding different attitudes towards personal financial management provides appropriate knowledge concerning individuals', in particular the youth, financial needs and education, ultimately to enhance financial management.

2.7 SYNOPSIS

The core focus of this study is to determine black Generation Y students' attitudes towards personal financial management and establish a level of financial literacy and perceived personal financial skills. Even though financial skills are not discussed in a specific section of this chapter, it is regarded as important in financial planning and therefore incorporated in the sections. Financial skills are also included in the measuring instrument for statistical purposes.

Within this chapter, subject matters were discussed with the purpose of setting the theoretical grounding of the study in accordance with the theoretical objectives set in Chapter 1. These subject matters include personal financial planning (Section 2.2), with specific reference to the definition (Section 2.2.1), an overview (Section 2.2.2), the life cycle (Section 2.2.3), the process (Section 2.2.4), benefits (Section 2.2.5) and important areas of personal financial planning (Section 2.2.6). Highlighted in Section 2.3 are the tools employed to measure and assess personal financial performance, including annual financial statements (Section 2.3.1) and the personal financial budget (Section 2.3.2). Section 2.4 encompasses the fundamental principles of personal financial management, namely the risk-return principle (2.4.1), cost-benefit principle (2.4.2) and the time value of money principle (2.4.3). In Section 2.5, an outline of financial literacy, with reference to the definition (Section 2.5.1), an overview (Section 2.5.2) and consequences of low and high levels of financial literacy (Section 2.6.3), are given. The chapter concludes with a discussion on the targeted Generation Y cohort (Section 2.6) and the role of consumer behaviour in personal financial management (Section 2.6.1).

In the chapter to follow, Chapter 3, an analysis of the research methodology as outlined for the empirical potion of this research study is provided. The topics discussed in this chapter include formulating the research objectives and research design, research approach, data collection method, pre-testing of the questionnaire, administration of the questionnaire, primary data analysis and statistical analysis.

CHAPTER 3

RESEARCH METHODOLOGY

"When you can measure what you are talking about and express it in numbers, you know something about it."

— William Thompson

3.1 INTRODUCTION

Marketing research is defined as a process that is systematic and objective in nature and involves the gathering, analysis, circulation and use of data to provide assistance in decision-making relating to issues associated with marketing (Cant *et al.*, 2005:3; Malhotra, 2010:39). According to Kolb (2008:7), marketing research is information used to identify and define marketing opportunities and problems; generate, refine and evaluate marketing actions; monitor marketing performance and improve understanding of marketing as a process.

The preceding chapter focused on providing a literature review on various financial aspects that form part of the broad spectrum of personal financial management, thereby laying the underpinning for the research instrument and the research methodology. Through analysing the empirical portion of the study, this chapter concentrates on discussing the research methodology employed in this study from the perspective of personal financial planning, financial literacy and personal financial management skills.

As indicated in Chapter 1, the primary objective of this study was to investigate black Generation Y students' knowledge of, and attitudes towards, personal financial management. This primary objective was then deconstructed into seven empirical objectives (refer to Section 1.3.3), which dictated the collection of the following required data:

- Determine black Generation Y students' attitudes towards personal financial planning such as the financial planning process, credit planning, insurance planning, investment planning, retirement planning and estate planning.

- Determine whether black Generation Y students' attitudes towards personal financial planning differ according to their demographic profiles such as gender, year of study and source of income.
- Determine black Generation Y students' level of financial literacy, in the context of personal financial planning such as general financial knowledge, saving, spending and debt literacy.
- Determine whether black Generation Y students' level of financial literacy, in the context of personal financial planning, differ according to their demographic profiles such as gender, year of study and source of income.
- Determine black Generation Y students' perceived personal financial management skills.
- Determine whether black Generation Y students' attitudes towards their perceived personal financial management skills differ according to their demographic profiles such as gender, year of study and source of income.
- Determine the relationship between black Generation Y students' attitude towards personal financial planning, their level of financial literacy and their perceived personal financial management skills.

This chapter describes the research methodology, with specific reference to the methods employed for gathering the data for the empirical part of this study. The first section, Section 3.2, outlines the research design of the study. Section 3.3 describes the research approach applied in this study. Section 3.4 stipulates the sampling procedure, by describing the population of this study, the sampling frame, sampling method and sample size. Section 3.5 forms part of the sampling procedure and comprises a discussion regarding the data collection method, including the questionnaire design, question format and questionnaire layout. In Section 3.6, the pre-testing of the questionnaire is discussed. Section 3.7 stipulates the operational procedure and execution of the sample plan by describing the administration of the questionnaire. Section 3.8 describes the data preparation procedure. In the last section, Section 3.9, an outline on the various statistical procedures utilised in this study, namely reliability analysis, validity analysis, descriptive analysis, and tests of significance. The following section describes the design of the

research, which was used to ensure that the study made use of reliable procedures and methods of enquiry.

3.2 RESEARCH DESIGN

The research design is a plan to be followed to answer the marketing research objectives (Berndt & Petzer, 2011:31) and may be categorised into one of three classifications, namely exploratory research, causal research, and descriptive research (Iacobucci & Churchill, 2010:58; McDaniel & Gates, 2007:71). These three research designs are briefly discussed as follows:

- **Exploratory research:** This type of research is conducted with the purpose of clarifying unclear situations (Zikmund & Babin, 2013:48) or to discover ideas on research problems (Iacobucci & Churchill, 2010:60) and to formulate questions and hypotheses for more precise investigation (Struwig & Stead, 2010:7). Cant *et al.* (2005:30) explain that generally, the information required for this type of research is defined loosely, as the process forward is flexible and unstructured. Malhotra (2010:103) concurs, stating that the findings of exploratory research should be viewed as tentative or as input to further research.

- **Causal research:** The goal of causal research is to determine if a change in one variable results in other variables changing, and if the other variables do change, by how much (Kolb, 2008:27; Remler & Van Ryzin, 2011:15). Malhotra (2010:113) reiterates this by stating that this type of research is employed to acquire evidence of cause-and-effect relationships. In other words, causal research determines, by means of experiments, how an independent variable causes an effect on a dependent variable, while holding all other variables constant (Cant *et al.,* 2005:36).

- **Descriptive research:** Descriptive research is another form of conclusive research (Malhotra, 2010:103), with the aim of describing characteristics of objects, groups, people or environments (Zikmund & Babin, 2013:49) with accuracy and completeness (Struwig & Stead, 2010:8). This research provides answers to questions on who, what, when, where and how (McDaniel & Gates, 2007:72). Leedy and Ormrod (2010:182) add that this research does not comprise changing

or altering the situation under analysis, nor is it intended to determine cause-and-effect relationships.

Longitudinal and cross-sectional research designs are further classifications of descriptive research (Iacobucci & Churchill, 2010:86). Longitudinal research designs are examinations comprising an identical fixed sample of elements that are measured repeatedly (Berndt & Petzer, 2011:133). This is in contrast with cross-sectional research designs, where information is gathered from any given sample of population elements only once (Cant *et al.*, 2005:35). In a single cross-sectional design, a single sample of participants is drawn from the specified target population and data are gathered from the sample only once. However, in a multiple cross-sectional design, two or more samples of participants are involved, from which information is collected once (Malhotra, 2010:108).

For the purpose of this study, descriptive research has been implemented as this study attempts to uncover participants' attitudes towards personal financial planning, their level of financial literacy in the context of personal financial planning, and their perceived personal financial management skills. Moreover, a single cross-sectional approach was used, as the information was obtained from the sample only once. The research approach utilised in this study is discussed in the following section.

3.3 RESEARCH APPROACH

Quantitative and qualitative researches are commonly used research approaches in a research study. According to Maree *et al.* (2011:257), quantitative research makes use of numerical data to examine the correlations between the variables. Therefore, quantitative studies are either descriptive or experimental in nature (Leedy & Ormrod, 2010:182). The principal purpose of quantitative research is to test hypotheses on a large representative sample by making use of structured data gathering procedures (Struwig & Stead, 2010:4). In contrast, qualitative research makes use of techniques that are not dependent on numerical measurements (Zikmund & Babin, 2013:97). Qualitative methods attempt to develop an understanding of how participants experience a specific occurrence or incident (Berndt & Petzer, 2011:84). Moreover, this research approach uses fewer participants who are not necessarily representative of all elements in the population (Kolb, 2008:29), and an unstructured, exploratory research methodology applies (Malhotra, 2010:73).

For the purpose of this study, a quantitative study was chosen. Three scales were used in this study. The first scale (30 items), measuring student's attitudes towards personal financial planning, was adapted from the Boon *et al.* (2011) financial planning scale, which was used in a similar study done in Malaysia. The second scale (18 items), measuring students' financial literacy in the context of personal financial planning, was adapted from Jump$tart Coalition (2008), as adapted by Symanowitz (2006). The third scale (10 items), measuring students' perceptions of their personal financial management skills, was adapted from the Falahati, Paim *et al.* (2011) financial management skills scale used in a similar study in Malaysia. The sampling plan used in this study is discussed next.

3.4 SAMPLING PROCEDURE

The process of developing a functioning sampling procedure can be summarised by the seven steps in the sampling plan, illustrated in Figure 3.1. These steps are defining the population, selecting a data collection method, identifying a sampling frame, choosing a sampling method, establishing sample size, developing operational procedures, and implementing the sampling plan. These steps are interconnected and pertinent to all facets of the research study. For that reason, sample design decisions should incorporate all other decisions in a research study (McDaniel & Gates, 2007:376).

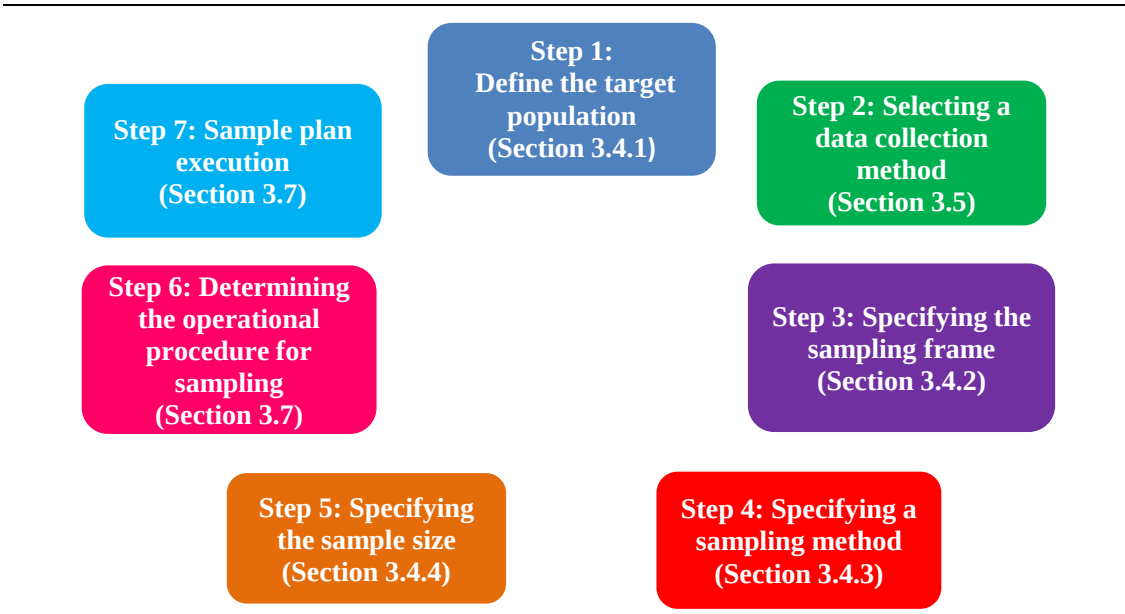


Figure 3.1: Developing a sample plan (McDaniel & Gates, 2007:376)

Zikmund and Babin (2013:312) state that the sampling process entails arriving at conclusions about a whole population by taking measurements from only a portion of all the population elements. Cant *et al.* (2005:163) define a sample as a subgroup of the population, selected to participate in the research. Sampling makes research feasible in situations where taking measurements from everyone, or on everything, is unattainable. The following sample procedure was utilised in this study:

3.4.1 Defining the target population

The target population is any complete cluster of entities that share a general set of characteristics and is in possession of information required by the researcher in order to make the necessary inferences (Zikmund & Babin, 2013:312). According to Cant *et al.* (2005:164), the target population evaluates which elements can and which elements cannot be integrated in the sample. Hence, the target population must be defined with absolute accuracy. Berndt and Petzer (2011:171) warn that an indefinite definition of the target population has a detrimental consequence on the research, as the research would be ineffective and misleading. Malhotra (2010:372) indicates that the target population should be defined in terms of elements, sampling units, extent and time. An element is an individual member of a population, usually the participant in survey research. Elements of a sampling unit are the elements about which information is wanted, and the extent and time factor refers to the geographical boundaries and the time period under consideration, respectively (Struwig & Stead, 2010:109). The target population relevant for this study was defined as black Generation Y students between the ages of 18 and 24 years, who were enrolled full-time at registered public South African HEIs during 2013.

3.4.2 Sampling frame

Malhotra (2010:373) describes the sampling frame as a depiction of the elements of the target population and entails a list, for example a telephone directory (Iacobucci & Churchill, 2010:284), or a set of directions for recognising the target population. The sampling frame for this study consisted of the 23 public registered South African HEIs, comprising 11 universities, six comprehensive universities, and six universities of technology, as published by Higher Education in South Africa (2013). These HEIs and their locations (Higher Education in South Africa, 2013) are listed in Table 3.1.

Table 3.1: Registered South African public HEIs

Institutions	Website	Location
Cape Peninsula University of Technology	www.cput.ac.za	Western Cape
Central University of Technology	www.cut.ac.za	Free State
Durban University of Technology	www.dut.ac.za	KwaZulu-Natal
Mangosuthu University of Technology	www.mut.ac.za	KwaZulu-Natal
Nelson Mandela Metropolitan University	www.nmmu.ac.za	Eastern Cape and Western Cape
North-West University	www.nwu.ac.za	North-West and Gauteng
Rhodes University	www.ru.ac.za	Eastern Cape
Tshwane University of Technology	www.tut.ac.za	Gauteng, Mpumalanga, Limpopo and North West
University of Cape Town	www.uct.ac.za	Western Cape
University of Kwazulu-Natal	www.ukzn.ac.za	KwaZulu-Natal
University of Fort Hare	www.ufh.ac.za	Eastern Cape
University of Free State	www.ufs.ac.za	Free State
University of Johannesburg	www.uj.ac.za	Gauteng
University of Limpopo	www.ul.ac.za	Limpopo, Gauteng
University of Pretoria	www.up.ac.za	Gauteng
University of South Africa	www.unisa.ac.za	All provinces
University of Stellenbosch	www.sun.ac.za	Western Cape
University of Venda	www.univen.ac.za	Eastern Cape
University of the Western Cape	www.uwc.ac.za	Western cape
University of the Witwatersrand	www.wits.ac.za	Gauteng
University of Zululand	www.uzulu.ac.za	KwaZulu-Natal
Vaal University of Technology	www.vut.ac.za	Gauteng, North-West, Mpumalanga and Northern Cape
Walter Sisulu University for Technology & Science	www.wsu.ac.za	Eastern Cape

Source: Higher Education in South Africa (2013)

From the sampling frame specified above, one sample was selected conveniently from two HEIs located in the Gauteng province. These two HEIs comprise a traditional university and a university of technology. The reason the Gauteng province was chosen for this study is that it comprises the largest share of the South African population. The two HEIs were selected based on convenience sampling due to their close geographic proximity, which makes the research more manageable and reduces time and cost. A convenience sample of one group of participants was then selected, namely full-time registered students.

3.4.3 Sampling method

The selection of a sampling method will primarily depend on research objectives, financial constraints, time restrictions, and the nature of the problem under examination (McDaniel & Gates, 2007:379). The sampling method refers to the manner in which the sample will be drawn (Cant *et al.*, 2005:165). The main alternative sampling methods are grouped commonly under two headings, namely probability and non-probability sampling (Maree *et al.*, 2011:172). Figure 3.2 graphically depicts these two classifications with their sub-groups.

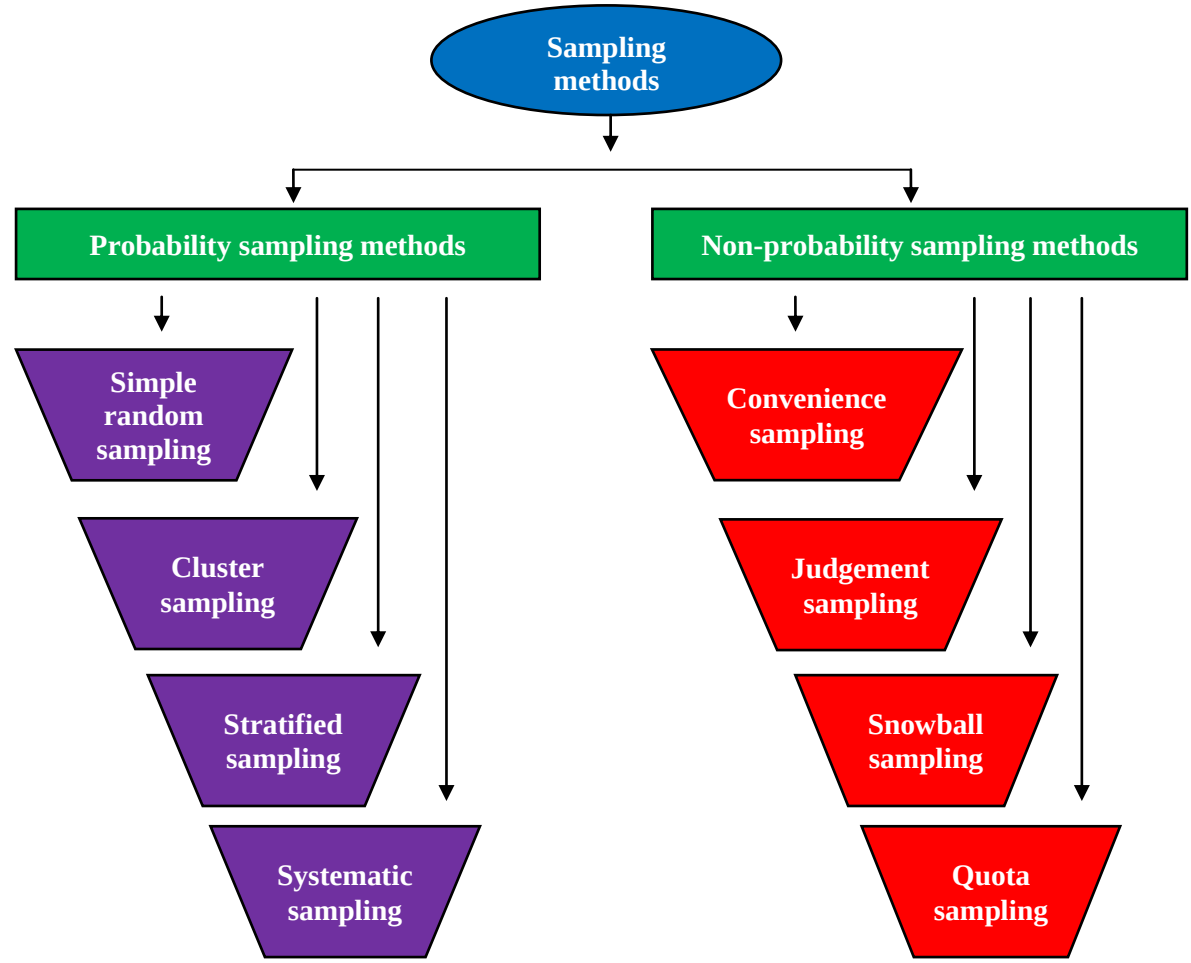


Figure 3.2: Sampling methods (Berndt & Petzer, 2011:174)

Every element in the population has a known, non-zero likelihood of selection when the probability sampling method is employed (Iacobucci & Churchill, 2010:285; Maree *et al.*, 2011:172; Struwig & Stead, 2010:112). Moreover, the inclusion of the elements is completely random. A distinguishing feature of probability sampling is that each segment of the population will be represented in the sample and can be specified in advance (Leedy & Ormrod, 2010:205). The types of probability sampling methods (refer to Figure 3.2) includes simple random sampling, cluster sampling, stratified sampling and systematic sampling. Simple random sampling involves selecting population elements is such a manner that each element has an equal probability of random selection (Remler & Van Ryzin, 2011:158). In cluster sampling, a random sample of clusters from the mutually exclusive and collectively exhaustive subpopulations is selected by utilising a probability sampling technique such as simple random sampling (Malhotra, 2010:385). With stratified sampling, a random sample of elements is drawn independently for each

stratum of the homogeneous strata by employing either random sampling or systematic sampling (Berndt & Petzer, 2011:174). A systematic sampling procedure entails selecting a starting point by a random process; subsequently, every *n*th number on the list is selected (Zikmund & Babin, 2013:326).

Non-probability sampling do not make use of probability selection techniques, instead, the personal judgement of the researcher is relied on (Malhotra, 2010:376). Moreover, it is impossible for the researcher to project or assure that every single element of the population will be represented in the sample (Leedy & Ormrod, 2010:211). The techniques commonly used to conduct non-probability sampling (refer to Figure 3.2) include convenience sampling, judgement sampling, snowball sampling and quota sampling. Convenience sampling refers to circumstances when population elements are selected effortlessly, expediently, and cost and time efficiently (Maree *et al.*, 2011:177). Judgement sampling involves the selection of participants based on the researcher's expert judgement (Struwig & Stead, 2010:111). With snowball sampling, the researcher intentionally selects a number of participants, with particular characteristics, with the purpose of using these participants as information to identify further individuals with identical characteristics who will subsequently also participate in the study (Berndt & Petzer, 2011:174). Finally, quota sampling is conducted when the different subgroups of a population are represented on the characteristics of interest to the researcher (Cant *et al.*, 2005:166).

The sampling method applied in this study was a non-probability convenience sample of 500 full-time undergraduate students, registered at two South African HEIs, aged between 18 and 24 years.

3.4.4 Sampling size

Malhotra (2010:374) presents an uncomplicated definition of the sample size by stating that it is the amount of elements to be incorporated in the research study. A larger sample size is valuable as it increases precision, which in turn increases the likelihood of identifying statistically significant differences between groups (Remler & Van Ryzin, 2011:281). With non-probability samples, as applied in this study, the analysis of factors such as budgetary constraints, rules of thumb, and the number of subgroups, are relied upon in determining the sample size (McDaniel & Gates, 2007:382). Struwig and Stead

(2011:120) advise using a sample size in the range of similar studies conducted in order to compare other researcher's judgements.

A sample size of 500 full-time undergraduate black Generation Y students was selected for this study. The sample size is in the range of other studies of this nature, such as Cui *et al.* (2003) (sample size of 400), Lai and Tan (2009) (sample size of 400), Falahati, Paim *et al.* (2011) (sample size of 350) and Sam *et al.* (2012) (Sample size of 500) and, therefore, was considered sufficiently large. The sample size of 500 black Generation Y undergraduate students was split between the two registered South African public HEIs, thus allowing a sample size of 250 black Generation Y full-time undergraduate students per HEI.

3.5 DATA COLLECTION METHOD

According to Struwig and Stead (2010:41), a data collection method denotes how the data will be obtained. McDaniel and Gates (2007:377) highlight that the selection of a data collection method may have repercussions for the sampling process, such as Internet surveys, which may lead to a non-representative sample because of older generations not knowing how the Internet works. Therefore, due care must be taken in the selection. According to Malhotra (2010:228), the method used to collect the data must allow the participant control over the entire process, as it will solicit superior cooperation. Quantitative studies utilise two common data collection methods, namely the observation and the survey methods.

The observation method is a systematic process of recording actual behavioural patterns of individuals, objects and occurrences as they happen, and requires no questioning or communication between the observed participant and the researcher or interviewer (Maree *et al.,* 2011:83; Zikmund & Babin, 2013:190). Observation is carried out in person or by using a device, for example a sound recorder or video camera (Berndt & Petzer, 2011:46). According to Struwig and Stead (2010:96), the observation method has a limitation in terms of the difficulty of observing attitudes, motivating factors, and intentions, resulting in biased data.

With the survey method, a questionnaire is utilised to permit a systematic and organised approach to data gathering (McDaniel & Gates, 2007:73). Malhotra (2010:211) adds that the structured questionnaire is designed to bring forth meticulous information from the

participants. Structured refers to the extent to which standardisation is imposed on the data gathering process. According to Maree *et al.* (2011:155), within the survey method, researchers gather information that is relevant to the participants' attitudes, values, feelings, opinions, perceptions and beliefs. Different survey methods include, amongst others, personal interviews, telephone surveys, mail surveys, online interviews, self-administered questionnaires and drop-off surveys (Cant *et al.,* 2005:95).

A drop-off survey is an additional survey method and involves physically dropping off the questionnaire at the participants' location, and arranging a time to collect the completed questionnaire (Zikmund & Babin, 2013:176). Malhotra (2010:228) adds that the drop-off surveys report higher response rates, and are especially useful for local-market surveys.

With self-administered surveys, the participant included in the research study completes the questionnaire without the presence of the interviewer or researcher (Berndt & Petzer, 2011:48).

The method of data collection chosen for this study was the drop-off survey method, where a standardised self-administered questionnaire was utilised to collect the required data specified in Section 3.1. After permission to distribute the questionnaires to their students were obtained telephonically from participating lecturers at each of the two selected HEI campuses, the questionnaires were hand-delivered to those lecturers, who then distributed the questionnaires to their students for completion during class or after class. Owing to the structured and undisguised design of the questionnaire, it handily enables the lecturers to hand out the questionnaire. The research instrument in this study, namely the questionnaire, will be discussed in the next section.

3.5.1 Questionnaire design

Cant *et al.* (2005:147) indicate that questionnaires, which are also referred to as schedules, interview forms, or measuring instruments, consist of a set of questions used to gather information from participants, and is the most common measuring instrument used to conduct marketing research. Zikmund and Babin (2013:152) define participants as the individuals who answer the questions during a survey. Iacobucci and Churchill (2010:221) indicate that a professional physical appearance of the questionnaire is essential in an attempt to obtain the co-operation of the participants, together with the

introduction and cover letter. Zikmund and Babin (2013:174) recommend accompanying a structured self-administered questionnaire with a cover letter, to provide the participants with details surrounding the purpose of the study, and to motivate the participant to complete and return the questionnaire.

Berndt and Petzer (2011:198) state that when a questionnaire is designed, special attention should be devoted in determining the question structure, question order, the wording, and how the questions relate to the response formats. As highlighted by Cant *et al.* (2005:147), a questionnaire has three objectives. First, it should convert the necessary information into unambiguous questions that the participants can answer. Secondly, the questionnaire design should be of such a nature that the participants are encouraged to partake in the research. Thirdly, the questionnaire design should be able to attain the research objectives of the research study.

Berndt and Petzer (2011:186) explain that the research questions should be directed on a single subject matter or issue, and state the information required clearly. Therefore, the phrasing of every question is critical to ensure that participants clearly and easily understand them. According to Cant *et al.* (2005:155), poorly phrased questions will elicit erroneous answers, or result in questions not answered at all. Struwig and Stead (2010:91) present the following guidelines to researchers when phrasing questions:

- the question should undoubtedly define the topic being addressed
- use ordinary words to construct a question and ensure the words correspond with the vocabulary level of the participants (no slang and abbreviations)
- avoid using ambiguous words such as usually, normally and sometimes, as this could confuse participants owing to different meanings attached to these words
- avoid the use of leading questions, which provides the participant a hint as to what response is wanted
- avoid implicit alternatives and assumptions
- make use of positive and negative statements
- avoid including two issues in a single question, as this could result in ambiguous responses
- avoid double-negative questions that may cause confusion

- avoid asking sensitive questions that might cause offence to participants
- avoid culture-specific terms
- instead of using one complex question, rather use two or three simple questions.

Maree *et al.* (2011:159) as well as McDaniel and Gates (2007:353) state that participants should be able to complete a questionnaire within a time frame of 20 minutes or less, suggesting therefore that the questionnaire should not exceed more than 100 to 120 items. The timeframe should be confirmed by a pilot study.

The aforementioned recommendations guided the phrasing of the questions included in this study's questionnaire. Due care was taken to ensure the language used in the questionnaire was simple, using unambiguous words, and that each question was constructed in a clear manner. The questionnaire used in this study was accompanied by a cover letter (refer to Annexure A). The purpose of the cover letter was to explain the purpose of the study and supply the relevant contact details. The questionnaire used in this study could be completed within 20 minutes, and the items included did not exceed 100 items, which makes the length of the questionnaire acceptable. The questionnaire is presented in Annexure B.

3.5.2 Question format

The study utilised three previously validated scales from the literature to obtain the necessary data. Boon *et al.* (2011) employed the financial planning scale to conduct research on Malaysian individuals' attitudes towards, and knowledge of, financial planning. Owing to their scale corresponding with the first, second and seventh objective of this study, as formulated in Chapter 1 (Section 1.3.3), the scale was adapted and employed in this study. The 30-item scale measuring the students' attitudes towards personal financial planning comprised six dimensions, namely the financial planning process (5 items), credit planning (5 items), insurance planning (5 items), investment planning (8 items), retirement planning (3 items), and estate planning (3 items).

The Jump$start (2008) scale, as adapted from Symanowitz (2006), employed the financial literacy scale, comprising multiple-choice questions to conduct research on the relationship between financial literacy, economic measures and delayed gratification in South African high school learners. Owing to this scale corresponding with the third,

fourth and seventh objective of this study, as formulated in Chapter 1 (Section 1.3.3), the scale was adapted and employed in this study. It should be noted that only 18 questions from 49 questions, as presented in this scale, were employed in this study. Therefore, the students' financial literacy was measured by using 18 multiple-choice questions, whereby students were asked to choose one of the four alternatives provided.

Falahati, Paim *et al.* (2011) employed the financial management skills scale to conduct research on Malaysian university students' perceived personal financial management skills and educational needs. Owing to this scale corresponding with the fifth, sixth and seventh objective of this study, as formulated in Chapter 1 (Section 1.3.3), it was adapted and employed in this study. Therefore, the financial management skills scale comprised ten items pertaining to students' perceived personal financial management skills. The research instrument utilised in this study was modified, based on previous literature and similar research studies relevant to personal financial management, as reviewed in Chapter 2. This is in line with the primary objective of this study, as formulated in Chapter 1.

Question or questionnaire format refers to the incorporated arrangement of sets of questions into a methodical instrument, as well as the degree of freedom given to the participants in providing their responses (Czinkota & Ronkainen, 2010:258). Zikmund and Babin (2013:171) describe a self-administered questionnaire as a survey in which the participant assumes the responsibility for reading and answering the questions without having the questions/statements stated verbally by the interviewer or researcher. Furthermore, an ideal type of structured questionnaire to use is a self-administered questionnaire.

Questions can be structured or unstructured. Bell (2005:160) states that structured questions are also referred to as closed questions, whereas unstructured questions are also referred to as open questions. Maree *et al.* (2011:161) indicate that in the case of an open question, a question is asked to the participant and space is made available for a word, phrase, or even a comment. The analysis of an open question is more complicated compared to analysing closed questions. Hopkins (2005:161) explains that open questions are generally used to generate research hypotheses, whereas closed questions are utilised to test the research hypotheses. Structured questions, or closed questions, as highlighted by Cant *et al.* (2005:151), specify the permitted responses that are made available to the

participant. Berndt and Petzer (2011:187) stipulate various advantages of open-ended and closed-ended questions respectively. Open questions allow participants to supply honest answers and detail, the thinking process of the participant is uncovered and difficult questions can be satisfactorily answered. Closed questions are easy and quick to answer, coding and statistical analysis are simple, and sensitive questions are answered with less difficulty. Iacobucci and Churchill (2010:604) indicate that the intention of a disguised questionnaire is to hide the purpose of the study, whereas an undisguised questionnaire makes the purpose of the study apparent in the questions asked. For self-administered questionnaires, as applied in this study, participant cooperation is enhanced if the majority of the questions are structured.

According to Malhotra (2010:344), a structured question may be multiple choices, where the participants are asked to select one or more possible responses or answers from the alternatives provided (Zikmund & Babin, 2013:285), dichotomous, where the participants are asked to select a response from only two alternatives, or a scale, where the participants are asked to rate their agreement or disagreement with a specific item (Malhotra, 2010:344). For the purpose of this study, structured questions by means of multiple choice and scales were employed.

Formulating multiple-choice questions requires certain precautions such as deciding on the number of alternatives to be included (Cant *et al.*, 2005:152). Malhotra (2010:344) concur, stating that the challenges with formulating multiple-choice questions are the number of alternatives that should be included, as well as the order of stating the alternatives in order to avoid position bias. Kolb (2008:203) advises that although the response alternatives should include all possible choices, four or five alternatives are sufficient. According to Struwig and Stead (2010:93), participants should be able to identify only one alternative unless specified otherwise by the researcher, which there than should be a clear indication of how many alternatives participants are allowed to select. Two further drawbacks of multiple-choice questions, as listed by McDaniel and Gates (2007:346) are that the formulation can be time-consuming, as different alternatives have to be generated, as well as the problem of position bias, owing that participants generally select the first or last alternative, with all other things being equal. There are several advantages to employing multiple-choice questions over open-ended questions such as reduced interviewer bias, rapid administration of the questions, more efficient and

effective coding and processing of the data, as well as enhanced participant cooperation. Moreover, using structured questions, such as multiple-choice questions, in self-administered questionnaires improves participants' cooperation (Malhotra, 2010:344).

According to Cant *et al.* (2005:132), the decision regarding measurement and scaling procedures can only be taken once the type of research design has been determined. Zikmund and Babin (2013:264) define measurement as the process of describing some characteristic of a phenomenon of interest, typically by assigning numbers in a reliable and valid manner. Scaling, considered as an extension of measurement, entails developing a continuum upon which measured items are ranked. The most common way of measuring participants' attitudes, feelings and thoughts in survey research, are by means of scales (Malhotra, 2010:282). McDaniel and Gates (2007:269) state that a scale is a device offering a range of values that match up to different characteristics or amounts of a characteristic revealed in observing a concept. A concept is a comprehensive idea that embodies something of identifiable and distinct meaning (Zikmund & Babin, 2013:248). The correct scaling technique should be employed in a research study, as the various measurements will have an effect on the interpretation and statistical analysis of the data gathered.

In Figure 3.3, the scaling techniques are illustrated. However, for the purpose of this study, the focus will be directed at itemised rating scales. As indicated by Malhotra (2010:308), an itemised scale presents participants with a numbered scale that comprises short descriptions related to each category, and attitudes are measured with greater sensitivity. The scale categories are well ordered concerning scale position, and it is expected of participants to decide on a specified category that best describes the object being rated.

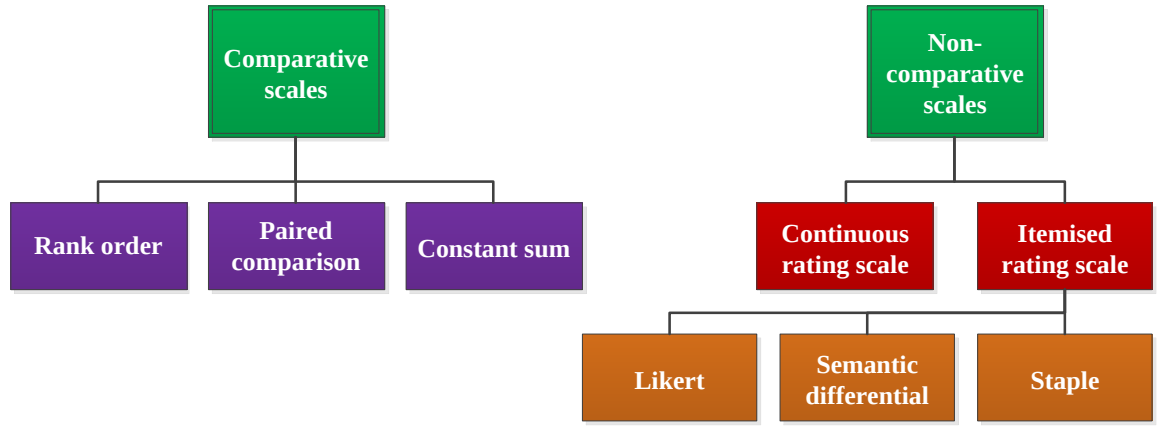


Figure 3.3: Scaling techniques (Cant *et al.*, 2005:137)

McDaniel and Gates (2007:300) dictate that itemised rating scales are easy to develop and administer, and the definite categories found in the scales typically produce ratings that are more reliable. Cant *et al.* (2005:145) highlight various decisions that have to be determined when itemised rating scales are used, namely the amount of scale categories, whether to include a neutral option category, whether to utilise a balanced or unbalanced scale structure, the nature and degree of verbal description, and the physical form and configuration.

According to Zikmund and Babin (2013:262), commonly, measures related to an individual's attitude are used; therefore various rating scales are designed to enable participants to report the intensity of their attitudes. Schiffman *et al.* (2010:61) define an attitude as an enduring disposition to react consistently in a given manner to a variety of aspects of the world; composed of emotional, cognitive and behavioural components. The most frequently used itemised rating scales are semantic differential scales, staple scales and Likert scales (Malhotra, 2010:308; Maree *et al.*, 2011:167; Zikmund & Babin, 2013:265).

- **Semantic differential scale:** This scale was developed by Charles Osgood, George Suci and Percy Tannenbaum, and according to various authors (Berndt & Petzer, 2011:192; McDaniel & Gates, 2007:303), is an extremely useful way to measure the perceptions of product or service attributes, or the image of a company, brand or store, by utilising the semantic differential scale. This is a specialised scale where a choice between two extreme points is given. Bipolar words or phrases are used to determine responses and, between these, there are

ordered categories ranging from one to seven. For example, bipolar words such as good service and poor service can be employed when participants are asked to evaluate the service of a restaurant (Cant *et al.*, 2005:143). Moreover, participants are asked to evaluate a concept on the strength of each attribute by checking the point on the continuum that best reflects their feelings or beliefs (Schiffman *et al.*, 2010:61).

- **Stapel scale:** Named after its developer, Jan Stapel, the stapel scale is a adjustment of the semantic differential scale in a manner that a single adjective is placed in the middle of the scale, which usually is a ten-point scale ranging from +5 to -5 (McDaniel & Gates, 2007:306). Cant *et al.* (2005:144) state that the direction (+ as positive towards, and – as negative towards) and the intensity (one is significantly less intense than five) of the participants' opinions are verified. Malhotra (2010:311) who recognises the advantage of not having to pre-test the adjectives or phrases to ascertain true bipolarity, nevertheless, finds the stapel scale confusing and complex in its application. Therefore, this scale is less popular and is less frequently used compared to the other two alternative itemised rating scales.

- **Likert scale:** The Likert scale was developed and named after Rensis Likert, a twentieth-century social scientist. This is the most commonly used scale as it provides an ordinal measure of a participant's attitude on given statements about the issue under study (Maree *et al.*, 2011:167). According to Cant *et al.* (2005:141), these statements can be phrased in a positive or negative manner. Participants indicate the degree of agreement or disagreement with the phrases on a symmetric agree-disagree scale. Zikmund and Babin (2013:165) indicate that researchers usually employ five response categories, ranging from strongly disagree to strongly agree, although six, seven, or even more response points are often employed. Each statement is assigned a numerical score, ranging from one to five. The researcher determines the participant's attitude towards a concept, whether it is positive or negative, by summating the participant's scores, or the analysis can be conducted on an item-by-item basis (Malhotra, 2010:309; McDaniel & Gates, 2007:307). Schiffman *et al.* (2010:61) attribute the Likert scales' popularity to the simplicity of its preparation, interpretation and the simplification of answering the questions.

For the purpose of this study, all the variables in the self-administered questionnaire were positioned in an undisguised, structured manner. The types of structured questions employed in this study included multiple choice and scales. The questions in Section A that obtained the demographic information from the participants comprised eight multiple-choice questions and one open-ended question, where the participants had to indicate their university, province of origin, year of study, degree or diploma, gender, ethnic group, mother-tongue language, age and primary source of income. In Section B and Section D of the questionnaire of this study, a six-point Likert scale was employed to measure the participants' rate of agreement or disagreement with each specific item, which is consistent with other similar studies measuring attitudes towards financial management (Lai & Tan, 2009; Murphy & Yetmar, 2010 Shim *et al.*, 2009). Each of these statements were unified with numerical values, ranging from strongly disagree (1) to strongly agree (6). In Section C of the questionnaire of this study, multiple choice structured questions were employed to measure the participants' financial literacy, which is consistent with other similar studies measuring financial literacy (Calamato, 2010; Gamino & Montoya, 2009; Van Nieuwenhuyzen, 2009). Participants were asked to choose one option from the four alternatives provided for each question. It was decided to include one closed-ended question at the end of the questionnaire as it permits the capture of more in-depth information (Czinkota & Ronkainen, 2010:258). For this structured question, participants were requested to indicate their interest in receiving personal financial management information as well as their preferred method of media for receiving this information from the university, such as through the university Website, lectures, workshops and the financial centre. Participants also had the option of indicating that they would not want to receive any information.

3.5.3 Questionnaire layout

McDaniel and Gates (2007:347) indicate that questionnaires are not developed arbitrarily; logic positioning of each section is essential. A regimented questionnaire generally generates answers that are thought out and detailed more prudently. As advised by Berndt and Petzer (2011:196), a questionnaire should be well organised and arranged neatly and professionally, which will allow for the avoidance of confusion among the participants and result in a higher response rate. Zikmund and Babin (2013:173) define the response rate as the number of questionnaires returned or completed divided by the number of

sample members who were given the opportunity to partake in the survey. According to Malhotra (2010:351), the logical order of questions is imperative, and all the questions that relate to a particular subject matter should be asked before the commencement of a new topic. Maree *et al.* (2011:159) advise that the questionnaire should include simple, clear and epigrammatic transitional phrases assisting the participants to switch their train of thoughts when switching from section to section. Cant *et al.* (2005:156) state that to ensure the participant's cooperation and participation throughout the questionnaire, interesting, simple to comprehend and easy to answer questions should be placed first.

The development of questionnaire items is one of the most important stages in the survey research process (Zikmund & Babin, 2013:280). The development of the questionnaire in a research study generally consists of two stages. The first stage involves collecting demographical data by asking participants a number of demographical questions. According to Maree *et al.* (2011:164), demographic information, including the participant's gender, age and home language is essential in determining the sample profile, in comparing the sample to population characteristics to establish whether it is representative of the population, and to investigate potential relationships between demographical variables and other variables in the research study. Malhotra (2010:350) refers to this information as classification information, in which socioeconomic and demographic characteristics are used to classify participants. Therefore, demographical information gathered in any research study is essential as it mainly relates to the primary objectives of the study. The second stage involved in the development of a questionnaire, is collecting information directly related to the central subject matter of the study and to the research objectives formulated for the study (Malhotra, 2010:350).

For the purpose of this study, the questionnaire layout was divided into four sections, namely Section A (questions A1-A9), Section B (items B1-B30), Section C (questions C1-C18) and Section D (items D1-D10). Section A, B, C and D of the questionnaire are presented in Annexure B. During the first stage of questionnaire development, the first section (Section A) concerned the collection of demographical information. Two filter questions relating to demographic information were included in Section A to ascertain that the participants meet all the necessary requirements of the sample. The first requirement included the participants' age, to ensure that the participants are part of the defined target population of 18 to 24 years of age. The second requirement included the

participants' ethnic group, which was included to ensure that only black Generation Y participants' information was analysed and interpreted.

The second stage in developing the questionnaire was designed to obtain information pertaining to the research topic and objectives and involved three sections, namely Section B, designed to obtain information pertaining to attitudes towards personal financial planning, Section C, employed to obtain insight into the participants financial literacy, and Section D, designed to obtain information pertaining to the participants perceived personal financial management skills. In order to gather the required information related to the topic and research objectives presented in Section 1.3.3, three measuring instruments were adapted and applied, namely Boon *et al.* (2011) financial planning scale, Symanowitz's (2006) financial literacy scale and Falahati, Paim *et al.* (2011) financial management skills scale. Within the second section, Section B, of the questionnaire applied in this research study, the 30 undisguised items (refer to Table 3.2) were placed together under the six constructs, as discussed in Chapter 2 (Section 2.2.6). Zikmund and Babin (2013:249) define a construct as a term used to refer to concepts measured with multiple variables.

Table 3.2: Personal financial planning variables

Construct	Variables
Construct B1: Financial planning process	Know what personal financial planning is
	Set personal financial goals and objectives
	Gather relevant data and analyse current financial position before making a financial decision
	Implement a personal financial plan with the help of experts
	Review the personal financial plan regularly to take into account changing needs and circumstances
Construct B2: Credit planning	Credit card convenience
	Pay off the full outstanding amount on accounts every month
	Pay all accounts on time each month
	Avoid maxing out or going over the limit on accounts
	Convenience of personal loans

Table 3.2: Personal financial planning variables (continued …)

Construct	Variables
Construct B3: Insurance planning	List needs for life insurance
	Comparison shopping for life insurance
	Plan to have enough life insurance
	Life insurance is the most important type of insurance
	Distinguish the different types of insurance policies
Construct B4: Investment planning	Importance of investing
	Investment plan for reaching financial goals
	Consider the opinion of friends and/or family before investing
	Understand risk profile
	Invest in different investment instruments with minimal knowledge and research
	Compound interest encourages investing
	Knowledge to invest
	Study alternatives carefully before investing
Construct B5: Retirement planning	General understanding of the amount of money required to retire comfortably
	Started retirement planning
	Importance of consulting a professional financial planner when planning retirement
Construct B6: Estate planning	Importance of having a will
	Importance of estate planning
	Importance of setting up a family trust as part of estate planning
	Having estate planning will give peace of mind when passing away

Within the third section, Section C, of the questionnaire applied in this research study, the 18 undisguised multiple choice questions, pertaining to financial literacy, were placed together under the four constructs (refer to Table 3.3), as discussed in Chapter 2 (Section 2.5).

Table 3.3: Financial literacy questions

Construct	Variables
Construct C1: General financial knowledge	Question 1
	Question 2
	Question 3
	Question 4
	Question 5
	Question 6
	Question 7
	Question 8
	Question 9
Construct C2: Saving	Question 10
	Question 11
	Question 12
	Question 13
Construct C3: Spending	Question 14
	Question 15
	Question 16
Construct C4: Debt	Question 17
	Question 18

The financial management skills scale within the fourth section, Section D, of the questionnaire applied in this research study, comprised ten undisguised items (refer to Table 3.4), and were placed under one construct.

Table 3.4: Financial management skills variables

Construct	Variables
Construct D1: Personal financial management skills	Skilled at managing daily expenses
	Skilled at managing credit/debt
	Skilled at managing finances to provide for future needs
	Time management skills
	Stress management skills
	Skilled at managing savings
	Negotiating skills
	Decision making skills
	Problem solving skills
	Skilled at career planning

The following section relates to methods utilised in the pre-testing of the questionnaire.

3.6 PRE-TESTING OF THE QUESTIONNAIRE

Pre-testing is an important component of the research survey design and no survey should be conducted without a pre-test. Moreover, the participants chosen to partake in the pre-test should be representative of the participants who will be used to administer the final questionnaire, in terms of their background, knowledge of the topic, their attitudes and behaviours. Therefore, the participants for the pre-test and for the main survey should be drawn from the same population (McDaniel & Gates, 2007:353). Berndt and Petzer (2011:146) state that it is a real calamity to realise a noteworthy imperfection in the questionnaire after a large-scale deployment of the instrument. After which, it is often impossible to repair occurring problems, thereby resulting in a significant amount of wasted time. According to Zikmund and Babin (2013:183), pre-testing entails trial runs using the survey instrument with a group of experienced researchers or actual participants to resolve fundamental problems in instructions, items, or design of a questionnaire, as well as to identify possible misinterpretations by the participants. Cant *et al.* (2005:157) indicate that pre-testing can improve the content, phrasing, sequence, layout, intuitiveness and instructions of a questionnaire.

Malhotra (2010:354) explains that following the completion of the questionnaire by the participants, the interviewer debriefs the participant, by describing the objectives of the study to the participants and then asking for feedback regarding the participants' interpretation of each question, an explanation of the participants' answers, including any other difficulties the participants experienced while completing the questionnaire. According to Berndt and Petzer (2011:147), debriefing is likely to draw attention to a number of salient points such as whether the wording in the questionnaire is clear, the amount of time participants are prepared to spend in completing the questionnaire, and whether participants have strong objections on cultural, religious or moral grounds.

This study primarily concerned two steps in the pre-testing phase to permit both face validity and content validity of the research instrument. During the first step, pertinent field researchers scrutinised the questionnaire to identify any obvious erroneous areas or possible problems. The second step involved the debriefing procedure to warrant the understanding of the questionnaire. Owing to the multilingual context of the South

African environment, it is important that all participants understand the questionnaire. Two academic staff members, one of whom was a first language English speaker and the other two, second language English speakers, were chosen to participate in the debriefing approach to pre-testing the questionnaire. The debriefing procedure was employed to ascertain that participants, who were first language English speakers, as well as those who were second language English speakers, could understand the questionnaire. It took the participants approximately 20 minutes to complete the questionnaire, which was sufficient according to McDaniel and Gates (2007:353). The feedback received from the pre-testing was used to refine the items in the questionnaire, such as including two definitions within the estate planning construct of Section B to ensure understanding of a will and an estate.

After modification of the questionnaire, as suggested by the feedback from the pre-test, the questionnaire was then distributed for pilot testing to ensure the validity and reliability, including the clarity of the questionnaire. According to Leedy and Ormrod (2010:111), a pilot study is effective to establish whether the research study is feasible or not. Moreover, even though pre-testing may be time consuming, it may ultimately save the researcher time, as the pilot test will indicate whether the measuring instrument will achieve the overall research objective. Within the pilot study, the chosen sample, by means of convenience sampling, included 39 full-time undergraduate students attained from a HEI that did not form part of the main sample. Consequently, the pilot study allowed the researcher the opportunity to perform a test analysis on coding and the tabulation of the data. Corrections were made to the questionnaire, according to problems identified within the pilot test. The final questionnaire (refer to Annexure B), combined with a cover letter (refer to Annexure A), comprised 40 Likert scaled items and 18 forced scaled items, and was distributed for the main survey.

3.7 ADMINISTRATION OF THE QUESTIONNAIRE

As illustrated in Figure 3.1, the sixth and seventh step of the sampling plan involves the specification of the operational procedure for sampling and the execution of the sample plan, respectively. The sixth step in the development of a sampling plan involves the determination of the operational procedure for sampling. The operational procedures applied in this study were comprehensive and clearly defined. For the completion of this study, the main survey was conducted on a sample of 500 black Generation Y full-time

undergraduate students in April 2013. The relevant participating academic staff members at each institution were contacted to gain permission for conducting the self-administered questionnaires during class time. The duration of the questionnaire did not exceed 20 minutes, and a single class period was deemed sufficient for completion. A cover letter explaining the nature and the purpose of the study, including instruction on how to complete the questionnaire, accompanied the questionnaire. After permission was solicited, the questionnaire was hand delivered to the participating staff members, personally by the researcher. The completion of the questionnaire took place under the supervision of the academic personnel, who were requested to inform their students that participation in the study was voluntary. A decision was made to provide academic personnel with a one week time period to distribute the questionnaires to the students, after which the completed questionnaires were collected back from the relevant lecturers.

The final step in the sampling process is the execution of the sample plan. McDaniel and Gates (2007:384) claim that this step necessitates sufficient examination to ascertain that specified procedures are adhered to. Malhotra (2010:375) denotes that the execution of the sample plan calls for a meticulous plan of how sampling design decisions regarding the population, sampling frame, sampling unit, sampling method and sample size are to be executed. The sample plan was implemented accordingly, in terms of the operational procedure outlined above. With the purpose of drawing conclusions and proposing recommendations, the final data that was obtained from the research study were tabulated and analysed. Chapter 4 represent the analysed data and respective findings.

3.8 PRELIMINARY DATA ANALYSIS

Once a researcher has completed the necessary fieldwork, data have to be converted into a format that will provide answers to formulated research questions, more formally known as data analysis (Zikmund & Babin, 2013:64). In conducting a preliminary data analysis, three steps, namely data editing, coding and tabulation are generally followed (Iacobucci & Churchill, 2010:350). Editing involves a process of thoroughly examining the questionnaires for ambiguities, inconsistencies, omissions and response errors (Cant *et al.*, 2005:189). In other words, questionnaires are reviewed with the purpose of increasing accuracy and precision (Malhotra, 2010:453).

According to Zikmund and Babin (2013:64), data have to be subjected to coding in order to become useful. Iacobucci and Churchill (2010:351) define coding as a process of assigning codes to each particular response of a question. Therefore, the symbols represent the responses that are positioned into different categories (Remler & Van Ryzin, 2011:76). This research study's questionnaire was divided into four sections. Section A was designated at collecting demographic data from the participants, Section B measured attitudes towards personal financial planning, Section C measured financial literacy and Section D perceived personal financial management skills. Pre-coding of the questionnaire took place under the direction of the study supervisor and with the support of an experienced statistician. Table 3.5 presents the coding of the data per construct.

Table 3.5: Coding of the data

Data type	Code	Question
Demographic data	**A1-A9**	**Section A: Questions A1-A9**
Personal financial planning	**B1-B30**	**Section B: Items B1-B30**
Financial planning process	B1-B5	Section B: Items B1-B5
Credit planning	B6-B10	Section B: Items B6-B10
Insurance planning	B11-B15	Section B: Items B11-B15
Investment planning	B16-B23	Section B: Items B16-B23
Retirement planning	B24-B26	Section B: Items B24-B26
Estate planning	B27-B30	Section B: Items B27-B30
Financial literacy	**C1-C18**	**Section C: Questions C1-C18**
General financial knowledge	C1-C9	Section C: Questions C1-C9
Saving	C10-C13	Section C: Questions C10-C13
Spending	C14-C16	Section C: Questions C14-C16
Debt	C17-C18	Section C: Questions C17-C18
Personal financial management skills	**D1-D10**	**Section D: Items D1-D10**

The final step involved in the preliminary data analysis process is tabulation. Leedy and Ormrod (2010:145) state that tabulating the frequency of each characteristic found in the studied material is a crucial step for content analysis. Tabulation is a process of organising the data in a systematic manner by counting the number of responses assigned

to each of the questions (Iacobucci & Churchill, 2010:32). A researcher can decide to make use of univariate tabulation, bivariate tabulation and multivariate tabulation. Univariate tabulation involves tabulating responses to one question at a time; bivariate tabulation involves tabulating responses to two questions concurrently; and multivariable tabulation comprises tabulating responses to more than two questions simultaneously (Struwig & Stead, 2010:152). This study employed univariate tabulation.

To present the data obtained from the main survey questionnaire, statistical analysis techniques were employed and are discussed in the next section.

3.9 STATISTICAL ANALYSIS

According to Berndt and Petzer (2011:34), completed questionnaires, in unrefined forms, are acknowledged as data, and no decision can be made using data. The data have to be transformed into information after researchers confirm that the questionnaires are completed and the data are captured. Struwig and Stead (2010:3) indicate that researchers' endeavour to interpret and understand what the data mean. Such interpretation and understanding is based, for the most part, on the researcher's knowledge of existing theory and the literature in the field, as well as the researcher's personal experiences and viewpoints.

The Statistical Package for Social Sciences (SPSS) is a sophisticated but user-friendly software package with built-in tutoring features utilised to analyse data that have been collected (Malhotra, 2010:59). The captured data of this study was analysed using the SPSS program, Version 21 for Microsoft Windows. The following statistical methods were applied on the empirical data sets:

- Reliability analysis
- Validity analysis
- Descriptive analysis
- Significance tests
    - T-tests
    - Analysis of variance (ANOVA)
    - Correlation analysis

The subsequent sections outline these statistical methods applied on the empirical data sets, comprehensively.

3.9.1 Reliability analysis

Maree *et al.* (2011:215) indicate that when general constructs or scales need to be measured, researchers more often than not prefer to use standardised measuring instruments. For such a measuring instrument to be standardised, it must be reliable and valid. Reliability and validity are the characteristics of high-quality measurement and the means to gauge the trustworthiness of a research study (Cant *et al.*, 2005:234). Leedy and Ormrod (2010:28) state that the validity and reliability of the measuring instruments effect the degree to which the researcher can gain knowledge about the phenomenon being studied, the probability that the researcher will achieve statistical significance in the data analysis and the degree to which the researcher can depict noteworthy conclusions from the data. Hence, for survey results to be trustworthy it is imperative for the measures utilised in the survey to be reliable and valid of the characteristics being measured (Cant *et al.*, 2005:234). Struwig and Stead (2010:130) warn that the findings of a research study will be inefficient should the researcher fail in addressing reliability and validity matters.

A measure is reliable when various efforts at measuring something converge on the same outcome (Schiffman *et al*., 2010:58). Remler and Van Ryzin, (2011:118) concur that reliability analysis refers to the consistency of a measure and is directly associated with the concept of random error or noise. Malhotra (2010:318) defines random error as a measurement error that occurs from casual adjustments, or differences in participants or measurement state of affairs. According to McDaniel and Gates (2007:275), reliable scales, gauges and other measurement instruments can be utilised with assurance and with knowledge that impermanent and situational factors are not affecting the measurement process. Cant *et al.* (2005:235) indicate that the reliability of a measurement scale employed in a survey questionnaire, can be evaluated by determining the correlation between scores from different administrations of the scale. Struwig and Stead (2010:130) add that the validity of the scores is reliant on the score's reliability, in view of the fact that if the reliability is insufficient, the validity will also be inadequate. Hence, reliability is a necessary but insufficient condition for validity (Leedy & Ormrod, 2010:29).

Various authors (Malhotra, 2010:318; Maree *et al.*, 2011:215; Remler & Van Ryzin, 2011:121) explain the variety of methods employed for determining reliability, including test-retest reliability, alternative-forms reliability and internal consistency reliability.

- **Test-retest reliability:** The test-retest method of determining reliability is the most common approach employed, and entails administering the same scale or measure to the same participants at two different points in time and under similar conditions, to test for constancy (Zikmund & Babin, 2013:257). Struwig and Stead (2010:131) indicate that the interval between the two tests should not be too short, as the participants may remember the questions, which creates the problem of reactivity or memory effect, resulting in falsely high reliability. Usually, time intervals varying from two to four weeks are employed although any time interval may be used on condition that it can be vindicated. Maree *et al.* (2011:215) state that the results from the first measurement are compared with the results of the second measurement by calculating a correlation coefficient. A coefficient value close to zero indicates that the instrument has low reliability, whereas a value close to one gives an indication that the measuring instrument has high reliability. Test-retest coefficients are inappropriate where the construct is possibly unstable. Various authors (Malhotra, 2010:319; McDaniel & Gates, 2007:275) highlight several problems associated with this method for determining reliability. First, there may be some intricacy to find and gain the assistance of the participants for a subsequent testing. Secondly, the first measurement may amend a participant's response on the second measurement. Finally, the second measurement may change owing to changes in environmental or personal factors influencing the participants. Given the problems highlighted above, Malhotra (2010:319) advises that this method is best applied in combination with other approaches, such as alternative/equivalent forms discussed next.
- **Alternative-forms reliability:** According to Struwig and Stead (2010:132), the drawback of the participant's reactivity or memory effect to responses from the first testing can be avoided by constructing equivalent measurement instruments. In this approach, as stated by Cant *et al.* (2005:235), two measurement scales are administered which are as similar as possible in terms of form, with the intention of measuring the same object and the same participants during different time periods, typically two to four weeks apart. Calculating the two sets of scores of the

alternative-scale forms, by way of a correlation coefficient, presents the degree of alternative-forms reliability of the instrument (Maree *et al.,* 2011:215). Malhotra (2010:319) identified two difficulties with alternative forms reliability. First, it is extremely difficult, perhaps unattainable, to construct two totally equivalent measuring instruments. Secondly, even if similarity can be attained, this technique is found to be time-consuming, a difficult process, and expensive, resulting in this approach being problematic. McDaniel and Gates (2007:277) denote that this method is similar to the test-retest reliability method, with the primary difference being the measuring instrument itself. Test-retest utilises the same instrument, whereas the alternative-forms approach uses a different, but extremely comparable, measuring instrument.

- **Internal consistency reliability:** Malhotra (2010:319) explains internal consistency reliability as an approach for gauging the internal consistency of the set of items when numerous items are summated, with the purpose of forming a total score for the scale. Zikmund and Babin (2013:257) define internal consistency as a representation of a measure's homogeneity, or the degree to which each indicator of the concept converges on a general meaning. There are two separate measurements within the internal consistency method. The first measurement, discussed by Maree *et al.* (2011:216), is called split-half reliability. To acquire a measure of this type of reliability, the items that make up the instrument are split into two, forming two separate instruments. To split the items, normally three methods are used, as given by Struwig and Stead (2010:132). First, the even-numbered items from the one instrument, and the odd-numbered items from the other, secondly, the items are assigned randomly to the two instruments, and finally, the first half of the items from the one instrument, and the second half from the other. Subsequently, the scores of these two separate half instruments are compared by way of a correlation coefficient, with correlations ranging from zero to one. The higher the correlation, the more internally reliable the measuring scale is (Remler & Van Ryzin, 2011:122). However, McDaniel and Gates (2007:278) found this approach problematic, due to the estimate of the coefficient of reliability being completely reliant on how the items were split, resulting in different correlations when, preferably, this should not be the case. Owing to the split-half reliability method being problematic, researchers frequently use the

second more sophisticated, popular, and accurate internal reliability measurement method, namely the Cronbach alpha coefficient. Malhotra (2010:319) states that the Cronbach alpha coefficient is the average of all likely split-half coefficients, resulting from the various alternatives of splitting the scale items. This coefficient fluctuates from zero to one, and a result of less than 0.5 commonly points towards insufficient internal consistency reliability (Nunally, 1978:245; Peterson, 1994:382).

Cant *et al.* (2005:235) state that the analysis of reliability has to be employed prior to the final study to determine if the scale variables are reliable, to ensure consistency. Therefore, the reliability of the research instrument applied in this study was analysed before the final study. The internal consistency reliability approach was employed in determining the reliability of the scale, through the application of the Cronbach alpha coefficient technique. The pilot study, which was performed prior to the final study, ascertained the measuring instrument's consistency as well as the reliability of the items included in the scale. Cronbach's alpha coefficient was also applied in the final study.

3.9.2 Validity analysis

The measuring instrument is deemed valid if it measures what it is intended to measure, as stated in the research objectives set out in the beginning of the research process (Schiffman *et al.*, 2010:58). Malhotra (2010:320) defines the validity of a measuring instrument as the degree to which dissimilarities in observed scale scores reveal actual dissimilarities amid objects on the characteristics being measured, rather than systematic or random error. No measurement error ($X_O = X_T$, $X_R = 0$, $X_S = 0$) is a prerequisite for perfect validity.

Maree *et al.* (2011:218) offer various guidelines for researchers to consider when measuring the validity of a measuring instrument. First, if the measuring instrument is not reliable, it cannot be valid. Secondly, a number of participants may possibly agree or say yes to every single question – this can be prevented by formulating positive and negative items. Thirdly, social desirability, which refers to participants answering in a specific manner that they think is expected, should be considered. Fourthly, item bias should be considered, as several groups systematically score items higher or lower than other groups, due to extraneous factors such as language and cultural dissimilarities, which

occurs frequently due to items having different meanings in different cultures. Furthermore, gender bias also takes place frequently.

Validity of a measuring instrument can be determined from several different perspectives, namely content validity (frequently denoted as face validity), criterion validity, and construct validity (Cant *et al.,* 2005:235; Remler & Van Ryzin, 2011:106; Struwig & Stead, 2010:139; Zikmund & Babin, 2013:258). The subsequent section consists of a brief explanation of each validity method.

- **Content validity:** This type of validity denotes the degree to which the measuring instrument covers the all-embracing content of the specific construct that it is set out to measure (Maree *et al.,* 2011:217). Malhotra (2010:320) states that the content validity of a measuring instrument can be evaluated by professional judgement, in which the item domain of the instrument corresponds with a comprehensive description of the domain of the construct. Zikmund and Babin (2013:258) opine that content validity differs from face validity due to face validity referring to the degree to which the instrument appears or look valid, which cannot be measured or tested. However, it is essential that experts in the particular field, to ascertain a high degree of face validity, evaluate the research instrument. Struwig and Stead (2010:139) point out that neither the theoretical description of constructs, nor the construction of archetypal items, can ever be completed flawlessly. According to Remler and Van Ryzin (2011:107), the measuring of the content validity of a measuring scale analyses if the scale items cover the entire domain. McDaniel and Gates (2007:279) suggest that a more formal assessment of the measuring scale can be acquired by measuring criterion validity, since content validity is subjective in nature and cannot measure the validity of a scale alone. For ascertaining content validity of the scale employed in this study, the above-mentioned steps were followed, including consulting prior research instruments that were obtainable on the subject matter. The pilot study was conducted to ascertain the content validity of the scale. Furthermore, an open-ended question was included for determining whether the instrument had content validity.
- **Criterion validity:** Maree *et al.* (2011:217) opine that criterion validity is conceivably the most important test to determine if the measuring instrument

measures what it is intended to measure. Cant *et al.* (2005:235) define criterion validity as a type of validity that assesses whether the measuring instrument performs as anticipated, with respect to other variables designated as meaningful criteria. Remler and Van Ryzin (2011:109) indicate that commonly, the investigation of the connection between the measure and the criterion is used to establish criterion validity. Criterion variables, as listed by Malhotra (2010:320), may consist of demographic and psychographic characteristics, attitudinal and behavioural actions, or related scores attained from former measurement instruments. McDaniel and Gates (2007:281) indicate that criterion-related validity comprises two sub-categories, namely predictive and concurrent validity. Predictive validity refers to assessing the extent to which a current item on a measurement instrument can be utilised to predict a future criterion variable. Struwig and Stead (2010:140) describe concurrent validity as based on assessing the degree to which a relationship between the measure and the criterion variables exist; however, occurring in the same interval.

- **Construct validity:** Cant *et al.* (2005:236) state that construct validity assesses the degree to which a measure performs within the theoretical context of the topic under study. An assessment of the interconnections between the measure concerned, and measures of former concepts or characteristics, within a theoretical foundation, is used regularly to establish construct validity. Construct validity, according to Struwig and Stead (2010:141), is based on the incorporation of any substantiation that stands on the elucidation or significance of the test scores, including content- and criterion-related evidence, which are consequently considered as part of construct validity. Maree *et al.* (2011:217) explain that the process of construct validity comprises defining the construct and hypothesising its association to other variables. Zikmund and Babin (2013:259) denote that construct validity encompasses of convergent, discriminant and nomological validity. Malhotra (2010:321) distinguishes between convergent and discriminant validity by asserting that convergent validity is the degree to which the measuring instrument correlates with other measures of an identical construct; discriminant validity measures a low level of association found amongst diverse measures, and is not developed to measure the same concept. Nomological validity measures the level of correlation between measures of different but connected constructs, in a

theoretically expected manner (Remler & Van Ryzin, 2011:113). For the purpose of this study, the measuring instrument was assessed by means of construct validity. The construct validity was determined by making use of inter-item correlations, which according to (Clark & Watson, 1995:316) should range from 0.15 to 0.50.

There is a relationship between reliability and validity. Although the deficiency of reliability represents negative substantiation for validity, reliability does not denote validity (Malhotra, 2010:231). An essential prerequisite for validity is a reliable measuring instrument, as an unreliable measuring instrument will fail to produce steady results when measuring an identical occurrence over time (McDaniel & Gates, 2007:278). Cant *et al.* (2005:263) describe the relationship between reliability and validity by means of an example of three situations, as illustrated in Figure 3.4. The first situation indicates errors throughout the target; therefore, there is no consistency and hence, no reliability can be assumed. In the second situation, although the clustered pattern represents consistency, it is far from the middle point, thus depicting a measuring instrument ascertaining a high level of reliability with little variance, and it still lacks validity. In the third situation, high reliability and validity is illustrated, indicating that the researcher has succeeded in the use of a valid measuring instrument, and obtained reliable results.

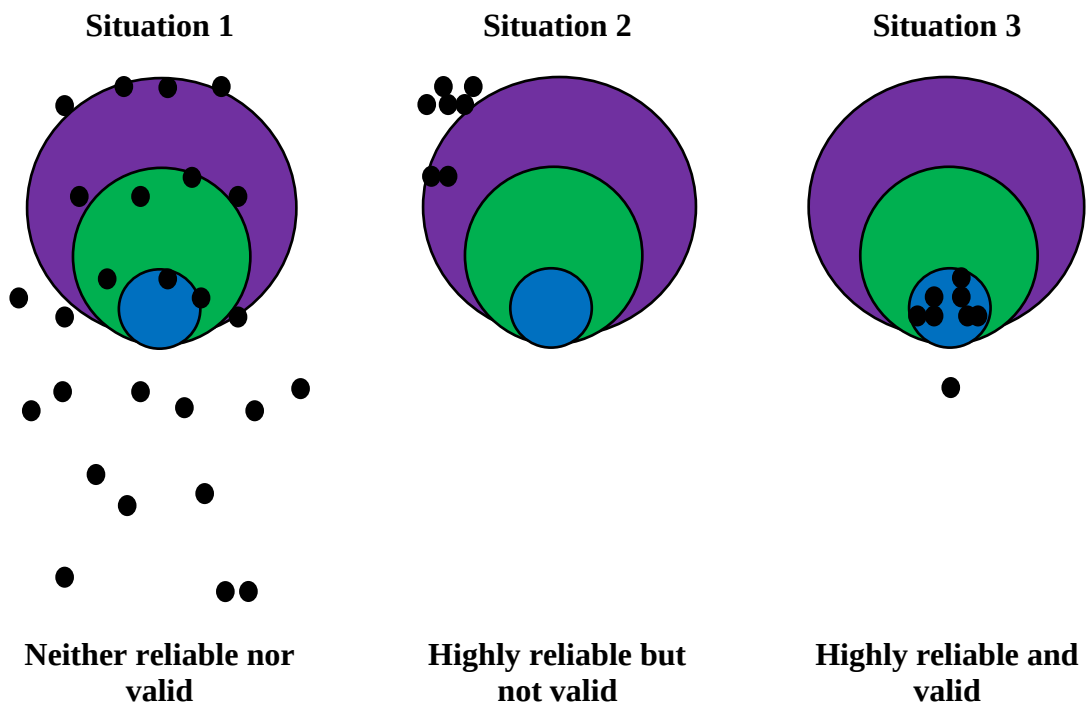


Figure 3.4: Reliability and validity (Source: Zikmund & Babin, 2013:260)

Following the measurement of the measuring instruments' reliability and validity, descriptive analysis was utilised to summarise the captured data. A discussion on the descriptive analysis employed in this study follows.

3.9.3 Descriptive analysis

Descriptive analysis, possibly the most elementary statistical analysis, is the simplifying of data in a manner that designates the basic characteristics such as central tendency, distribution, and variability (Zikmund & Babin, 2013:364). As stated by Kolb (2008:251), descriptive analysis gathers, summarises and presents a data set that enables the researcher to observe patterns in the research data. Struwig and Stead (2010:158) concur by stating that the purpose of descriptive analysis is to present an overall, comprehensible and simple reflection of a large amount of data. Maree *et al.* (2011:183) indicate that the term descriptive statistics is a shared name for a number of statistical methods employed to systematise and articulate data in a meaningful manner. Measures of location, measures of variability, and measures of shape all form part of descriptive statistics (Malhotra, 2010:486) and are the statistical techniques utilised in this study.

3.9.3.1 Measures of location

Measures of location, also referred to as measures of central tendency, refer to the techniques for finding a central point around which the data revolve, or a middle point around which the data concerning a certain variable seem to hover (Leedy & Ormrod, 2010:265). Measures of location comprise three statistical measures, namely arithmetic mean, the mode and the median (Malhotra, 2010:486).

- **Arithmetic mean:** The mean ($\bar{x}$) is the most frequently utilised measure of location and is computed as the arithmetic average of all the data values (Maree *et al.,* 2011:187). As indicated by McDaniel and Gates (2007:461), the mean is calculated appropriately only from interval or ratio (metric) data. It is calculated by totalling the values for all the observations for a specific variable, and dividing the resultant sum by the number of observations. The following formula is presented to calculate the arithmetic mean value:

$$\bar{x} = \frac{\text{total of all the values}}{\text{the number of values}}$$

  This process can also be expressed in the following formula, as given by Remler and Van Ryzin (2011:251):

$$\bar{x} = \frac{1}{n} \sum_{i=1}^{n} x_i$$

  Where x_i = individual observations

  n = sample size

  $\sum$= summation symbol meaning add up

- **Median:** Kolb (2008:254) describes the median, also denoted as Me, as the value in the middle of a set of variables. The median is used in ordinal data, where there is a degree of dissimilarity. Zikmund and Babin (2013:340) simplify this by stating that the median is the 50^{th} percentile. According to Leedy and Ormrod (2010:266), the median cannot be employed when analysing nominal data, since there are only two probable variables, indicating that there cannot be a midpoint. However, Malhotra (2010:486) states that the median is a suitable measure of central tendency for ordinal data. The data have to be ordered ascending or

descending in order to locate the mean (Maree *et al.*, 2011:187). The median is computed using the following formula (Swanepoel *et al.*, 2008:72):

$$\text{Me} = \left(\frac{n+1}{2}\right) - \text{th observation}$$

Where n = sample size

- **Mode:** Struwig and Stead (2010:158) describe the mode (Mo), as the value that occurs most frequently in an ordered array of variables. The mode can be calculated for nominal, ordinal, interval or ratio data (McDaniel & Gates, 2007:462). However, sometimes the mode is an insufficient measure to use for describing the centre of a distribution accurately, which is apparent when there is more than one value that appears frequently. However, the frequency of one value is the highest by only a small margin. Maree *et al.* (2011:187) opine that where there are two or more scores with a similar (highest) frequency, the distribution is referred to as bimodal, denoting two modes, or multimodal, referring to more than two modes.

3.9.3.2 Measures of variability

Measures of variability, also referred to as measures of dispersion, are used to assess the extent to which the data are widely distributed, or how the observations diverge from the mean in the data set (Zikmund & Babin, 2013:340). Four measures of variability regularly employed, include the range, interquartile range, the variance and the standard deviation (Leedy & Ormrod, 2010:271). As stated by Maree *et al.* (2011:188), the amount of variance in a distribution divulges important information, as it articulates the degree to which the values cluster together, or are spread broadly over the range of probable values.

- **Range:** Malhotra (2010:487) describes the range, the simplest dispersion measure, as a measure employed to measure the spread of the data, and is computed using the following formula:

$$\text{Range} = X_{\text{largest}} - X_{\text{smallest}}$$

- **Interquartile range:** According to Maree *et al.* (2011:188), the interquartile range, denoted IQR, is the range of the middle 50 percent of the data. In order to calculate the interquartile range, the third quartile (Q_3) and the second quartile

(Q_2) have to be determined. Consequently, the interquartile range is calculated using the following formula:

$$IQR = Q_3 - Q_1$$

- **Variance:** Struwig and Stead (2010:159) describe the variance, denoted s^2, as the square of the standard deviation. Malhotra (2010:487) indicates that the variance will by no means assume a negative value and the variance is insignificant when the data points are clustered around the mean. The following formula, as given by Zikmund and Babin (2013:342), calculates the variance:

$$S^2 = \frac{\sum(x_i - \bar{x})^2}{n-1}$$

Where x_i = individual observations

n = sample size

$\bar{x}$ = sample mean

$\sum$= summation symbol meaning add up

- **Standard deviation:** The standard deviation, denoted *S*, is the most widely used measure. A representation of how far the values are, on average, from the mean, is given by the standard deviation (Remler & Van Ryzin, 2011:253). Zikmund and Babin (2013:343) present a basic definition by stating that the standard deviation is the square root of the variance for a distribution. McDaniel and Gates (2007:464) present the following formula to determine the standard deviation:

$$S = \sqrt{S^2}$$

Where s^2 = variance

3.9.3.3 Measures of shape

Maree *et al.* (2011:189) state two numerical measures that refer to the shape of a distribution. These measures measure the extent of skewness and kurtosis of the distribution. According to Struwig and Stead (2010:159), skewness refers to the extent of deviation from symmetry. Figure 3.5 illustrates symmetrical distribution, positive skewness and negative skewness

1 – Symmetrical distribution

2 – Positive skewness

3 – Negative skewness

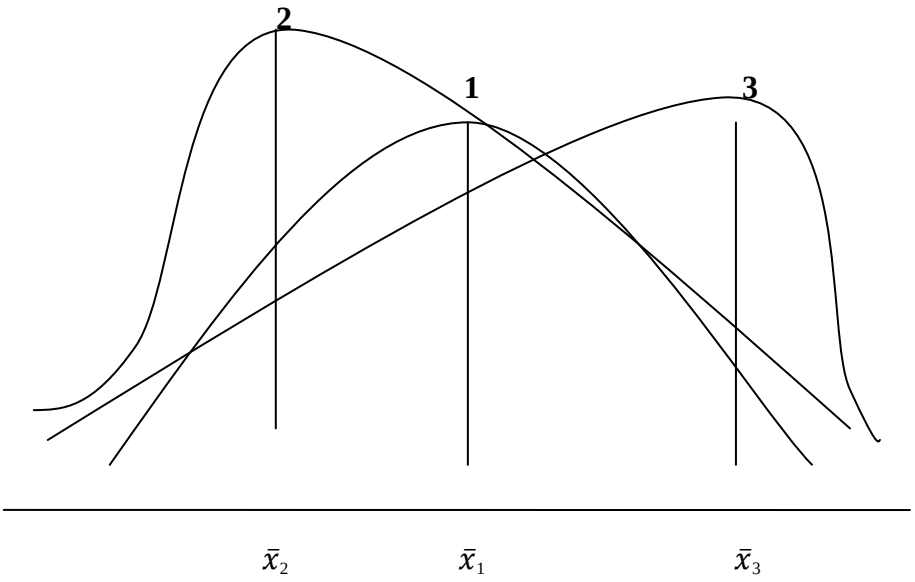


Figure 3.5: Skewness (Source: Maree *et al.*, 2011:190)

Malhotra (2010:488) defines the kurtosis as a measure of the relative peakedness or flatness of the curve as given by the frequency distribution. As indicated by Struwig and Stead (2010:159), a kurtosis has three main classifications, namely a kurtosis that is normally distributed, referred to as mesokurtic, a kurtosis that is peaked, unusually referred to as leptokurtic, and a kurtosis that is unusually flat is generally referred to as platykurtic. Figure 3.6 presents an illustration of these three main classifications.

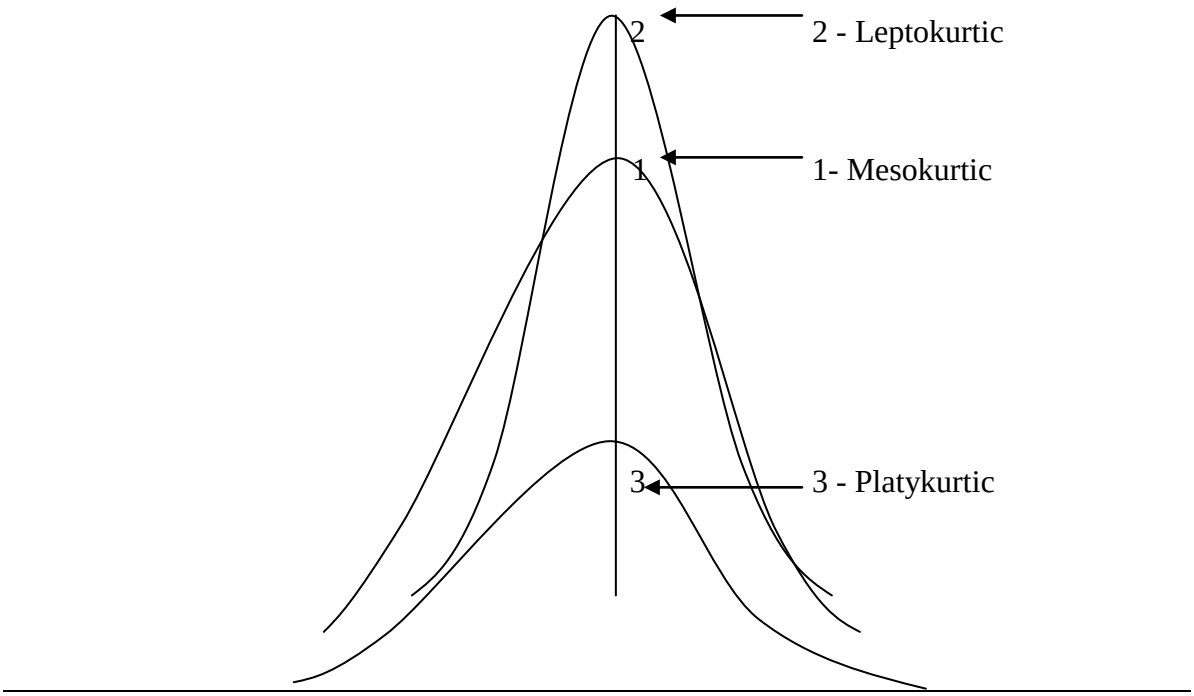


Figure 3.6: Kurtosis (Source: Maree *et al.*, 2011:190)

This study applied descriptive statistics to ascertain the overall pattern and the characteristics of the participants, and to evaluate whether the distribution of the data was normal. More precisely, the descriptive statistics used in this research study comprised measures of the mean, median, standard deviation, skewness and kurtosis.

3.9.4 Significance tests

Malhotra (2010:581) states that significance testing entails testing the significance of the overall regression equation, in addition to particular incomplete regression coefficients. Berndt and Petzer (2011:253) indicate that significance testing is the total risk the researcher is prepared to accept pertaining to the accuracy of the hypothesis being tested. According to Remler and Van Ryzin (2011:273), with significance testing, also known as hypothesis testing, an explicit statement about the population, named a null hypothesis, is formulated for the study. Maree *et al.* (2011:203) state that a null hypothesis (H_0) indicating no variance between different groups, has an opposing alternative hypothesis (H_a), indicating variance between different groups. Owing to both hypotheses which cannot be accepted, it is necessary to compare the test statistic's probability with the specified significance level and, accordingly, make the decision of whether to reject, or

not reject the null hypothesis (Malhotra, 2010:490). Zikmund and Babin (2013:373) comment that significance testing enables the researcher to test whether an idea can be supported by empirical evidence. The statistical test's significance level or p-value is an essential indicator of whether or not a hypothesis can be supported. For this study, 11 hypotheses, set at the conventional five percent levels were formulated. A discussion on the various statistical methods used to test these hypotheses follows.

3.9.4.1 T-tests

According to Maree *et al.* (2011:225), t-tests can be applied for drawing conclusions according to the means of the population under study. Malhotra (2010:504) indicates that the t-statistic accepts that the variable is normally distributed, and that the mean is known. Two types of t-tests can be used in examining the differences between means, namely the independent sample t-test, where the variance between the mean scores obtained from two independent samples included in the target population are tested, and the paired-sample t-test, where the variables between the mean scores obtained by two observations from the same participants are examined (Zikmund & Babin, 2013:394). For the purpose of this study, a one-sample t-test was conducted to determine whether black Generation Y students have statistically significant positive attitudes towards personal financial planning, such as the financial planning process, credit planning, insurance planning, investment planning and estate planning, and perceive themselves as being skilled in personal financial management. In addition, a paired-sample t-test was carried out to determine whether there were any statistically significant differences between the participants' financial literacy, such as general financial knowledge, saving, spending and debt.

3.9.4.2 Cohen's D-statistic

In addition to the determining the statistical significant difference between means, by means of the t-tests, Cohen's D-statistic is employed to examine whether the difference is practically significant by estimating the effect size. Guidelines as suggested by Pallant (2007:208) for interpreting this effect size are as follows:

- $0.20 \leq d < 0.50$: signifies a small, practically non-significant effect
- $0.50 \leq d < 0.80$: signifies a medium-sized effect moving towards practical significance

- $0.80 \leq$ d: signifies is a large effect that has reached practically significance.

3.9.4.3 Analysis of variance (ANOVA)

Analysis of variance, universally known as ANOVA, is a statistical technique used to explore differences among means for more than two independent samples (McDaniel & Gates, 2007:502). More specifically, ANOVA tests whether the groups have different mean scores (Maree *et al.*, 2011:229). ANOVA employs two important values, namely the test statistic, which is the *F*-value and the *p*-value, to identify significant differences (Remler & Van Ryzin, 2011:307). Two different types of ANOVA are identified, namely the one-way ANOVA, where only one factor is involved, and two-way ANOVA, where two or more factors are involved (Malhotra, 2010:531). For the purpose of this study, one-way ANOVA was carried out to determine whether there were any statistically significant differences between the participants' attitudes towards personal financial planning, their financial literacy, and their perceived personal financial management skills and different demographic profiles.

3.9.4.4 Correlation analysis

The statistical process used to determine whether two variables are associated is referred to as correlation (Leedy & Ormrod, 2010:273).The purpose of correlation analysis is to measure the strength and direction of a relationship between two quantitative variables (Remler & Van Ryzin, 2011:261). Various correlation measures can be utilised, and include Spearman's rho, Point-biserial correlation coefficient, Phi coefficient and the most commonly applied correlation coefficient, the Pearson's product-moment correlation coefficient, denoted *r*, originally proposed by Karl Pearson (Struwig and Stead, 2010:140). The Pearson correlation coefficient is suitable for use with metric data and ranges from -1, denoting a perfect negative correlation, to +1, indicating a perfect positive correlation. Moreover, if *r* equals zero, no relationship between the two variables are noted (McDaniel & Gates, 2007:530). Figure 3.7 illustrates scatterplots and corresponding correlation coefficients. This study applied correlation analysis to determine the relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy, and their perceived personal financial management skills.

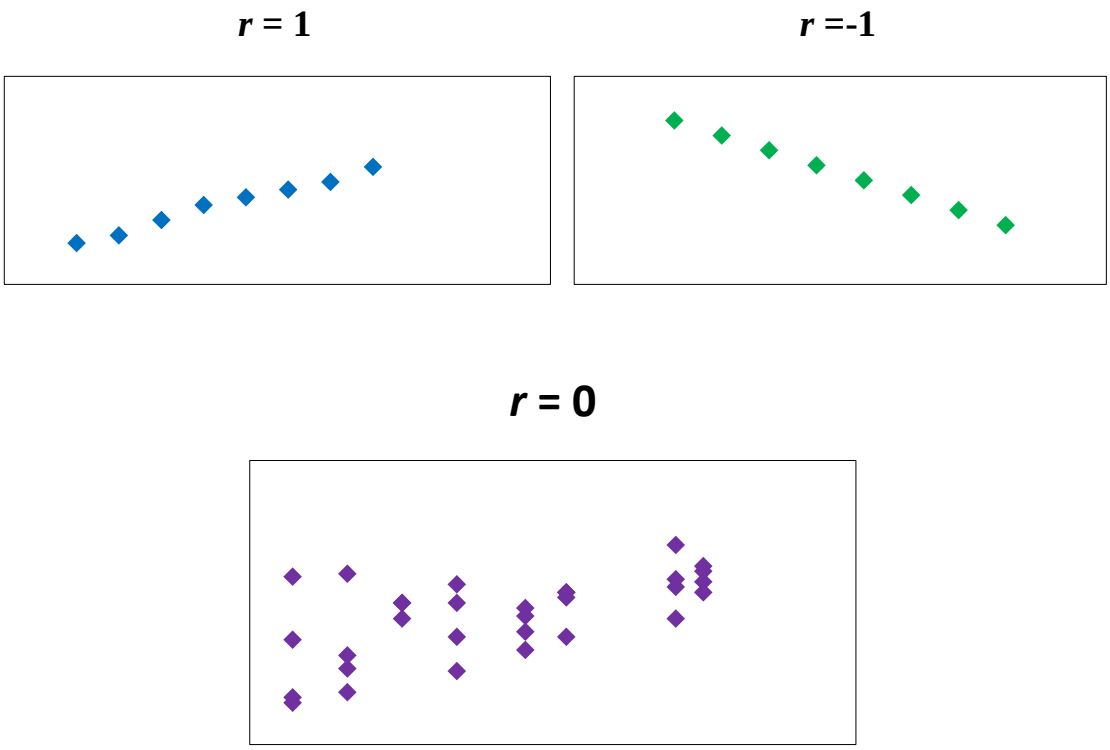


Figure 3.7: Scatterplots: correlation coefficients (Source: Berndt & Petzer, 2011:240)

3.10 SYNOPSIS

This chapter explored the research methodology applied for the empirical portion of this study. Specific reference was given to the research design, research approach, sampling strategy, data collection method, pre-testing of the questionnaire, administration of the questionnaire, data preparation and statistical analysis.

In the succeeding chapter, Chapter 4, the research methodology applied in this chapter will be executed and delineated. In Chapter 4, the research finding pertaining to the empirical portion of this study will be reported on, including the results of the pilot study and main survey, which gives direction for a preliminary data analysis to be performed in the form of tabulation and coding allowing for the interpretation and discussion of useful data. Chapter 4 lays the underpinning from which conclusions will be drawn and recommendations made in the final chapter of this research study, Chapter 5.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF EMPIRICAL FINDINGS

"What we see depends mainly on what we look for."

— Sir John Lubbock

4.1 INTRODUCTION

This chapter provides an analysis and interpretation of the empirical study. Section 4.2 reports on the results obtained during the pilot test. Subsequently, Section 4.3 highlights the preliminary data analysis, including the coding and tabulation of the data. In Section 4.4 of this chapter, a report on the descriptive analysis of the data sets, together with the demographical information of the participants and the reliability and validity of the scale is given. Finally, Section 4.5 provides a discussion on the various inferential statistics applied in this study.

For the purpose of this study, the data were analysed using SPSS Version 21 for Microsoft Windows, and included the pilot testing of the questionnaire, and a data analysis of the main survey's data sets. The following section outlines the data analysis procedures involved in the pilot testing.

4.2 RESULTS OF THE PILOT TEST

Before conducting the pilot study, the questionnaire was pre-tested. A pre-test was conducted to ascertain the questionnaire's face and content validity by allowing two pertinent field researchers to scrutinise the questionnaire with the aim of identifying any apparent erroneous areas or possible problems. The results obtained from the pre-test were used to refine the questionnaire. The refined questionnaire consisted of 30 Likert-scaled items for the financial planning scale, 18 multiple-choice questions for the financial literacy scale, and ten Likert-scaled items for the perceived financial management skills scale. Once the pre-test was completed, the questionnaire was subject to pilot testing, which asserts the reliability of the scales used in the measuring instrument. Hence, the pilot testing of the questionnaire was conducted on a convenience sample of 39 full-time undergraduate students at a HEI campus that did not form part of the sampling frame of the main study.

The Cronbach alpha coefficient, the measure used to determine the reliability of the questionnaire applied in the study and the inter-item correlation, was computed for Scale B, pertaining to participants' attitudes towards personal financial planning and for Scale D, pertaining to participants perceived personal financial management skills. The financial planning six-point scale (30 items) returned a Cronbach alpha value of 0.699 and the financial management skills measuring six-point scale (10 items) returned a Cronbach alpha value of 0.883, which is above the recommended level of 0.60 (Malhotra, 2012:319). The average inter-item correlation of 0.072 for the financial planning scale (30 items) falls slightly outside the recommended inter-item range of 0.15 and 0.50, as recommended by Clark and Watson (1995:316), possibly due to this scale measuring constructs pertaining to different financial planning issues. Therefore, a decision was made to include this scale owing to the value it adds to the study. The average inter-item correlation for the personal financial management skills measuring scale (10 items) of 0.445 falls within the recommended range. In the financial literacy scale (C1-C18), the participants scored an average result of above the 50 percent level.

After the questionnaire was subject to pre-testing and pilot testing these 30 items from the financial planning scale (Scale B), including 18 items from the financial literacy scale (Scale C) and 10 items from the financial management skills scale were then used to prepare the main survey questionnaire, which was administered to a larger sample size. Table 4.1 provides an overview of the descriptions of these variables and constructs included in the respective sections of the final questionnaire (refer to Annexure B).

Table 4.1: Description of variables and constructs

Code	Variables	Construct
Scale B: Attitudes towards personal financial planning		
B1	Know what personal financial planning is	Construct B1– Financial planning process
B2	Set personal financial goals and objectives	
B3	Gather relevant data and analyse current financial position before making a financial decision	
B4	Implement a personal financial plan with the help of experts	
B5	Review the financial plan regularly to take into account changing needs and circumstances	

Table 4.1: Description of variables and constructs (continued…)

Code	Variables	Construct
Scale B: Attitudes towards personal financial planning		
B6	Credit card convenience	Construct B2 – Credit planning
B7	Pay off full outstanding amount on accounts every month	
B8	Pay all accounts on time each month	
B9	Avoid maxing out or going over the limit on accounts	
B10	Convenience of personal loans	
B11	List needs for life insurance	Construct B3 – Insurance planning
B12	Comparison shopping for life insurance	
B13	Plan to have enough life insurance	
B14	Life insurance is the most important type of insurance	
B15	Distinguish the different types of insurance policies	
B16	Importance of investing	Construct B4 – Investment planning
B17	Investment plan for reaching financial goals	
B18	Consider the opinion of friends and/or family before investing	
B19	Understand risk profile	
B20	Invest in different investment instruments with minimal knowledge and research	
B21	Compound interest encourages investing	
B22	Knowledge to invest	
B23	Study alternative carefully before investing	
B24	General understanding of the amount of money required to retire comfortably	Construct B5 – Retirement planning
B25	Started retirement planning	
B26	Importance of consulting a professional financial planner when planning retirement	
B27	Importance of having a will	Construct B6 – Estate planning
B28	Importance of estate planning	
B29	Importance of setting up a family trust as part of estate planning	
B30	Having estate planning will give peace of mind when passing away	

Table 4.1: Description of variables and constructs (continued…)

Code	Variables	Construct
Scale C: Financial literacy		
C1	Question 1	Construct C1– General financial knowledge
C2	Question 2	
C3	Question 3	
C4	Question 4	
C5	Question 5	
C6	Question 6	
C7	Question 7	
C8	Question 8	
C9	Question 9	
C10	Question 10	Construct C2 – Saving
C11	Question 11	
C12	Question 12	
C13	Question 13	
C14	Question 14	Construct C3 – Spending
C15	Question 15	
C16	Question 16	
C17	Question 17	Construct C4 – Debt
C18	Question 18	
Scale D: Personal financial management skills		
D1	Skilled at managing daily expenses	Construct D1– Personal financial management skills
D2	Skilled at managing credit/debt	
D3	Skilled at managing finances to provide for future needs	
D4	Time management skills	
D5	Stress management skills	
D6	Skilled at managing savings	
D7	Negotiating skills	
D8	Decision making skills	
D9	Problem solving skills	
D10	Skilled at career planning	

4.3 PRELIMINARY DATA ANALYSIS

Before analysing the data, a preliminary data analysis, as recommended by Kolb (2008:199), was conducted on the data set by using coding, data gathering and tabulation. Therefore, the next three sections provide an overview of the coding, data gathering process and tabulation employed in this study.

4.3.1 Coding

Struwig and Stead (2010:169) explain coding as the process of grouping information into themes by using codes. Furthermore, codes are labels that ascribe units of meaning to the information obtained. For the purpose of this study, the questionnaire was divided into four sections, namely Section A, Section B, Section C and Section D. Section A comprises nine questions relating to gathering the demographic data of the participants. Section B contains 30 items with the purpose of obtaining information relating to the participants' attitude towards personal financial planning. Section C consists of 18 questions, aimed at obtaining information to determine the participants' financial literacy level. The final section, Section D, consists of 10 items with the purpose of gathering data relating to the participants' perceived personal financial management skills. The variables and codes used in the various sections of the main measuring instrument are presented in Table 4.2.

Table 4.2: Coding information

Question	Code	Variable	Value assigned to responses
Section A: Demographical data			
Question 1	A1	Name of institution	A (1); B (2)
Question 2	A2	Province of origin	Eastern Cape (1); Free state (2); Gauteng (3); KwaZulu-Natal (4); Limpopo (5); Mpumalanga (6); Northern Cape (7); North West (8); Western Cape (9); Other (10)
Question 3	A3	Year of study	1st (1); 2nd (2); 3rd (3); Post-graduate(4)
Question 4	A4	Degree/Diploma	
Question 5	A5	Gender	Male (1); Female (2)

Table 4.2: Coding information (continued...)

Question	Code	Variable	Value assigned to responses
Section A: Demographical data			
Question 6	A6	Ethnicity	Black African (1); Coloured (2); Indian/Asian (3); White (4); Other (5)
Question 7	A7	Language	Afrikaans (1); English (2); IsiNdebele (3); IsiXhosa (4); IsiZulu (5); Sesotho sa Leboa (6); Sesotho (7); Setswana (8); SiSwati (9); Tshivenda (10); Xitsonga (11); Other (12)
Question 8	A8	Age	<18 (1); 18 (2); 19 (3); 20 (4); 21 (5); 22 (6); 23 (7); 24 (8); 25 (9); 25> (10)
Question 9	A9	Source of income	Parents/Guardians (1); Sponsor/Corporate (2); Government (3); Other (4)
Item	**Code**	**Construct**	**Value assigned to responses**
Section B: Personal financial planning			
Item 1	B1	Construct B1: Financial planning process	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
Item 2	B2		
Item 3	B3		
Item 4	B4		
Item 5	B5		
Item 6	B6	Construct B2: Credit planning	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
Item 7	B7		
Item 8	B8		
Item 9	B9		
Item 10	B10		
Section B: Personal financial planning			
Item 11	B11	Construct B3: Insurance planning	Strongly disagree (1); Disagree (2); Slightly disagree (3); Slightly agree (4); Agree (5); Strongly agree (6)
Item 12	B12		
Item 13	B13		
Item 14	B14		
Item 15	B15		

Table 4.2: Coding information (continued...)

Item	Code	Construct	Value assigned to responses
Section B: Personal financial planning			
Item 16	B16	Construct B4:	Strongly disagree (1)
Item 17	B17	Investment planning	Disagree (2)
Item 18	B18		Slightly disagree (3)
Item 19	B19		Slightly agree (4)
Item 20	B20		Agree (5)
Item 21	B21		Strongly agree (6)
Item 22	B22		
Item 23	B23		
Item 24	B24	Construct B5:	Strongly disagree (1)
Item 25	B25	Retirement planning	Disagree (2)
Item 26	B26		Slightly disagree (3)
			Slightly agree (4)
			Agree (5)
			Strongly agree (6)
Item 27	B27	Construct B6:	Strongly disagree (1)
Item 28	B28	Estate planning	Disagree (2)
Item 29	B29		Slightly disagree (3)
Item 30	B30		Slightly agree (4)
			Agree (5)
			Strongly agree (6)
Section C: Financial literacy			
Question 1	C1	Construct C1:	a (1); b (2); c (3); d (4)
Question 2	C2	General financial knowledge	
Question 3	C3		
Question 4	C4		

Table 4.2: Coding information (continued...)

Item	Code	Construct	Value assigned to responses
Section C: Financial literacy			
Question 5	C5	Construct C1:	a (1); b (2); c (3); d (4)
Question 6	C6	General financial knowledge	
Question 7	C7		
Question 8	C8		
Question 9	C9		
Question 10	C10	Construct C2:	a (1); b (2); c (3); d (4)
Question 11	C11	Saving	
Question 12	C12		
Question 13	C13		
Question 14	C14	Construct C3:	a (1); b (2); c (3); d (4)
Question 15	C15	Spending	
Question 16	C16		
Question 17	C17	Construct C4:	a (1); b (2); c (3); d (4)
Question 18	C18	Debt	
Section D: Personal financial management skills			
Item 1	D1	Construct D1:	Strongly disagree (1)
Item 2	D2	Personal financial management skills	Disagree (2)
Item 3	D3		Slightly disagree (3)
Item 4	D4		Slightly agree (4)
Item 5	D5		Agree (5)
Item 6	D6		Strongly agree (6)
Item 7	D7		
Item 8	D8		
Item 9	D9		
Item 10	D10		

4.3.2 Data gathering process

In accordance with the sampling plan formulated in Chapter 3 (refer to Section 3.5), once permission was obtained from lecturers to distribute the questionnaire, 500 self-administered questionnaires were delivered by hand to the participating lecturers at the two selected HEI campuses. The two selected HEI campus lecturers were allotted 250 hand-delivered self-administered questionnaires; they distributed the questionnaire to students, either during class time or after class. The final questionnaire comprised 68 items, as outlined in Chapter 3. The first section, Section A, obtained the participants' demographical information and consisted of nine items. The second section, Section B, determined the participants' attitudes towards financial planning and consisted of 30 items. The third section, Section C, determined the participants' financial literacy and consisted of 18 items. The fourth section, Section D, determined the participants' perceptions towards their personal financial management skills and consisted of 10 items. In addition, a closed-ended question was included at the end of Section D, requesting participants to indicate their preferred method of media for receiving information pertaining to personal financial management from the university, such as through the university Website, lectures, workshops and the financial centre. Participants also had the option of indicating that they would not want to receive any information. The aim and purpose of the research study were explained in the cover letter, which formed part of the six-page questionnaire. Participants completed the questionnaires on a voluntary basis, as explained in the cover letter.

The 500 questionnaires administered, delivered 426 completed questionnaires, which equals an 85 percent response rate. Any incomplete questionnaires or questionnaires completed by students falling outside the specified 18 to 24 year range or by non-black students were discarded. This left 385 viable questionnaires, which translates into an actual response rate of 77 percent. A discussion on the tabulation of the data obtained by this questionnaire follows.

4.3.3 Tabulation of variables

Data are tabulated following the coding process. According to Zikmund and Babin (2013:365), tabulation involves arranging the data in an orderly fashion by making use of a summary format such as a table that depicts the number of responses to each response

category. Table 4.3 presents the frequencies obtained from the total sample of black Generation Y students for Section B of the questionnaire, which aimed at measuring students' attitudes towards personal financial planning (B1-B30).

Table 4.3: Frequency table of responses: personal financial planning

Scale B: Personal financial planning						
Code	**Strongly disagree**	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly agree**
	1	**2**	**3**	**4**	**5**	**6**
Construct B1: Financial planning process						
B1	7	11	18	89	172	88
B2	8	31	36	90	132	88
B3	18	48	45	69	124	81
B4	126	105	51	56	40	7
B5	31	62	55	86	110	41
Construct B2: Credit planning						
B6	95	62	38	53	68	69
B7	52	47	37	65	111	73
B8	37	34	52	77	103	82
B9	22	30	30	64	112	127
B10	153	81	39	43	47	22
Construct B3: Insurance planning						
B11	52	45	68	83	92	45
B12	55	55	69	101	73	32
B13	23	37	25	25	110	165
B14	14	19	16	50	113	173
B15	14	32	41	92	124	82

Table 4.3: Frequency table of responses: Personal financial planning (continued…)

Scale B: Personal financial planning						
Code	**Strongly disagree**	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly agree**
	1	**2**	**3**	**4**	**5**	**6**
Construct B4: Investment planning						
B16	4	10	6	19	77	269
B17	31	41	49	84	92	88
B18	46	40	38	81	117	63
B19	19	20	36	81	149	80
B20	34	50	42	70	91	98
B21	16	24	35	105	124	81
B22	15	14	31	87	107	131
B23	3	7	15	49	131	180
Construct B5: Retirement planning						
B24	25	36	39	111	97	77
B25	165	85	47	42	32	14
B26	9	9	21	40	133	173
Construct B6: Estate planning						
B27	5	10	14	32	99	225
B28	7	10	12	43	122	191
B29	5	8	15	60	134	163
B30	10	11	12	57	131	164

Table 4.4 presents the frequencies obtained from the total sample for Section C of the questionnaire, which aimed at measuring black Generation Y students' financial literacy (C1-C18).

Table 4.4: Frequency table of responses: Financial literacy

Scale C: Financial literacy				
Code	**a**	**b**	**c**	**d**
	1	**2**	**3**	**4**
Construct C1: General financial knowledge				
C1	149	73	33	**80***
C2	135	23	**170***	53
C3	**361***	10	6	3
C4	44	**321***	13	5
C5	37	**140***	193	12
C6	25	135	**211***	11
C7	16	144	43	**179***
C8	135	**211***	22	14
C9	**234***	80	46	24
Construct C2: Saving				
C10	19	23	30	**312***
C11	**170***	60	67	85
C12	46	**103***	76	151
C13	44	70	**161***	109
Construct C3: Spending				
C14	**134***	61	123	65
C15	133	90	73	**83***
C16	**203***	63	31	87
Construct C4: Debt				
C17	32	60	**251***	38
C18	130	87	30	**134***
The correct answer is indicated by an asterisk * and in bold				

Table 4.5 presents the frequencies obtained from the total sample for Section D of the questionnaire, which aimed at measuring black Generation Y students' perceived financial management skills (D1-D10).

Table 4.5: Frequency table of responses: personal financial management skills

Scale D: Personal financial management skills

Code	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
	1	**2**	**3**	**4**	**5**	**6**
D1	8	29	21	83	154	90
D2	13	30	40	86	128	88
D3	10	18	52	97	130	78
D4	19	21	53	98	122	72
D5	21	29	58	113	106	58
D6	5	10	40	128	125	77
D7	4	10	29	93	153	96
D8	4	8	11	89	171	102
D9	2	3	20	103	158	99
D10	3	6	34	84	153	103

The next section, Section 4.4 provides a summary of the descriptive statistics calculated for this study.

4.4 DESCRIPTIVE ANALYSIS

According to Struwig and Stead (2010:158), descriptive statistics provide statistical summaries of the data set. The purpose of these statistics is to present an overall, coherent and basic depiction of a large amount of data. Maree *et al*. (2011:19) state that the descriptive analysis includes measures of location or centrality, dispersion or variability and shape. The descriptive statistics of this study, with the representing data obtained from the main survey questionnaire, are set out below. The section begins with a report on the demographical information of the total sample as well as the validity and reliability of the scales used in the main study. Furthermore, a discussion regarding the descriptive statistics employed in this study, by using the data gathered from the main survey of this study, and a discussion regarding the participants' attitudes towards personal financial planning, the participants' financial literacy level, including their perceived personal financial management skills.

4.4.1 Demographical information

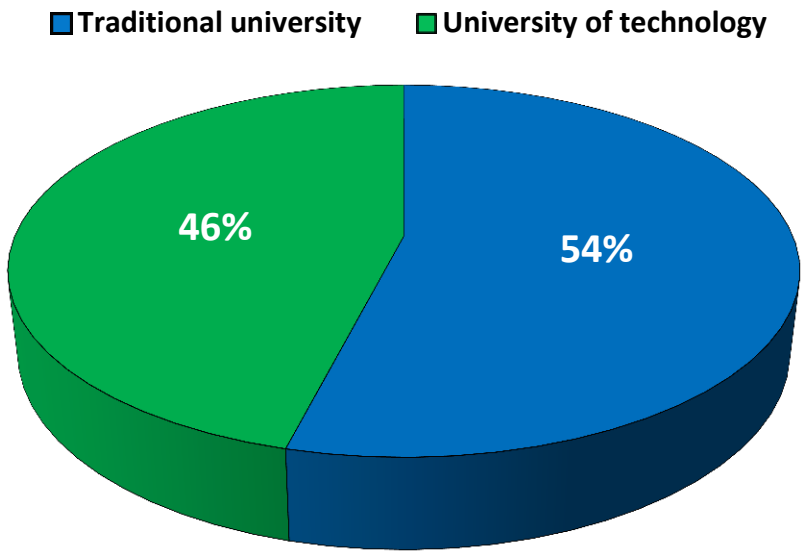
As indicated in Section 4.1 of this chapter, Section A of the final measuring instrument is designed to gather demographical information from the participants. According to Malhotra (2010:350), demographical information consists of socioeconomic and demographic characteristics, which are used to classify the participants and understand the results. Throughout this section, frequency tables, bar graphs and pie charts were utilised to present this information. The sample comprised 385 undergraduate students in the Gauteng province of South Africa. The demographical information requested include amongst others:

- higher education institution
- province of origin
- year of study
- degree/diploma
- gender
- mother tongue language
- age
- primary source of income

Table 4.6 presents a summary of the distribution of the participants between the two institutions.

Table 4.6: Higher education institution

	Frequency *f*	Percentage %
Traditional university	208	54.0
University of technology	177	46.0
Total sample (N)	385	100.0



The participants included in this study comprised one sample group made up of participants from two HEIs, namely a traditional university and a university of technology. By making use of a frequency table and pie chart, Table 4.6 presents the classification information of the total sample (N) of 385 undergraduate students. As illustrated in Table 4.6, there are more participants from a traditional university (54%) than from a university of technology (46%) in the sample.

Table 4.7: Province of origin

	Frequency *f*	Percentage %
Eastern Cape	10	2.6
Free State	27	7.0
Gauteng	232	60.3
KwaZulu-Natal	8	2.1
Limpopo	54	14.0
Mpumalanga	21	5.5
Northern Cape	3	0.8
North West	27	7.0
Missing	3	0.8
Total sample (N)	385	100.0

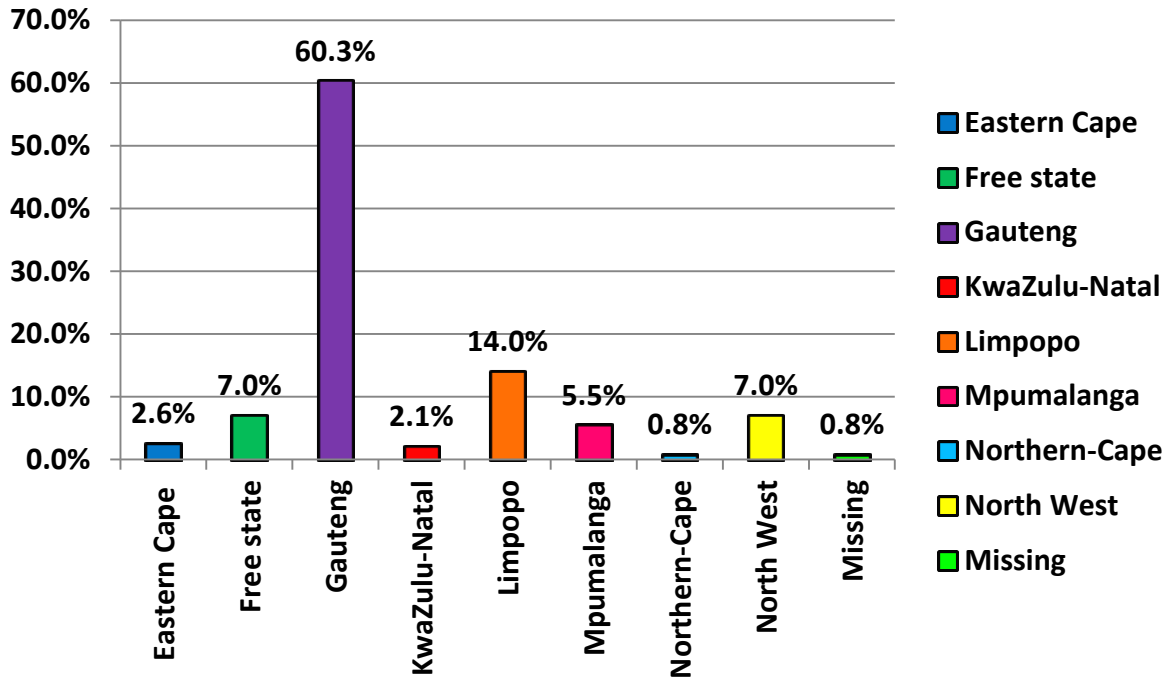


Table 4.7 represents the participants' province of origin. It is evident from the table that the majority of the participants originate from the Gauteng province, representing 60.3 percent of the sample. The Limpopo province represented 14.0 percent, the Free State and North West provinces both represented 7.0 percent and Mpumalanga represented 5.5 percent. The Eastern Cape, KwaZulu-Natal and the Northern Cape represented 2.6, 2.1

and 0.8 percent of the sample respectively. Three participants failed to answer this question, resulting in a missing 0.8 percent of the responses.

Table 4.8: Current year of study

	Frequency ***f***	**Percentage** **%**
1st year	161	41.8
2nd year	94	24.4
3rd year	130	33.8
Total sample (N)	385	100.0

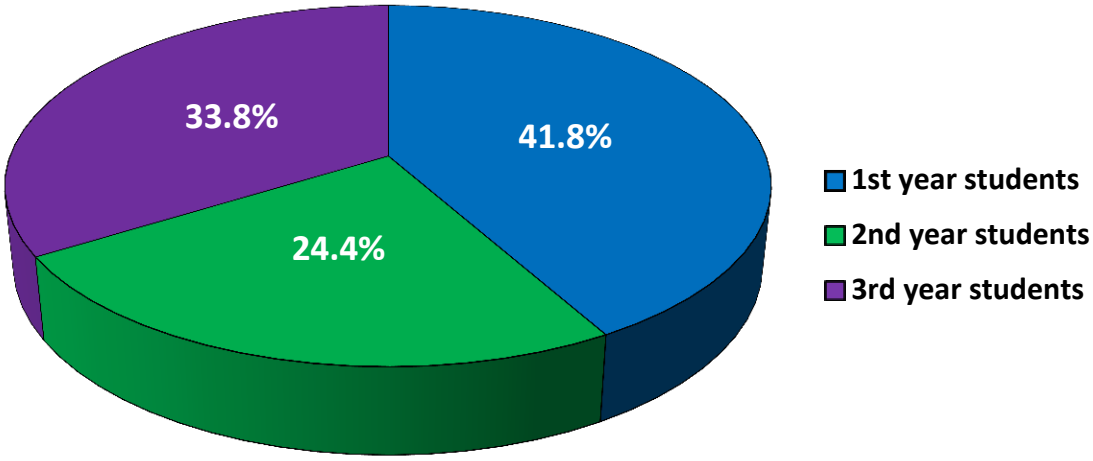


Table 4.8 indicates the participants' current year of study, where the majority of the participants (41.8%) were first year students, 33.8 percent third year students and 24.4 percent second year students. The subsequent table provides an overview of the sample's field of study.

Table 4.9: Field of study

	Frequency *f*	Percentage %
BCom	92	23.9
BSc	35	9.1
BA	67	17.4
Degree	10	2.6
Diploma	172	44.7
Missing	9	2.3
Total sample (N)	385	100.0

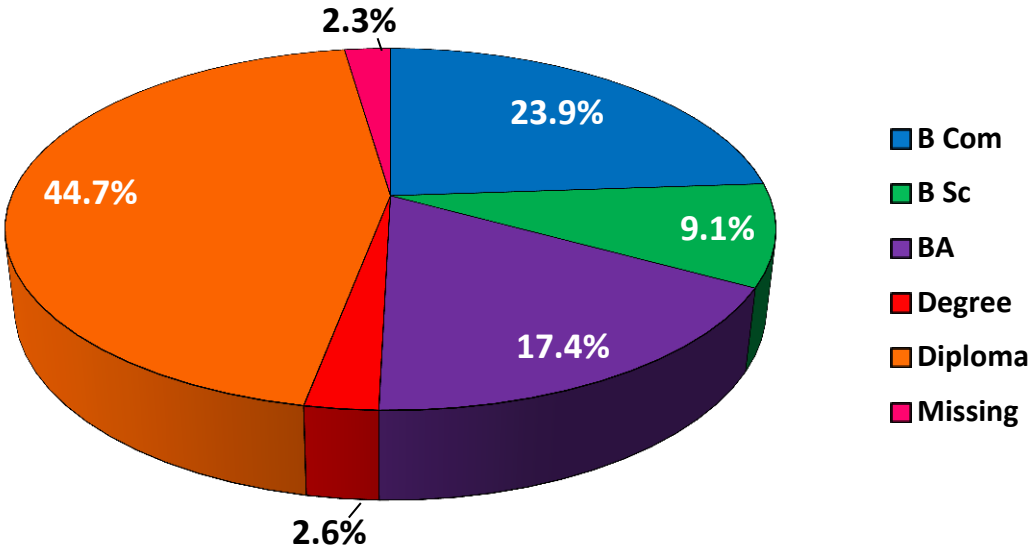


Table 4.9 provides an outline of the participants' field of study. The majority (53%) of the participants indicated studying towards a degree such as a BCom, BSc, or a BA, followed by 44.7 percent studying towards a diploma. This corresponds with the data pertaining to the participants' higher education institution, indicating that the majority (54%) were from a traditional university and 46 percent from a university of technology. Participants studying towards a BCom degree represented 23.9 percent of the sample, those studying towards a BA degree represented 17.4 percent of the sample and those studying towards a BSc degree represented 9.1 percent of the sample. The participants studying towards a degree (not specified) represented 2.6 percent of the total sample and did not specify the

type of degree. The 2.3 percent represent the missing category, where participants failed to answer this question.

Table 4.10: Gender profile

	Frequency *f*	**Percentage** %
Male	144	37.4
Female	241	62.6
Total sample (N)	385	100.0

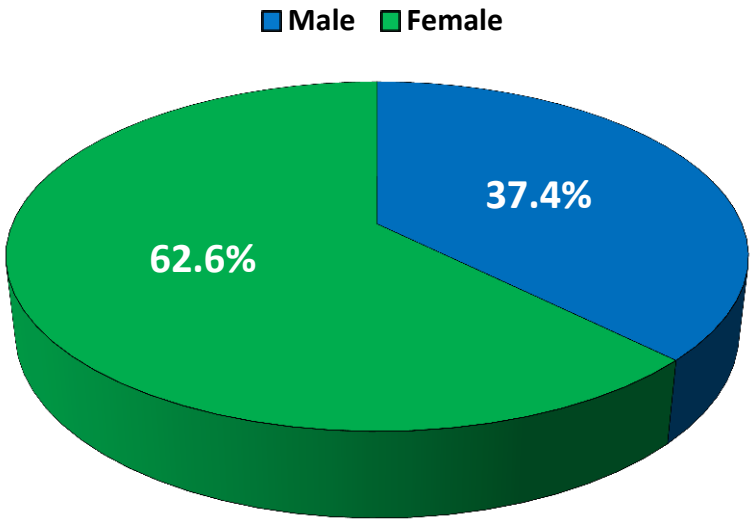


Table 4.10 exhibits the demographical information pertaining to the participants' gender. The gender differences of the sample suggest that there are more female (62.6%) than male (37.4%) participants in the sample, consequently indicating that the majority of the participants were females. In the succeeding table, a summary on the participants' mother tongue languages are illustrated.

Table 4.11: Mother tongue language

	Frequency *f*	Percentage %
Afrikaans	6	1.6
English	7	1.8
IsiNdebele	3	0.8
IsiXhosa	35	9.1
IsiZulu	53	13.8
Sesotho sa Leboa	39	10.1
Sesotho	123	31.9
Setswana	52	13.5
SiSwati	13	3.4
Tshivenda	19	4.9
Xitsonga	33	8.6
Other	1	0.3
Missing	1	0.3
Total sample (N)	385	100.0

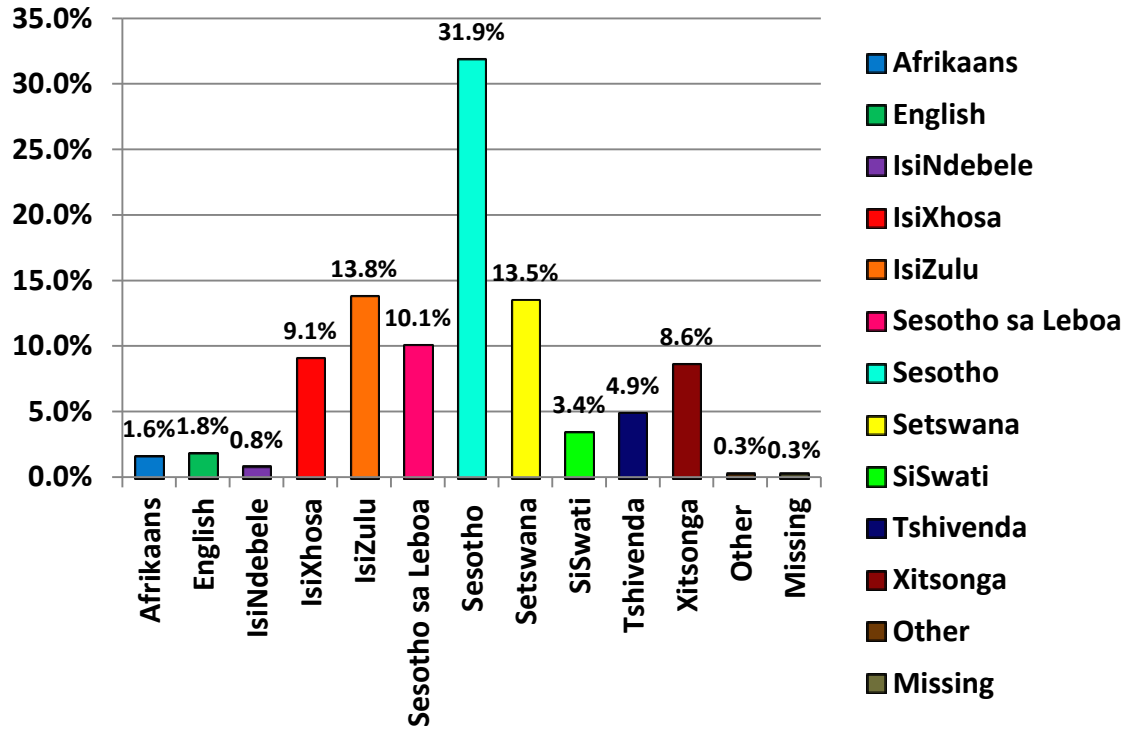
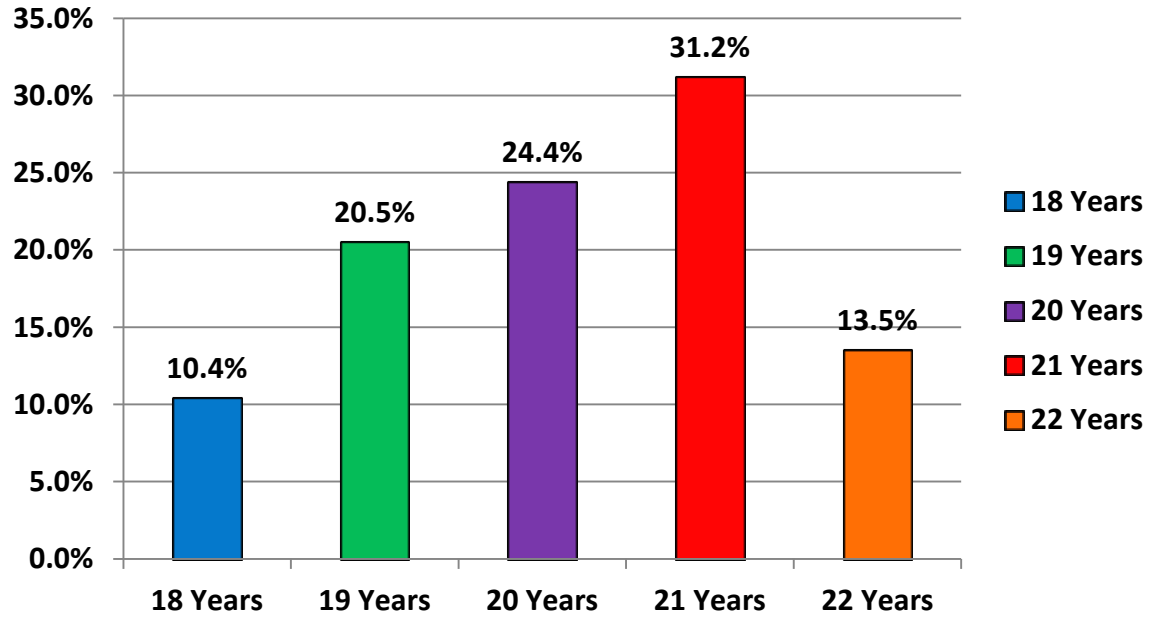


Table 4.11 provides a summary of the responses obtained pertaining to the participants' mother tongue language. The majority (31.9%) of the participants were Sesotho speaking, followed by IsiZulu speaking (13.8%), Setswana speaking (13.5%), Sesotho sa Leboa

speaking (10.1%) and IsiXhosa speaking (9.1%). Of the remaining participants, 8.6 percent were Xitsonga speaking, 4.9 percent Tshivenda speaking, 3.4 percent SiSwati speaking, 1.8 percent English speaking, 1.6 percent Afrikaans speaking and 0.8 percent IsiNdebele speaking. One participant, which represents 0.3 percent of the total sample, indicated speaking another language and specified this language as Sepedi. The 0.3 percent represents the missing category, where one participant failed to answer the question.

Table 4.12: Age

	Frequency *f*	**Percentage** %
18 Years	40	10.4
19 Years	79	20.5
20 Years	94	24.4
21 Years	120	31.2
22 Years	52	13.5
Total sample (N)	385	100.0

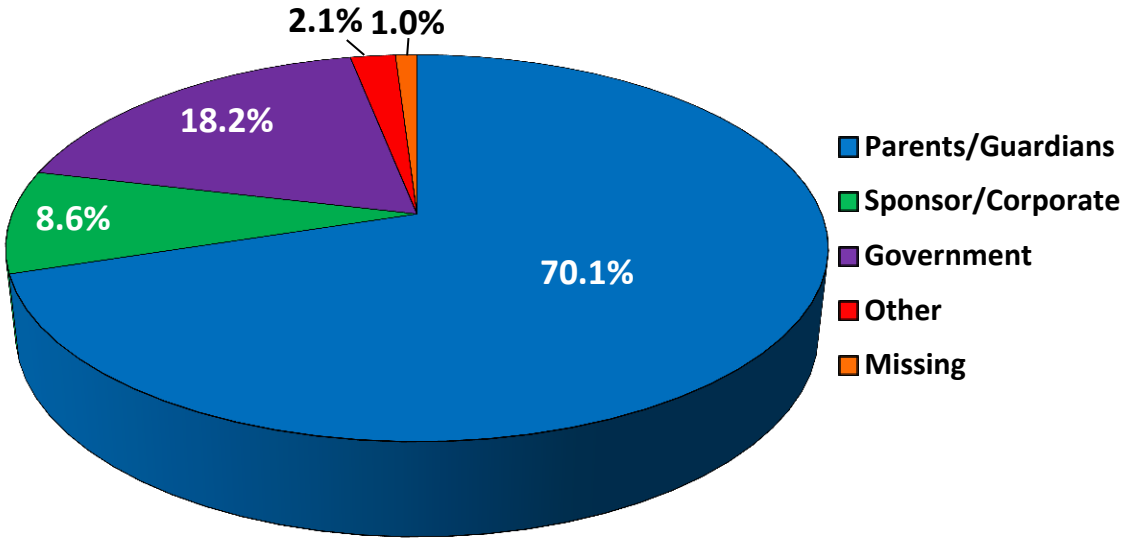


As in accordance with the defined target population defined as students between 18 and 24 years old, age was used in this study as a screening question (refer to Section 3.4.1), and as can be seen in Table 4.12, all the participants qualified to participate in the study. The majority of the participants indicated being 21 years of age (31.2%), followed by

those who indicated being 20 years of age (24.4%). Of the remaining participants, 20.5 percent were 19 years of age, 13.5 percent 22 years of age and 10.4 percent 18 years of age.

Table 4.13: Primary source of income

	Frequency ***f***	**Percentage** **%**
Parents/Guardians	270	70.1
Sponsor/Corporate	33	8.6
Government	70	18.2
Other	8	2.1
Missing	4	1.0
Total sample (N)	385	100.0



According to Table 4.13, the majority of the participants (70.1%) indicated their parents/guardians as their primary source of income followed by the government (18.2%) and a sponsor/corporate (8.6%). The remaining participants indicated another primary source of income (2.1%) other than those listed, specifying a spouse and part-time employment as their primary income source.

The section above provided a summary of the demographical information of the total sample. The subsequent section provides a discussion on the results of the reliability and validity of the applied main survey questionnaire.

4.4.2 Validity and reliability of the scale

The validity of a measure denotes whether the measure actually signifies the true construct of interest, thus measuring what it is intended to measure (Pallant, 2007:6; Remler & Van Ryzin, 2011:106). Reliability, as described by Cant *et al.* (2005:234), is the degree to which the scale produces consistent results if repeated. This section provides an overview of the Cronbach alpha and average inter-item correlations of the scales in Section B and Section D of the research instrument utilised in this study, to ensure validity and reliability of the research instrument.

According to Peterson (1994:382), a Cronbach alpha level of 0.50 is acceptable. However, Malhotra (2010:319), states that a Cronbach alpha value above 0.6 commonly point towards sufficient reliability. An acceptable Cronbach alpha value of 0.820 was computed for the financial planning scale (Scale B). However, the construct pertaining to credit planning (Construct 2), within this scale, produced a low Cronbach alpha value and therefore a decision was made to exclude item B6 (credit card convenience) and item B10 (convenience of personal loans) within this construct. This can be contributed to the participants being unfamiliar with the use of credit cards and personal loans. Moreover, the retirement planning construct (Construct 5) was excluded within this section since it returned a low Cronbach alpha value of 0.289, indicating that this construct is not reliable. This can be attributed to the fact that students have not given much thought to retirement and do not yet see the value of planning for retirement or may not know what it entails. The Cronbach alpha value of the construct pertaining to credit planning increased significantly from 0.524 to 0.736, and the Cronbach alpha value of the entire scale increased to 0.823. The scale for Section D, pertaining to perceived financial management skills, returned an acceptable Cronbach alpha value of 0.818. Hence, both Scale B and Scale D report acceptable Cronbach alpha values. A summary of the validity and reliability of the personal financial planning scale constructs, excluding item B6 and item B10 of the construct pertaining to credit planning and the entire retirement planning construct (B24-B26), as well as the financial management skills scale, is presented in Table 4.14.

Table 4.14 provides a summary of the validity and reliability measures of the research instrument used in this study.

Table 4.14: Reliability and validity measures of the scales in the main study

	Number of items	Cronbach alpha	Average inter-item correlation
Scale B: Personal financial planning	25	0.823	0.164
Construct 1: Financial planning process	5	0.711	0.334
Construct 2: Credit planning	3	0.736	0.478
Construct 3: Insurance planning	5	0.711	0.329
Construct 4: Investment planning	8	0.628	0.190
Construct 6: Estate planning	4	0.817	0.527
Scale D: Personal financial management skills	10	0.818	0.319

Table 4.14 indicates that the constructs within Scale B have acceptable Cronbach alpha values. Additionally, the average inter-item correlation value, which tests internal reliability and construct validity (Pallant, 2007:98), of 0.164 was calculated for the attitudes towards personal financial planning scale with the deleted variables, which is an increase from 0.147 without the deleted variables. The personal financial management skills scale returned an average inter-item correlation value of 0.319. Both scales report average inter-item correlation values that is within the recommended range of 0.15 and 0.50 (Clark & Watson, 1995:316). As suggested by Pallant (2007:98), the mean average inter-item correlation for the overall scale for testing internal reliability and construct validity, was computed. This infers that the research instrument employed in this study does measure the students' attitudes towards personal financial planning, and their perceived personal financial management skills, respectively. The descriptive statistics on the data follows.

4.4.3 Descriptive statistics

Tables 4.15, 4.16 and 4.17 present the descriptive statistics pertaining to the total sample measured in the personal financial planning section (Section B), the financial literacy section (Section C) and the personal financial management skills section (Section D) of the final survey questionnaire, respectively. Measures of location, variability and shape

were calculated across all scaled items. The number of completed questionnaires by the participants is shown as the Valid *N* in the table below. Given the six-point Likert scale, which ranged from strongly disagree (1) to strongly agree (6), higher mean values are associated with more positive attitudes towards personal financial planning, and higher perceived personal financial management skills amongst black Generation Y students. Given the multiple-choice questions asked in Section C, which provided four possible answers (a-d), higher mean values are associated with a higher level of financial literacy amongst black Generation Y students. Table 4.15 reports on the descriptive statistics pertaining to the personal financial planning section (Section B)

Table 4.15: Descriptive statistics: personal financial planning

Item	Valid *N*	Mean	Standard deviation	Skewness	Kurtosis
Scale B: Personal financial planning	385	4.416	0.600	-0.292	-0.429
Construct B1: Financial planning process	385	3.948	0.921	-0.356	-0.412
Construct B2: Credit planning	385	4.187	1.282	-0.533	-0.476
Construct B3: Insurance planning	385	4.227	1.001	-0.611	0.036
Construct B4: Investment planning	385	4.551	0.717	-0.621	1.108
Construct B6: Estate planning	385	5.142	0.889	-1.451	2.545

As shown in Table 4.15, means above three were computed on all of the constructs of the financial planning scale (Scale B). This suggests that black Generation Y students exhibit positive attitudes towards personal financial planning. Construct B6, pertaining to estate planning, scored the highest mean (mean = 5.142), suggesting that black Generation Y students have a positive attitude towards estate planning as part of personal financial planning. The second highest mean score (mean = 4.551) was recorded for investment planning (Construct B4), followed by insurance planning (Construct B3) (mean = 4.227), which suggest that participants have a positive attitude towards investment and insurance planning as part of personal financial planning. The lowest mean (mean = 3.948) was recorded for the financial planning process (Construct B1), followed by the second lowest mean (mean = 4.187) recorded for credit planning (Construct B2). The mean scores of the participants' attitudes towards the different personal financial planning constructs, as discussed above, are graphically depicted in Figure 4.1 below.

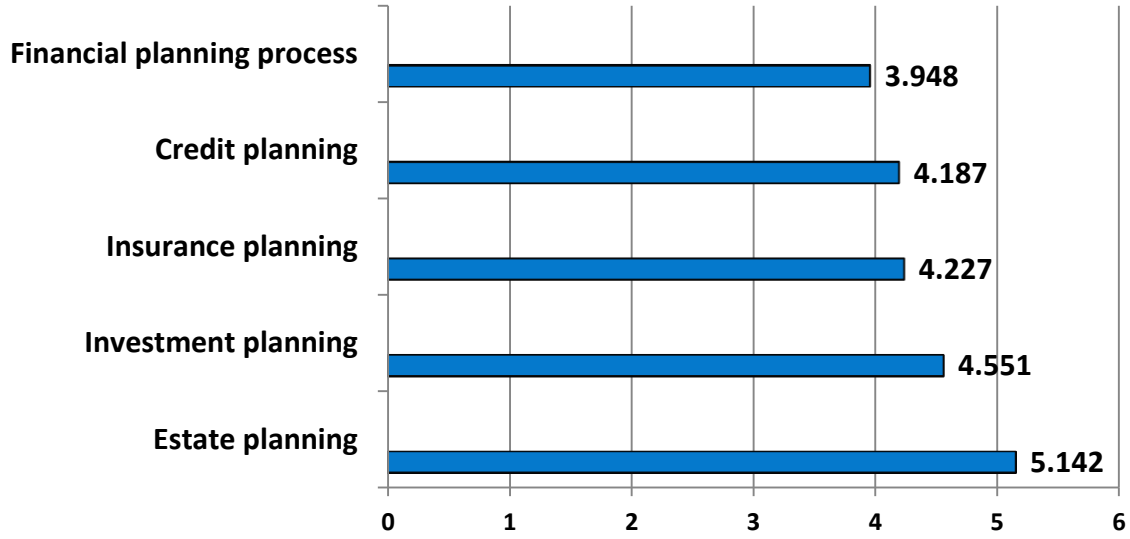


Figure 4.1: Summary of participants' attitudes towards personal financial planning

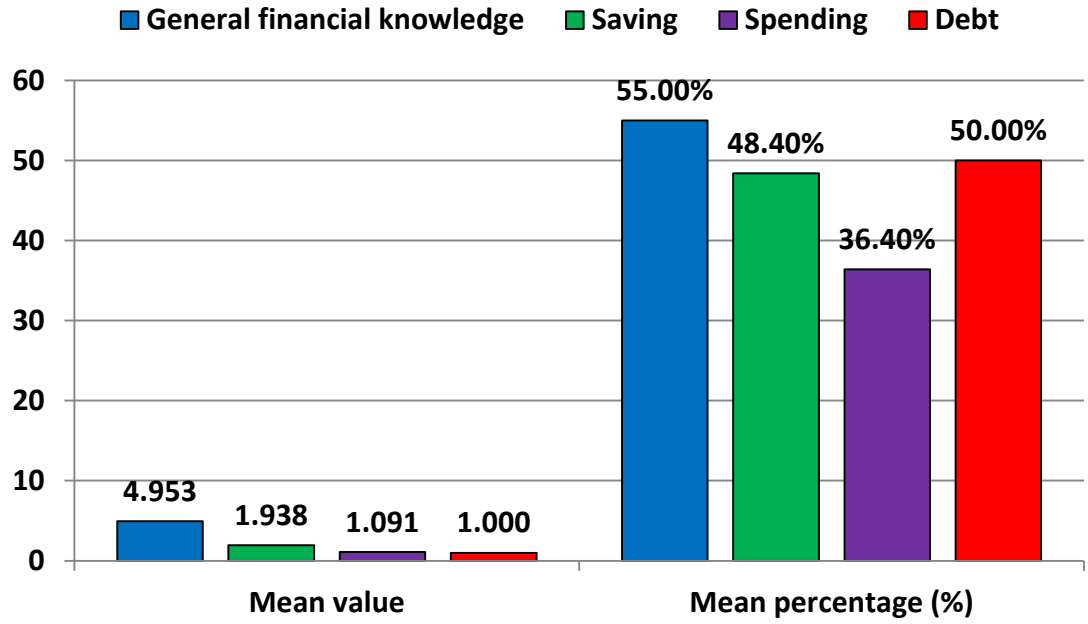
The highest standard deviations, of the personal financial planning scale (Scale B), indicating more dispersion of agreement amongst participants, were computed for credit planning (Construct B2) (Std. Dev. = 1.282), insurance planning (Construct B3) (Std. Dev. = 1.001) and the financial management process (Construct B1) (Std. Dev. = 0.921) as indicated in Table 4.15. Lower standard deviations, signifying lower dispersion of agreement amongst the participants, were recorded on estate planning (Construct B6) (Std. Dev. = 0.889), followed by the lowest standard deviation computed for investment planning (Construct B4) (Std. Dev. = 0.717). As can be seen from Table 4.15, the scale applied in Section B of the final questionnaire may be classified as normally distributed, due to most of the skewness scores, referring to the symmetry of distribution, falling outside the -2 or +2 range. Regarding the kurtosis, which measures the peakedness of the distribution of the values, it indicate that the distributions were either flat (negative) or more peaked than normal, given the fact that the majority of the variables differed from zero. Table 4.16 reports on the descriptive statistics pertaining to the financial literacy section (Section C).

Table 4.16: Descriptive statistics: financial literacy

Item	Valid *N*	Mean	Standard deviation
Scale C: Financial literacy	385	8.982	2.879
Construct C1: General financial knowledge	385	4.953	1.663
Construct C2: Saving	385	1.938	0.944
Construct C3: Spending	385	1.091	0.883
Construct C4: Debt	385	1.000	0.728

The mean value of the entire scale was computed by summating the total correct answers per question (refer to Table 4.4) divided by the Valid *N* (*N* = 385). The mean values of the financial literacy constructs were computed by summating the total number of correct answers per question in each construct divided by the Valid *N* (*N* = 385). The mean values, represented as percentages, were computed by dividing the mean value with the number of questions asked in the entire scale and in each construct respectively. As seen in Table 4.16, the financial literacy scale (Scale C) scored a mean value of 8.982, indicating that the participants scored less than 50 percent in the financial literacy section. The highest mean score (mean = 4.953) was recorded for general financial knowledge (Construct C1) (Questions C1-C9). This indicates that approximately 55 percent of the financial literacy questions, pertaining to general financial knowledge, were answered correctly. The second highest mean score (mean = 1.938) was recorded for saving (Construct C2) (Questions C10-C13), signifying that nearly 48.40 percent of the financial literacy questions pertaining to saving were answered correctly. This is followed by questions pertaining to spending (Construct C3) (Questions C14-C16) (mean = 1.091), indicating that 36.40 percent of the financial literacy questions pertaining to spending were answered correctly. The lowest mean score (mean = 1.000) was recorded for debt (Construct C4) (Questions C17- C18), indicating that 50 percent of the financial literacy questions pertaining to debt were answered correctly. Therefore, in terms of percentages, participants scored the highest in the general financial knowledge construct, followed by debt, and then saving, and the lowest in the spending construct. Figure 4.2 graphically depicts these results. Interestingly, in view of South African economic trends, these financial literacy results are consistent with the low household domestic savings rate (-0.02%), high levels of unsecured debt at high interest rates and excessive spending

patterns (Duncan, 2013). Moreover, these results correspond with the low financial literacy levels worldwide (Van Nieuwenhuyzen, 2009:69).



Mean value = ∑(Total of correct answers per question per construct)/*N*
Mean % = Mean value/Number of questions in construct

Figure 4.2: Financial literacy constructs: mean scores

A standard deviation of 2.879, as indicated in Table 4.16, was recorded on Scale C, indicating that participants differed in their answers provided. The highest standard deviation (Std. Dev. = 1.663) was recorded on general financial knowledge (Construct C1), indicating a fair degree of variation between the participants' answers. This is followed by saving (Construct C2) (Std. Dev. = 0.944) and spending (Construct C3) (Std. Dev. = 0.883), indicating more agreement in their answers. The lowest standard deviation (Std. Dev. = 0.728), signifying minimum variation amongst the participants' answers, was recorded on debt (Construct C4) (Std. Dev. = 0.728). Table 4.17 reports on the descriptive statistics pertaining to the personal financial management skills section (Section D).

Table 4.17: Descriptive statistics: personal financial management skills

Item	Valid N	Mean	Standard deviation	Skewness	Kurtosis
Scale D: Personal financial management skills	385	4.564	0.717	-0.339	0.508
D1	385	4.600	1.233	-1.018	0.593
D2	385	4.429	1.336	-0.780	-0.076
D3	385	4.436	1.231	-0.710	0.116
D4	385	4.296	1.334	-0.720	-0.013
D5	385	4.112	1.346	-0.558	-0.257
D6	385	4.530	1.082	-0.591	0.408
D7	385	4.738	1.061	-0.893	0.894
D8	385	4.873	0.974	-1.151	2.242
D9	385	4.842	0.928	-0.699	0.853
D10	385	4.794	1.034	-0.834	0.671

As shown in Table -4.17, even though the expected means were set above 3, means above 4 were recorded on all of the items of the personal financial management scale (Scale C), which suggests that this generation considers themselves to be highly skilled in financial management. Decision-making skills (Item D8) recorded the highest mean (mean = 4.873), which suggests that black Generation Y students perceive themselves to be most skilled in decision making. The next highest mean was recorded on Item D9 (mean = 0.928), which suggests that participants perceive themselves to be skilled at solving problems. The lowest mean (mean = 4.112) was recorded on Item D5, which suggests that the participants perceive themselves to be the least skilled in managing stress.

The financial management skills scale scored the second lowest standard deviation (Std. Dev. = 0.717) of all three scales, suggesting that there is a relatively strong agreement amongst the participants regarding their perceived personal financial management skills. Therefore, the mean gave a satisfactory indication of the responses. Moreover, the highest standard deviation (Std. Dev. = 1.346) was recorded on stress management skills (Item D5), signifying less agreement amongst the participants regarding their perceived stress management skills. The lowest standard deviation (Std. Dev. = 0.928) was recorded on

problem solving skills (Item D3), indicating more agreement amongst the participants regarding their problem solving skills. From Table 4.17, it is noticeable that the scale applied in Section D of the final questionnaire may be classified as normally distributed, due to most of the skewness values, referring to the symmetry of distribution falling outside the -2 or +2 range. Regarding the kurtosis, which measures the peakedness of the distribution of the values, this indicates that the distributions were either flat (negative) or more peaked than normal, given the fact that the majority of the variables differed from zero. The following section consists of a discussion and analysis of the results pertaining to the participants' financial literacy scores to evaluate their level of financial literacy further.

4.4.4 Participants' financial literacy level

Table 4.18 reports of the participants' financial literacy scores of correct answers pertaining to the entire financial literacy scale.

Table 4.18: Table of scores of correct answers: entire financial literacy scale

Number of correct answers	Frequency *f*	Cumulative frequency *F*
1	2	2
2	5	7
3	5	12
4	12	24
5	22	46
6	32	78
7	33	111
8	57	168
9	40	208
10	60	268
11	39	307
12	36	343
13	26	369
14	12	381
15	1	382
16	1	383
18	2	385

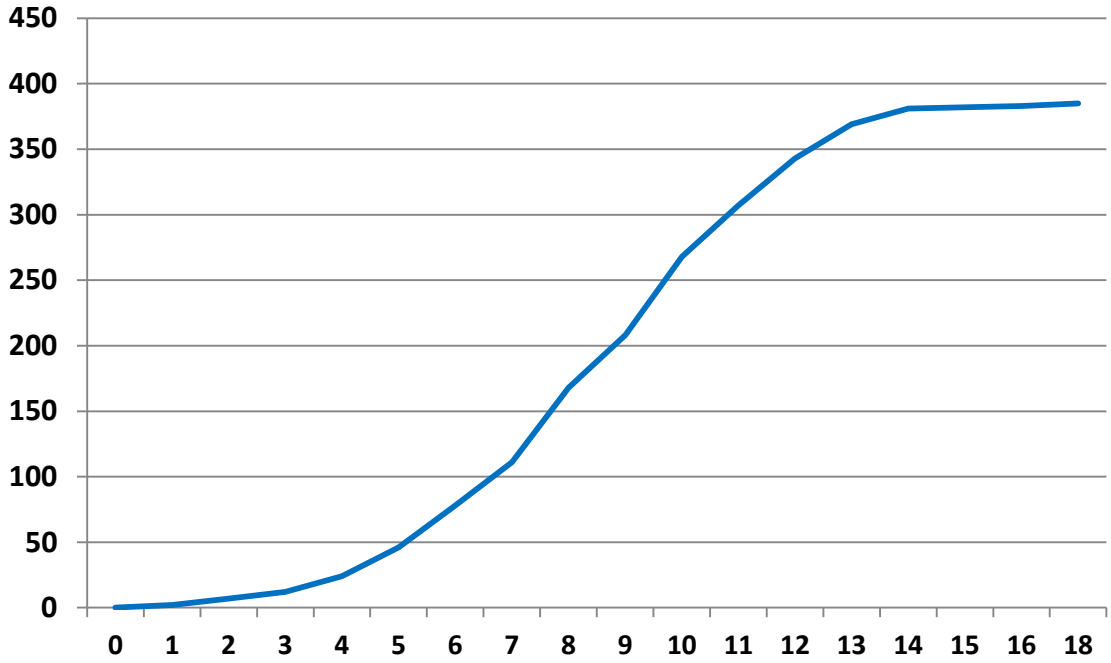


Figure 4.3: Cumulative frequency polygon

Table 4.18 indicates that, of the 18 multiple-choice questions, two participants scored one correct answer and two participants scored full marks. Furthermore, 271 students (385-168) (56.4%) scored nine and higher correct answers out of a total of 18 questions asked, whereas 168 students (43.6%) obtained a financial literacy score of less than 50 percent (8 and less out of 18 questions). These results are illustrated clearly by the cumulative frequency polygon (Figure 4.3). In Table 4.19, the participants' scores pertaining to the different financial literacy constructs are reported on.

Table 4.19: Table of scores of correct answers: financial literacy constructs

Number of correct answers per construct	Frequency *f*	Cumulative frequency *F*
Construct 1: General financial knowledge		
0	2	2
1	9	11
2	16	27
3	42	69
4	85	154
5	77	231
6	83	314
7	54	368
8	14	382
9	3	385
Construct 2: Saving		
0	25	25
1	91	116
2	170	286
3	81	367
4	18	385
Construct 3: Spending		
0	110	110
1	154	264
2	97	361
3	24	385
Construct 4: Debt		
0	102	102
1	181	283
2	102	385

As indicated in Table 4.19, two participants were not able to answer any of the questions in the general financial knowledge construct correctly, compared to three participants obtaining full marks for this construct. Furthermore, in this construct, 154 students (40%) scored four and less correct answers out of a possible nine questions, whereas 231 students (60%) scored five and more correct answers. In the saving construct, 25 participants obtained no correct answers out of a possible four questions, whereas only 18 participants scored full marks. Moreover, in this construct, 286 students (74.3%) scored 50 percent and less, compared to 99 students (25.7%) scoring more than 50 percent. As seen in the spending construct, 264 students, signifying 68.6 percent, managed to obtain

one correct answer out of a possible three. As shown the debt construct, 283 students (73.5%) obtained one correct answer out of a possible two, and only 102 students (26.5%) obtained full marks.

Figure 4.4 graphically depicts the participants' overall financial literacy for the four constructs, and it clearly illustrates the participants' low levels of financial literacy; more than 50 percent of the participants answered nine out of the 18 questions incorrectly. Only three questions were answered correctly by more than 80 percent of the participants. The degree of difficulty of the financial literacy questions varied, which explains some of the high percentages achieved in specific questions.

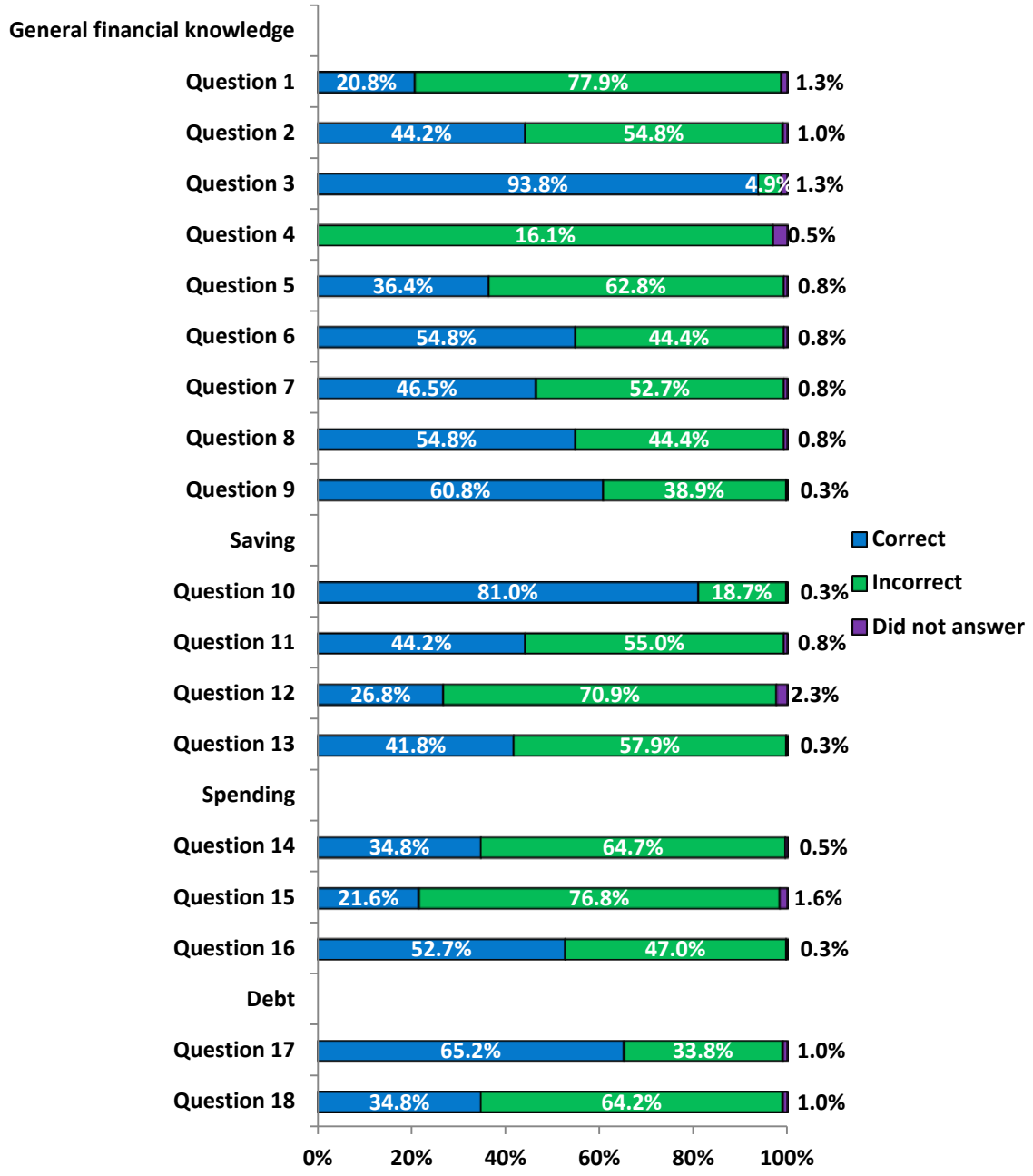


Figure 4.4: Summary of participants' financial literacy

Even though the majority (90.6%) of the participants claim to know what personal financial planning (Item B1) (mean = 4.745) is, their low financial literacy scores suggest the opposite. Despite the participants' low levels of financial literacy scores in the general financial knowledge, saving, spending and debt constructs, the majority (73.3%) of the participants indicated not seeking advice from financial experts concerning their financial plans (Item B4). This possibly results in inadequate and incorrect personal financial planning pertaining to personal financial goals and objectives (Item B2), financial

position analysis (Item B3) and financial plan reviews (Item B5) (Section 2.2.4). Furthermore, the low financial literacy scores suggest that the participants are not skilled at listing their needs for life insurance (Item B11), comparing shopping for life insurance (Item B12), and distinguishing between different types of insurance policies (Item B15). Concerning though, is that although the majority (94.8%) of the participants find investing (Item B16), as part of investment planning (Construct B4), to be important (mean = 5.499), effective investment decisions (Section 2.2.6.3) cannot be made with minimal financial knowledge, as is evident in this sample. This questions whether the majority (68.6%) of participants do in fact have a specific investment plan (Item B17), the majority (80.5%) understand their risk profiles in terms of investments (Item B19), and whether the majority (84.4%) are knowledgeable on how to invest a large amount of money (Item B22). In addition, even though the majority (74%) of the participants indicated that they have a general understanding of the amount of money needed to retire comfortable one day (Item B24), the low scores obtained for the saving construct in the financial literacy scale, suggest otherwise. However, the majority (77.1%) of the participants indicated having not started saving or planning for their retirement (Item B25), which is consistent with the participants' low saving financial literacy.

The subsequent section consists of a discussion and analysis of the results pertaining to the participants' perceived personal financial skills, which is provided to further evaluate whether they perceive themselves as being skilled in managing their personal finances successfully.

4.4.5 Participants' perceived personal financial management skills

Figure 4.5 presents the results of the participants' perceived personal financial management skills.

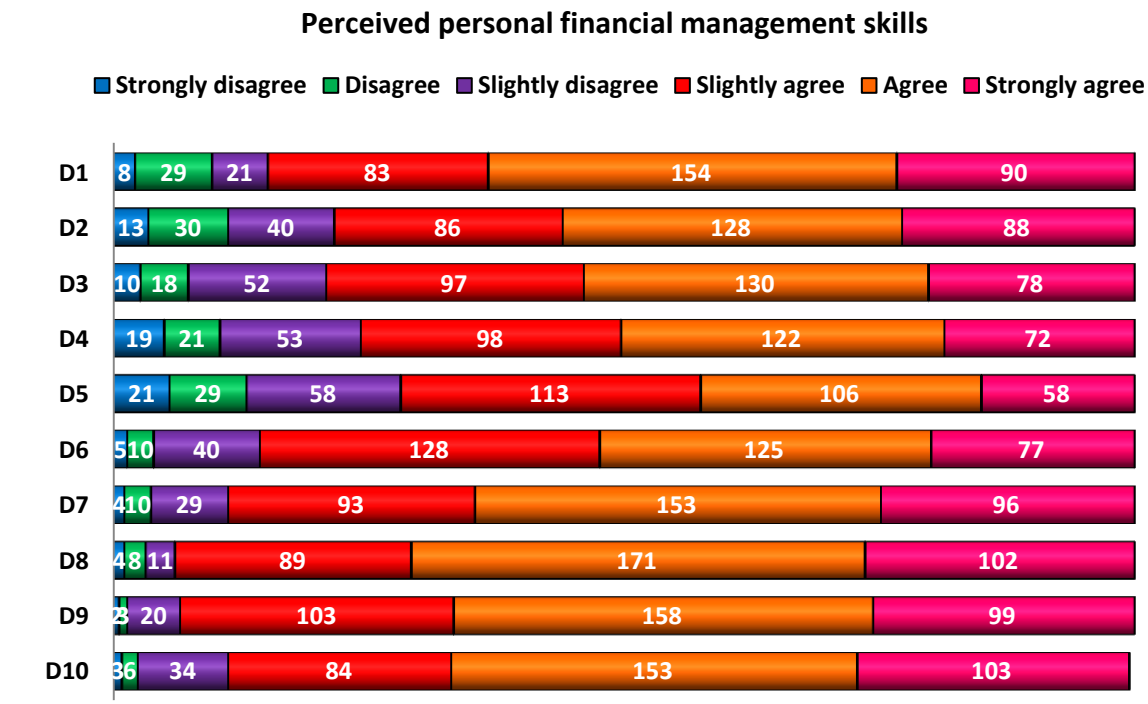


Figure 4.5: Perceived personal financial management skills

The majority of the participants perceive themselves as being equipped with the necessary personal financial management skills. Figure 4.5 illustrates that decision-making skills (Item D8) were rated the highest in terms of financial skills level, whereas stress management skills (Item D5) were rated the lowest. This is a concern, owing that ineffective personal financial management and planning, as a result of financial illiteracy, will give rise to stress, which ultimately should be managed to ensure successful personal financial management. Even though the participants perceive themselves as having financial skills to manage personal finances, a lack of financial literacy questions whether the participants are really capacitated with the necessary financial skills to manage and plan personal finances successfully.

Interestingly, although the majority of the participants perceive themselves as being skilled at managing their daily expenses (Item D1), the low financial literacy score in the spending construct contradicts this. The participants also claim to be skilled at managing credit (Item D2), which is consistent with Items B7, B8 and B9, where the majority of the participants' indicated paying the full outstanding amount on their accounts each month, paying all their accounts on time each month, and avoiding maxing out or going over the limit on their accounts. However, this is inconsistent with their low financial literacy

score in the debt construct. Moreover, participants indicated that although they perceive themselves to be skilled at providing for their future needs (Item D3), contradictory to this they indicate having not started planning for retirement (Item B25), as well as achieving a low financial literacy score in the saving construct. In addition, participants are of view that they are skilled at managing their savings (Item D6), which is in contrast with the low financial literacy score in the saving construct.

Overall, participants seem to have a positive attitude towards personal financial planning, low levels of financial literacy, and perceive themselves as having the necessary financial skills to manage their personal finances. The section to follow provides a brief discussion relating to the closed-ended question included in the main survey questionnaire. The closed-ended question aimed to determine whether the participants would be interested in receiving information from their university on personal financial management through various media.

4.4.6 Participants' preferred medium for receiving personal financial management information

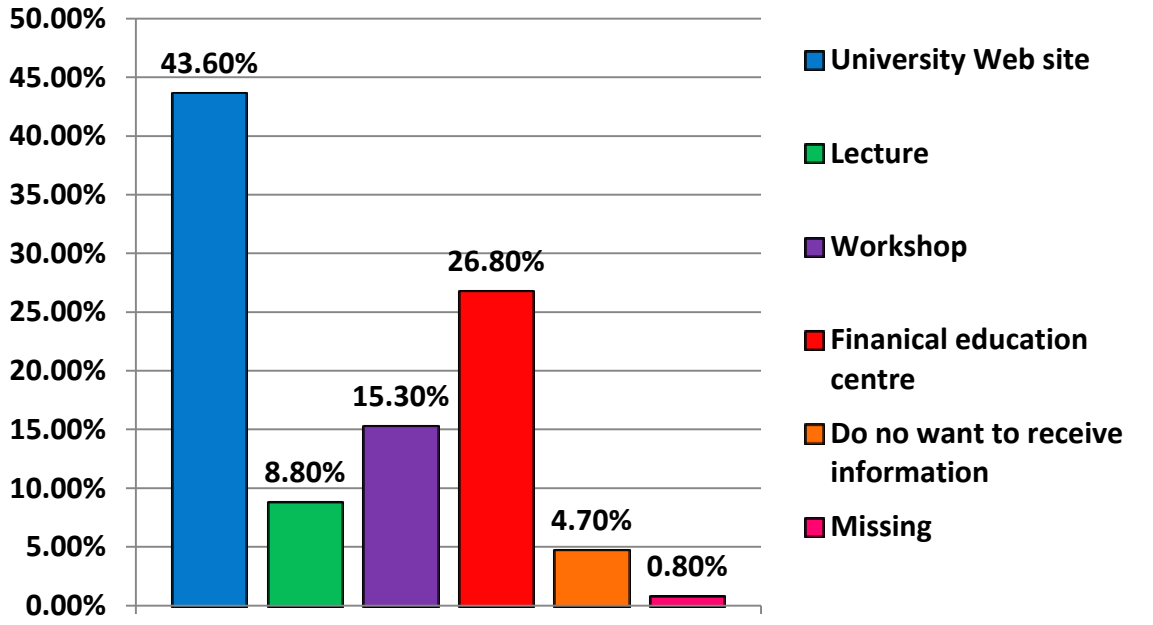


Figure 4.6: Preferred medium for receiving personal financial management information

Figure 4.6 indicates that almost all of the participants (99.20%) are interested in receiving personal financial management information through some form of media from their university. The majority of the participants indicated the university Website as their preferred method for receiving information pertaining to financial management. This is followed by a financial education centre (26.80%), a workshop (15.30%) and lastly, through a lecture (8.80%). This high interest may be as a result of the participants' realisation of their lack of the required financial literacy, and having the need of improving their short and long-term personal financial situation. Only a small percentage (4.70%) of the participants indicated no interest in receiving personal financial management information, possibly because these participants have not given much thought to personal finance, or they are of view that they have their personal financial matters are under control, which, when considering the participants low financial literacy score obtained in this study, does not seem to be the case. Three participants (0.80%) did not answer the closed-ended question.

In the previous section, the descriptive statistics were discussed to establish whether the data was distributed normally. A discussion pertaining to the reliability and validity analysis, students' attitudes towards personal financial planning, their financial literacy, and their perceived personal financial management skills, was included. The subsequent section discusses the tests of significance undertaken in this study.

4.5 HYPOTHESES TESTING

A hypothesis is a logical supposition, a reasonable guess, an educated conjecture. It offers a tentative explanation for a phenomenon under examination (Leedy & Ormrod, 2010:4). For the purpose of this study, comparative analysis, in the form of t-tests, analysis of variance (ANOVA), and correlation analysis, was used to achieve the empirical objectives and test the hypotheses set out in Chapter 1. For each of these tests, the significance level is set at the conventional 5 percent level; that is, $\alpha = 0.05$ (Kolb, 2008:259). The decision rule applied, as suggested by Pallant (2007:235) is as follows:

- If P-value > α, then conclude Ho.
- If P-value $\leq \alpha$, then conclude Ha.

In addition to determining the statistically significant difference between means, Cohen's D statistic was calculated to examine whether the difference is practically significant by estimating the effect size. Guidelines by Pallant (2007:208) for evaluating this effect size are as follows:

- $0.20 \leq d < 0.50$ – small effect, practically non-significant
- $0.50 \leq d < 0.80$ – medium effect, points towards being practical significant
- $0.80 \leq d$ – large effect and the results are practically significant.

It should be noted that the retirement planning construct was not included for any empirical testing, due to this construct returning a low Cronbach alpha during the main study. As such, this construct was excluded from Scale B. In addition, black Generation Y students' attitude towards being skilled in personal financial management is deliberated. In the following section, black Generation Y students' attitudes towards personal financial planning, such as the financial planning process, credit planning, insurance planning, investment planning, and estate planning are considered.

4.5.1 Personal financial planning

In order to achieve the first and second empirical objectives and test the hypotheses relating to the participants attitudes towards personal financial planning (Scale B) set out in Chapter 1 (refer to Section 1.3.3), a t-test and ANOVA were undertaken.

4.5.1.1 One-sample t-test

For the purpose of addressing the first empirical objective of this study, a single-tailed, one sample t-test was conducted to determine whether black Generation Y students have statistically significant positive attitudes towards the financial planning process, credit planning, insurance planning, investment planning and estate planning (Scale B). The expected mean was set at $X > 3$. The hypotheses (*Ho1*/*Ha1*–*Ho5*/*Ha5*) were formulated as follows:

Ho1: Black Generation Y students do not have a significant positive attitude towards the financial planning process.

Ha1: Black Generation Y students do have a significant positive attitude towards the financial planning process.

Ho2: Black Generation Y students do not have a significant positive attitude towards credit planning.

Ha2: Black Generation Y students do have a significant positive attitude towards credit planning.

Ho3: Black Generation Y students do not have a significant positive attitude towards insurance planning.

Ha3: Black Generation Y students do have a significant positive attitude towards insurance planning.

Ho4: Black Generation Y students do not have a significant positive attitude towards investment planning.

Ha4: Black Generation Y students do have a significant positive attitude towards investment planning.

Ho5: Black Generation Y students do not have a significant positive attitude towards estate planning.

Ha5: Black Generation Y students do have a significant positive attitude towards estate planning.

Table 4.20 reports on the findings of the calculated t-values and p-values pertaining to the participants' attitudes towards personal financial planning.

Table 4.20: Black Generation Y students' attitudes towards personal financial planning

Construct (Scale B)	Mean	Standard deviation	Standard error	T statistic	p-value
Financial planning process (B1)	3.948	0.921	0.046	20.192	0.000*
Credit planning (B2)	4.187	1.282	0.065	18.156	0.000*
Insurance planning (B3)	4.227	1.001	0.051	24.051	0.000*
Investment planning (B4)	4.551	0.717	0.036	42.441	0.000*
Estate planning (B6)	5.142	0.889	0.045	47.275	0.000*

* Significant at the 0.05 level (1-tailed)

From Table 4.20 it can be seen that a p-value of $p < 0.05$ was calculated on the participants' attitudes towards the financial planning process (Construct 1). Therefore, *Ho1* is rejected and *Ha1* is concluded. This suggests that black Generation Y students exhibit a statistically significant positive attitude towards the financial planning process ($p = 0.000 < 0.05$). Likewise, a p-value of $p < 0.05$ was computed on the participants' attitudes towards credit planning (Construct 2). As such, *Ho2* is rejected and *Ha2* is concluded. Black Generation Y students do appear to have a statistically significant positive attitude towards credit planning ($p = 0.000 < 0.05$). Similarly, a p-value of $p < 0.05$ was calculated on the participants' attitudes towards insurance planning (Construct 3). Therefore, *Ho3* is rejected and *Ha3* is concluded. This suggests that Black Generation Y students exhibit a statistically significant positive attitude towards insurance planning ($p = 0.000 < 0.05$). Again, a p-value of $p < 0.05$ was calculated on the attitudes towards investment planning (Construct 4). Consequently, *Ho4* is rejected and *Ha4* is concluded. Black Generation Y students appear to have a statistically significant positive attitude towards investment planning ($p = 0.000 < 0.05$). Concerning black Generation Y students' attitudes towards estate planning (Construct 6), a p-value of $p < 0.05$ was calculated and, therefore, *Ho5* is rejected and *Ha5* is concluded. This suggests that black Generation Y students appear to have a statistically significant positive attitude towards estate planning ($p = 0.000 < 0.05$).

4.5.1.2 One-way analysis of variance

For the purpose of addressing the second empirical objective of this study, one-way ANOVA was conducted to determine whether there is a significant difference between black Generation Y students' attitudes towards personal financial planning (Scale B), such as the financial planning process, credit planning, insurance planning, investment planning and estate planning, and different demographic profiles, such as gender, year of study and source of income. Differences were determined by undertaking a one-way ANOVA set at a confidence level of 95 percent. The hypotheses (*Ho6*/*Ha6*) were formulated as follows:

Ho6: There is no significant difference between black Generation Y students' attitudes towards personal financial planning (the financial planning process, credit planning, insurance planning, investment planning and estate planning) in terms of gender, year of study and source of income.

Ha6: There is a significant difference between black Generation Y students' attitudes towards personal financial planning (the financial planning process, credit planning, insurance planning, investment planning and estate planning) in terms of gender, year of study and source of income.

Table 4.21 reports on these findings regarding the statistical differences between the participants' personal financial planning attitudes and gender.

Table 4.21: Effects of gender on personal financial planning attitudes

Construct (Scale B)		Sum of squares	df	Mean square	F-ratio	Sig
Financial planning process (B1)	Between groups	6.473	1	6.473	7.762	0.006*
	Within groups	319.387	383	0.834		
	Total	325.860	384			
Credit planning (B2)	Between groups	1.950	1	1.950	1.742	0.188
	Within groups	428.759	383	1.119		
	Total	430.709	384			
Insurance planning (B3)	Between groups	0.414	1	0.414	0.413	0.521
	Within groups	384.345	383	1.004		
	Total	384.759	384			
Investment planning (B4)	Between groups	2.379	1	2.379	4.666	0.031*
	Within groups	195.301	383	0.510		
	Total	197.680	384			
Estate planning (B5)	Between groups	0.000	1	0.000	0.000	0.993
	Within groups	303.768	383	0.793		
	Total	303.768	384			

*Significant at $p < 0.05$ level

As is evident from Table 4.21, statistically significant differences were found between the financial planning process construct and the participants' gender, as well as between the investment planning construct and their gender ($p < 0.05$). Therefore, for these two constructs and gender, the null hypothesis, *Ho6*, is rejected and the alternative, *Ha6*, concluded. This suggests that there is a significant difference between male and female black Generation Y student's attitudes towards the financial planning process and

investment planning (p = 0.006, 0.031 < 0.05). For the remaining constructs, the null hypothesis, *Ho6*, cannot be rejected at the 0.05 significance level. This suggests that there no significant difference between male and female participants' attitudes towards credit planning, insurance planning and estate planning (p = 0.188, 0.521, 0.993 > 0.05). Table 4.22 reports on the findings regarding the statistical differences between the participants' personal financial planning attitudes and year of study.

Table 4.22: Effects of year of study on personal financial planning attitudes

Construct (Scale B)		Sum of squares	df	Mean square	F-ratio	Sig
Financial planning process (B1)	Between groups	0.124	2	0.062	0.073	0.930
	Within groups	325.736	382	0.853		
	Total	325.860	384			
Credit planning (B2)	Between groups	0.077	2	0.039	0.034	0.966
	Within groups	430.631	382	1.127		
	Total	430.709	384			
Insurance planning (B3)	Between groups	3.281	2	1.641	1.643	0.195
	Within groups	381.478	382	0.999		
	Total	384.759	384			
Investment planning (B4)	Between groups	0.448	1	0.224	0.433	0.649
	Within groups	197.232	383	0.516		
	Total	197.680	384			
Estate planning (B5)	Between groups	0.720	1	0.360	0.454	0.635
	Within groups	303.048	383	0.793		
	Total	303.768	384			

*Significant at p < 0.05 level

As represented in Table 4.22, there was found to be no statistically significant difference between the participants' attitudes towards the personal financial planning constructs and their year of study, as p-values were calculated p > 0.05. As such, the null hypothesis for attitudes towards all the personal financial planning constructs and year of study, *Ho6,* cannot be rejected at the 0.05 significance level. This suggests that there is no significant difference between the first-, second- and third year students' attitudes towards the financial planning process, credit planning, insurance planning, investment planning and

estate planning ($p > 0.05$). Table 4.23 reports on the findings regarding the statistical differences between the participants' personal financial planning attitudes and source of income.

Table 4.23: Effects of source of income on personal financial planning attitudes

Construct (Scale B)		Sum of squares	df	Mean square	F-ratio	Sig
Financial planning process (B1)	Between groups	2.534	3	0.845	0.993	0.396
	Within groups	320.726	377	0.851		
	Total	323.259	380			
Credit planning (B2)	Between groups	0.511	3	0.170	0.151	0.929
	Within groups	426.177	377	1.130		
	Total	426.688	380			
Insurance planning (B3)	Between groups	2.656	3	0.885	0.896	0.443
	Within groups	372.534	377	0.988		
	Total	375.191	380			
Investment planning (B4)	Between groups	1.530	3	0.510	0.994	0.396
	Within groups	193.438	377	0.513		
	Total	194.968	380			
Estate planning (B5)	Between groups	2.800	3	0.933	1.172	0.320
	Within groups	300.145	377	0.796		
	Total	302.945	380			

*Significant at $p < 0.05$ level

The participants who did not provide an answer to the demographic question relating to their primary source of income were excluded when conducting the ANOVA on primary source of income. As denoted in Table 4.23, no statistically significant differences were found between the participants' attitudes towards the personal financial planning constructs and their primary source of income, given that the p-values were calculated $p > 0.05$. Therefore, the null hypothesis for the personal financial planning constructs and primary source of income, *Ho6*, cannot be rejected at the 5 percent level. This suggests that there is no significant difference between the participants' attitudes towards the financial planning process, credit planning, insurance planning, investment planning and

estate planning and their primary source of income ($p > 0.05$). In the succeeding section, the hypotheses testing pertaining to financial literacy are discussed.

4.5.2 Financial literacy

In order to achieve the third and the fourth empirical objectives and test the hypotheses relating to participants level of financial literacy (Scale C) set out in Chapter 1 (refer to Section 1.3.3), a t-test and ANOVA were undertaken.

4.5.2.1 Paired-sample t-test

A paired samples t-test, with the purpose of addressing the third empirical objective, was employed to determine whether there were any differences in black Generation Y students' financial literacy scores, in the context of personal financial planning, pertaining to general financial knowledge, saving, spending and debt (Scale C). The mean values were calculated from the financial literacy constructs score and converted into percentages (refer to Figure 4.2). The hypotheses (*Ho7*/*Ha7*) were formulated as follows:

Ho7: Black Generation Y students have the same financial literacy scores on all of the constructs (general financial knowledge, saving, spending and debt) of financial literacy.

Ha7: Black Generation Y students do not have the same financial literacy scores on all of the constructs (general financial knowledge, saving, spending and debt) of financial literacy.

Table 4.24 reports on the means, standard deviations, t-statistics and p-values pertaining to general financial knowledge, saving, spending and debt.

Table 4.24: Mean differences: Financial literacy

Construct (Scale C)	Mean	Standard deviation	Standard error	T statistic	p-value	Cohen's D
Pair 1						
General financial knowledge (C1)	55.036	18.488	0.942	5.017	0.000*	0.279**
Saving (C2)	48.442	23.610.	1.203			

Table 4.24: Mean differences: Financial literacy (continued...)

Construct (Scale C)	Mean	Standard deviation	Standard error	T statistic	p-value	Cohen's D
Pair 2						
General financial knowledge (C1)	55.036	18.488	0.942	12.216	0.000*	0.633***
Spending (C3)	36.363	29.453	1.501			
Pair 3						
General financial knowledge (C1)	55.036	18.488	0.942	2.782	0.006*	0.138**
Debt (C4)	50.000	36.443	1.857			
Pair 4						
Saving (C2)	48.442	23.610.	1.203	6.921	0.000*	0.410**
Spending (C3)	36.363	29.453	1.501			
Pair 5						
Saving (C2)	48.442	23.610.	1.203	-0.782	0.434	****
Debt (C4)	50.000	36.443	1.857			
Pair 6						
Spending (C3)	36.363	29.453	1.501	-6.555	0.000*	0.374**
Debt (C4)	50.000	36.443	1.857			

*Significant at $p < 0.05$ level
Large effect, practically significant
** Small effect, practically non-significant
*** Medium effect and moving towards practical significance
**** Cohen's D-statistic not calculated as the variable was not statistically significant

From Table 4.24 it can be seen that a p-value of $p < 0.05$ was calculated on Pair 1 (general financial knowledge and saving), Pair 2 (general financial knowledge and spending), Pair 3 (general financial knowledge and debt), Pair 4 (saving and spending) and Pair 6 (spending and debt) of financial literacy. Therefore, for these five pairs of financial literacy, the null hypothesis, *Ho7*, is rejected and the alternative, *Ha7*, concluded. This suggests that black Generation Y students exhibit different financial literacy in the constructs represented in these five pairs ($p = 0.000, 0.006 < 0.05$). For Pair 5 (saving and debt), a p-value of $p > 0.05$ was calculated. As such, for this pair of

financial literacy, the null hypothesis, *Ho7*, cannot be rejected at the 5 percent significance level. This suggests that black Generation Y students exhibit the same financial literacy in the constructs represented in this pair ($p = 0.434 > 0.05$). The means, as indicated in Table 4.20, supports these results. In addition, the Cohen's D statistic was calculated to determine whether the differences in the financial literacy pairs were of practical significance. For Pairs 1, 3, 4 and 6, the computed Cohen's D values were in the range of 0.138 and 0.410, indicating a small, practically non-significant effect. For Pair 2, a Cohen's D value of 0.633 was computed, signifying medium effect moving towards practical significance. Cohen's D was not calculated for Pair 5, as there was no statistically significant difference. These results provide an indication that the lack of financial literacy in a specific financial topic results in financial illiteracy in another financial topic, and is proven considering the South African economic trends of low savings and high debt- and spending levels.

4.5.2.2 One-way analysis of variance

This section analyses whether there is a significant difference between the participants' financial literacy (Scale C) score, such as general financial knowledge, saving, spending and debt and different demographic profiles, such as gender, year of study and source of income. Differences were determined by undertaking a one-way ANOVA, set at a confidence level of 95 percent. This analysis addresses the fourth empirical objective for this study. The hypotheses (*Ho8*/*Ha8*) were formulated as follows:

Ho8: There is no significant difference between black Generation Y students' financial literacy score (general financial knowledge, saving, spending and debt) in terms of gender, year of study and source of income.

Ha8: There is a significant difference between black Generation Y students' financial literacy score (general financial knowledge, saving, spending and debt) in terms of gender, year of study and source of income.

Table 4.25 presents the results regarding the statistical differences between the participants' financial literacy and gender.

Table 4.25: Effects of gender on financial literacy score

Construct (Scale C)		Sum of squares	df	Mean square	F-ratio	Sig
General financial knowledge (C1)	Between groups	0.503	1	0.503	0.181	0.671
	Within groups	1062.656	383	2.775		
	Total	1063.158	384			
Saving (C2)	Between groups	0.280	1	0.280	0.313	0.576
	Within groups	342.224	383	0.894		
	Total	342.504	384			
Spending (C3)	Between groups	0.917	1	0.917	1.175	0.279
	Within groups	298.901	383	0.780		
	Total	299.818	384			
Debt (C4)	Between groups	0.011	1	0.11	0.021	0.885
	Within groups	203.989	383	0.533		
	Total	204.000	384			

*Significant at $p < 0.05$ level

From Table 4.25 it is evident that there are no statistically significant differences between the financial literacy construct scores and gender ($p > 0.05$). As such, the null hypothesis for all of the financial literacy construct scores and gender, *Ho8*, cannot be rejected at the 0.05 significance level. This suggests that there is no significant difference between male and female participants' financial literacy constructs scores pertaining to general financial knowledge, saving, spending and debt ($p > 0.05$). Table 4.26 presents the results regarding the statistical differences between the participants' financial literacy and their year of study.

Table 4.26: Effects of year of study on financial literacy score

Construct (Scale C)		Sum of squares	df	Mean square	F-ratio	Sig
General financial knowledge (C1)	Between groups	9.820	2	4.190	1.781	0.170
	Within groups	1053.338	382	2.757		
	Total	1063.158	384			

Table 4.26: Effects of year of study on financial literacy score (continued...)

Construct (Scale C)		Sum of squares	df	Mean square	F-ratio	Sig
Saving (C2)	Between groups	4.017	2	2.008	2.267	0.105
	Within groups	338.487	382	0.886		
	Total	342.504	384			
Spending (C3)	Between groups	10.189	2	5.095	6.719	0.001*
	Within groups	289.629	382	0.758		
	Total	299.818	384			
Debt (C4)	Between groups	10.181	2	5.090	10.032	0.000*
	Within groups	193.819	382	0.507		
	Total	204.000	384			

*Significant at $p < 0.05$ level

Table 4.26 indicates that there are statistically significant differences found between the financial literacy score pertaining to spending and debt and year of study ($p < 0.05$). As such, for these two constructs and year of study, the null hypothesis, *Ho8*, is rejected and the alternative, *Ha8*, concluded. This suggests that there are significant differences between the first-, second- and third year students' financial literacy scores pertaining to spending and debt ($p = 0.001$, $0.000 < 0.05$). For the remaining constructs, the null hypothesis, *Ho8*, cannot be rejected at the 0.05 significance level. This suggest that there is no significant difference between the first-, second- and third year students' financial literacy scores pertaining to general financial knowledge and saving ($p = 0.170$, $0.105 > 0.05$). The statistical differences found between the spending and debt constructs of financial literacy and year of study were investigated further with a Tukey HSD test, with the purpose of determining where the specific variances lay.

The Tukey HSD test (Annexure C) indicates that in the case of the year of study's effect on the spending and debt financial literacy score, statistically significant differences were found between four demographic categories with significance values of $p < 0.05$. This indicates that there are financial literacy score differences in terms of spending between first- and third year students ($p = 0.001 < 0.05$), and second- and third year students ($p = 0.035 < 0.05$), as well as financial literacy score differences in terms of debt between

first- and second year students ($p = 0.014 < 0.05$) and first- and third year students ($p = 0.000 < 0.05$).

Table 4.27 presents the results regarding the statistical differences between the participants' financial literacy and source of income.

Table 4.27: Effects of source of income on financial literacy score

Construct (Scale C)		Sum of squares	df	Mean square	F-ratio	Sig
General financial knowledge (C1)	Between groups	10.260	3	3.420	1.245	0.293
	Within groups	1035.226	377	2.746		
	Total	1045.486	380			
Saving (C2)	Between groups	1.516	3	0.505	0..563	0.640
	Within groups	338.326	377	0.897		
	Total	339.843	380			
Spending (C3)	Between groups	3.585	3	1.195	1.537	0.204
	Within groups	293.014	377	0.777		
	Total	296.598	380			
Debt (C4)	Between groups	3.364	3	1.121	2.139	0.095
	Within groups	197.612	377	0.524		
	Total	200.976	380			

*Significant at $p < 0.05$ level

The participants who did not provide an answer to the demographic question relating to their primary source of income were excluded when conducting the ANOVA on source of income, as is evident from Table 4.27, no statistically significant differences were found between the participants financial literacy construct scores and their primary source of income ($p > 0.05$). As such, the null hypothesis for financial literacy scores and source of income, *Ho8*, cannot be rejected at the 0.05 significance level. This suggests that there is no significant difference between the participants' general financial knowledge, saving, spending and debt for financial literacy and source of income ($p > 0.05$). In the following section, black Generation Y students' perceived financial management skills are considered.

4.5.3 Personal financial management skills

In order to achieve the fifth and sixth empirical objectives and test the hypotheses relating to participants perceived financial management skills (Scale D) set out in Chapter 1 (refer to Section 1.3.3), a t-test and ANOVA were undertaken.

4.5.3.1 One-sample t-test

For the purpose of addressing the fifth empirical objective of this study a single-tailed, one sample t-test was conducted to determine whether black Generation Y students perceive themselves as being skilled in personal financial management (Scale D). The expected mean was set at $X > 3$. The hypotheses (*Ho9*/*Ha9*) were formulated as follows:

Ho9: Black Generation Y students do not perceive themselves as being skilled in personal financial management.

Ha9: Black Generation Y students do perceive themselves as being skilled in personal financial management.

Table 4.28 reports on the computed t-values and p-values pertaining to participants' perceived personal financial management skills.

Table 4.28: Black Generation Y students' perceived personal financial management skills

Item (Scale D)	Mean	Standard deviation	Standard error	T statistic	p-value
D1	4.600	1.223	0.062	25.449	0.000*
D2	4.429	1.336	0.068	20.973	0.000*
D3	4.436	1.231	0.062	22.874	0.000*
D4	4.296	1.334	0.068	19.049	0.000*
D5	4.112	1.346	0.068	16.204	0.000*
D6	4.530	1.082	0.055	27.735	0.000*
D7	4.738	1.061	0.054	32.132	0.000*
D8	4.873	0.974	0.049	37.708	0.000*
D9	4.842	0.928	0.047	38.909	0.000*
D10	4.794	1.034	0.052	33.941	0.000*

*Significant at the 0.05 level (1-tailed)

A p-value of $p < 0.05$ was calculated on the perceptions towards being skilled in personal financial management, as indicated in Table 4.28. Consequently, *Ho9* is rejected and *Ha9* concluded. Black Generation Y students seem to perceive themselves as being skilled in personal financial management ($p = 0.000 < 0.05$).

4.5.3.2 One-way analysis of variance

This section analyses whether there is a significant difference between the participants' perceived personal financial management skills (Section D) and their different demographic profiles such as gender, year of study, and source of income. Differences were determined by undertaking a one-way ANOVA set at a confidence level of 95 percent. This analysis addresses the sixth empirical objective of this study. The hypotheses (*Ho10*/*Ha10*) were formulated as follows:

Ho10: There is no significant difference between black Generation Y students' perceived personal financial management skills in terms of gender, year of study and source of income.

Ha10: There is a significant difference between black Generation Y students' perceived personal financial management skills in terms of gender, year of study and source of income.

Table 4.29 presents the results regarding the statistical differences between the participants' perceived personal financial management skills and gender.

Table 4.29: Effects of gender on perceived personal financial management skills

Construct (Scale D)		Sum of squares	df	Mean square	F-ratio	Sig
Perceived personal financial management skills	Between groups	1.068	1	1.068	2.081	0.150
	Within groups	196.598	383	0.513		
	Total	197.666	384			

*Significant at $p < 0.05$ level

As indicated in Table 4.29, no significant differences were found between the participants' perceived personal financial management skills and gender, given that the p-value was calculated $p > 0.05$. Therefore, the null hypothesis for personal financial

management skills and gender, *Ho10*, cannot be rejected at the 5 percent significance level. This suggests that there is no significant difference between male and female participants' perceived personal financial management skills ($p = 0.150 > 0.05$). Table 4.30 presents the results regarding the statistical differences between the participants' perceived personal financial management skills and their year of study.

Table 4.30: Effects of year of study on perceived personal financial management skills

Construct (Scale D)		Sum of squares	df	Mean square	F-ratio	Sig
Perceived personal financial management skills (D1-D10)	Between groups	0.051	2	0.026	0.050	0.951
	Within groups	197.615	382	0.517		
	Total	197.666	384			

*Significant at $p < 0.05$ level

It is evident from Table 4.30 that no statistically significant differences were found between the participants' perceived personal financial management skills and their year of study ($p > 0.05$). As such, the null hypothesis for perceived personal financial management skills and year of study, *Ho10*, cannot be rejected at the 0.05 significance level. This implies that there is no significant difference between the first-, second- and third year students' perceived personal financial management skills ($p = 0.951 > 0.05$). Table 4.31 presents the results regarding the statistical differences between the participants' perceived personal financial management skills and their primary source of income.

Table 4.31: Effects of source of income on perceived personal financial management skills

Construct (Scale D)		Sum of squares	df	Mean square	F-ratio	Sig
Perceived personal financial management skills (D1-D10)	Between groups	4.887	3	1.629	3.230	0.023*
	Within groups	190.161	377	0.504		
	Total	195.049	380			

*Significant at $p < 0.05$ level

The participants who did not provide an answer to the demographic question relating to their primary source of income were excluded when conducting the ANOVA on source of income. Table 4.31 indicates that there is a statistically significant difference found between the participants' perceived personal financial management skills and their primary source of income ($p < 0.05$). Hence, for perceived personal financial management skills and source of income, the null hypothesis, *Ho10*, is rejected and the alternative, *Ha10*, concluded. This suggests that there is a significant difference between the participants' perceived personal financial management skills and their source of income ($p = 0.023 < 0.05$). The statistical differences found between personal financial management skills and primary source of income were investigated further with a Tukey HSD test, with the purpose of determining where the specific variances lay.

The Tukey HSD test (Annexure C) indicates that in the case of source of income's effect on personal financial management skills, statistically significant differences were found between two demographic categories with significance values of $p < 0.05$. This indicates that there are personal financial management skill differences between students with parents/guardians as their primary source of income and students with a sponsor/corporate income source ($p = 0.015 < 0.05$), as well as between students with a sponsor/corporate income source and students with a government primary income source ($p = 0.035 < 0.05$).

In the subsequent section, the relationship between participants' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills is determined.

4.5.4 Personal financial planning, financial literacy and personal financial management skills

The seventh empirical objective formulated in Chapter 1 (refer to Section 1.3.3) was addressed by conducting correlation analysis. Pearson's product-moment correlation coefficient was calculated to determine whether there is a relationship between black Generation Y students' attitudes towards personal financial planning (Scale B), their financial literacy (Scale C), and their perceived personal financial management skills (Scale D). The hypotheses (*Ho11*/*Ha11*) were formulated as follows:

Ho11: There is no relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills.

Ha11: There is a relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills.

Table 4.32 reports on the results of the correlation analysis

Table 4.32: Relationship between attitudes towards personal financial planning, financial literacy and perceived personal financial management skills

Scale ***N* = 385**		**Personal financial planning**	**Financial literacy**	**Personal financial management skills**
Personal financial planning	Pearson correlation	1	0.069	0.514
	Sig (2-tailed)		0.175	0.000*
Financial literacy	Pearson correlation	0.069	1	-0.058
	Sig (2-tailed)	0.175		0.259
Personal financial management skills	Pearson correlation	0.514	-0.058	1
	Sig (2-tailed)	0.000*	0.259	
*Correlation is significant at the 0.01 level (2-tailed)				

According to Pallant (2007:132), the strength of the relationship is determined by calculating the Pearson *r*, whereby a value of 0.10 to 0.29 represents a small relationship, 0.30 to 0.49 a medium strength relationship, and a value between 0.50 and 1.0 indicate a strong relationship.

As indicated in Table 4.32, there is a statistically positive relationship between black Generation Y students' attitudes towards personal financial planning and their perceived personal financial management skills ($r = 0.514$, $p = 0.000 < 0.05$). Therefore, for the relationship between personal financial planning and perceived personal financial management skills, the null hypothesis, *Ho11*, is rejected and the alternative, *Ha11*, concluded. This suggests that the more positive attitude the participants have towards personal financial planning, the greater their perceived personal financial management

skills. The correlation value of the relationship between personal financial planning and perceived personal financial management is in the range of 0.50 and 1.0, indicating a strong relationship between these scales. No significant relationship was found between personal financial planning and financial literacy ($r = 0.069$, $p = 0.175 > 0.05$), as well as between financial literacy and perceived personal financial management skills ($r = -0.058$, $p = 0.259 > 0.05$). As such, for the relationship between personal financial planning and financial literacy as well as the relationship between financial literacy and perceived personal financial management skills, the null hypothesis, *Ho11*, cannot be rejected at the 5 percent significance level.

4.6 SYNOPSIS

This chapter presented the results gathered from the empirical portion of the study and comprised five sections. In the first section, Section 4.2, results concerning the pilot test of the study were outlined, with specific to reference to reliability and validity analysis. In Section 4.3, preliminary data analysis, comprising coding, tabulation and the data collection process, was discussed. The third section, Section 4.4, presented the descriptive analysis, which consisted of demographic information, reliability and validity of the scales, descriptive statistics and the participants' attitudes towards personal financial management, their financial literacy and their perceived personal financial management skills. The last section, Section 4.5, outlined the tests of significance used to test the hypotheses formulated for this study. These tests include t-tests, ANOVA and correlation analysis. In the succeeding chapter, Chapter 5, a summary of the study concerning the contributions of the study, recommendations, limitations, and opportunities for future research are provided. Additionally, an overall conclusion regarding this study is included.

CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

"If you have knowledge, let others light their candle with it." – Winston Churchill

5.1 INTRODUCTION

In an economy characterised by high interest rates, inflation, unemployment, political instability and various other economic downfalls, individuals' money matters are constantly under threat. Personal financial management, with reference to personal financial planning, financial literacy and personal financial management skills are recognised interventions to secure a promising and stable financial standing, in both the short- and long-term, and may combat the adverse effects of these economic factors (Section 1.1). In order to increase engagement in (Section 2.2.4), and enjoy the benefits associated with personal financial planning (Section 2.2.5), it is essential that Generation Y members (Section 2.6) possess the necessary financial knowledge and skills (Section 2.5). The challenge lies in attaining the essential financial knowledge and skills, as a result of the absence of personal finance content in school and university curricula. Consequently, many students face the obstacle of managing their financial resources with minimal knowledge and skills, and make ineffective short and long-term financial decisions, ultimately leading to financial problems (Section 2.5.3) and incorrect measurement and assessment of personal financial performance (Section 2.3). This emphasises the importance of managing and planning personal finances within various personal financial planning areas (Section 2.2.6). By analysing attitudes towards personal financial planning, determining the level of financial literacy, and establishing perceptions towards personal financial management skills, the consumer's personal financial management needs can be determined and the focus of curricula can be established (Chapter 2).

Financial institutions, facilitating the flow of money through the economy such as banks, insurance companies, pension funds and brokerage companies, face various challenges in marketing financial products and services, especially to the younger generation. As such, financial institutions have to be innovative in an attempt to address the financial needs

and appeal to the new Generation Y consumer. The Generation Y consumer is regarded as the future of South Africa and their attitude towards personal finance is expected to shape the continually changing financial and economic environment, especially concerning personal financial management (Sections 2.6 & 2.6.1). Accordingly, this study sought to measure attitudes towards personal financial planning, establish a financial literacy level, in the context of personal financial planning, and determine perceptions towards personal financial management skills within the South African context. Specifically, the study focused on black Generation Y students because first, the future of the financial and economic environment are represented by the youth, secondly, the vast majority of the South African Generation Y population comprise African members and thirdly, individuals with a tertiary qualification generally act as opinion leaders and trendsetters amongst their peers (Section 2.6).

Therefore, the primary objective for this study, as stated in Chapter 1, was formulated as:

Investigate black Generation Y students' knowledge of and attitudes towards personal financial management within the South African context

Subsequently, this primary objective was deconstructed into five theoretical objectives (Section 1.3.2) and seven empirical objectives (Section 1.3.3).

In this chapter, an overview of the study is provided (Section 5.2), as well as the main findings (Section 5.3) on which the recommendations (Section 5.4) are based on. The chapter comprises contributions made by the study (Section 5.5), an outline of the limitations, as well as suggestions for future research opportunities (Section 5.6). Concluding remarks end the chapter (Section 5.7).

5.2 OVERVIEW OF THE STUDY

Appropriate recommendations based on this study are provided in collaboration with the insights gained from the previous four chapters.

In Chapter 1 the study is introduced (Section 1.1) and a summary of the problem statement is provided (Section 1.2), accentuating the need for conducting this study and explaining why black Generation Y students were specifically used. Moreover, Chapter 1 set out the primary objective of the study, together with the formulated objectives

(Section 1.3) and hypotheses (Section 1.4). The proposed research design and methodology of the study (Section 1.5) are reviewed briefly, and the ethical considerations (Section 1.6) of the study are described.

Chapter 2 comprises a literature review regarding the theoretical objectives formulated in Chapter 1. In an attempt to create a better understanding of how personal finances should be managed and planned, the elements of the personal financial management process are considered (Section 2.1). Personal financial management comprises personal financial planning; this chapter includes a discussion on personal financial planning, with respect to its definition (Section 2.2.1) and an overview (Section 2.2.2). In addition, the personal financial planning life cycle is reviewed, owing that each individuals' personal financial planning situation is unique (Section 2.2.3). Successful personal financial planning, regardless at which financial life cycle stage individuals are currently at, requires following a financial planning process (Section 2.2.4), from which several benefits can be enjoyed (Section 2.2.5). Therefore, planning and managing finances should be directed at the various personal financial planning areas (Section 2.2.6), financial performance should be measured and assessed (Section 2.3), and fundamental personal financial management principles (Section 2.4) should be considered. In addition, financial literacy (Section 2.5), the target population of the study, namely the Generation Y cohort (Section 2.6), and the role consumer behaviour plays in personal finances (Section 2.6.1) are included in this chapter.

Chapter 3 comprises a description of the research methodology employed in this study. The study made use of descriptive research design (Section 3.2) and a quantitative research approach was followed (Section 3.3). Within the sampling procedure (Section 3.4), the target population was defined as black Generation Y full-time students between the ages of 18 and 24 years, enrolled at registered public South African HEIs during 2013 (Section 3.4.1). The sampling frame for this study consisted of the 23 South African public HEIs, from which one sample was selected conveniently from two HEIs located in the Gauteng province. This sampling frame comprised one traditional university and a university of technology (Section 3.4.2). Subsequently, a non-probability convenience sample of 500 black Generation Y students was taken (Sections 3.4.3 and 3.4.4). The drop-off survey method, utilising a standardised self-administered questionnaire, was employed to collect the required data (Section 3.5). Furthermore, pre-testing of the

questionnaire (Section 3.6), administration of the questionnaire (Section 3.7), preliminary data analysis (Section 3.8) and statistical analysis (Section 3.9) were discussed.

Chapter 4 reports on the analysis and interpretation of the empirical portion of the study, in accordance with the empirical objectives formulated for this study.

5.3 MAIN FINDINGS OF THE STUDY

The main findings of this study, in accordance with the empirical objectives formulated in Chapter 1, are as follows:

5.3.1 Black Generation Y students' attitudes towards personal financial planning

The first empirical objective set out in Chapter 1 was to determine black Generation Y students' attitudes towards personal financial planning, such as the financial planning process, credit planning, insurance planning, investment planning, and retirement and estate planning. However, based on the low reliability of the retirement construct during the main study, it was excluded from hypotheses testing. A single-tailed, one-sample t-test, where the expected mean was set at mean >3, was employed to determine empirically the outcome of this objective. As is evident from Table 4.20 (Section 4.5.1.1) black Generation Y students appear to have a statistically positive attitude towards the financial planning process, credit planning, insurance planning, investment planning and estate planning. However, considering the means as presented in Table 4.15 (Section 4.4.3), the students' reported attitudes towards the financial planning process (Section 2.2.4) were rated the lowest, followed by credit planning (Section 2.2.6.1), insurance planning (Section 2.2.6.2) and investment planning (2.2.6.3). Students' reported attitudes towards estate planning (Section 2.2.6.5) were rated the highest. These findings are contradictory to the findings of Boon *et al.* (2012), as they found that attitudes towards insurance planning were ranked the highest.

5.3.2 Black Generation Y students' attitude differences towards personal financial planning according to their demographic profiles

The second empirical objective formulated in Chapter 1 aimed at determining whether black Generation Y students' attitudes towards personal financial planning differ according to their demographic profiles such as gender, year of study and source of income. One-way ANOVA was used to determine empirically the outcome of this objective. As indicated in Table 4.21 (Section 4.5.1.2), this study found statistically significant differences between male and female students, and the financial planning process and investment planning. For the remaining constructs and gender, no statistically significant differences were found. As shown in Tables 4.22 and 4.23 (Section 4.5.1.2), this study found no statistically significant differences between the personal financial planning constructs and demographic profiles such as year of study and primary source of income, respectively.

5.3.3 Black Generation Y students' financial literacy differences in all the constructs of financial literacy

The third empirical objective set out in Chapter 1 focused on determining whether there were any differences in black Generation Y students' financial literacy scores, in the context of personal financial planning, pertaining to general financial knowledge, saving, spending and debt. A paired sample t-test, where the mean values were calculated from the financial literacy constructs score and converted into percentages, was conducted to determine empirically the outcome of this objective. As shown in Table 4.24 (Section 4.5.2.1), statistically significant differences were recorded on Pair 1 (general financial knowledge and saving), Pair 2 (general financial knowledge and spending), Pair 3 (general financial knowledge and debt), Pair 4 (saving and spending) and Pair 6 (spending and debt) of financial literacy. For Pair 5 (saving and debt), no statistically significant difference was recorded. The means of each construct confirmed that black Generation Y students have different financial literacy knowledge (Section 2.5) for different constructs of financial literacy. Previous research studies (Chen & Volpe, 1998; Louw, 2009; Symanowitz, 2006) found similar findings.

5.3.4 Differences between black Generation Y students' financial literacy and their demographic profiles

The fourth empirical objective formulated in Chapter 1 was to determine whether black Generation Y students' level of financial literacy, in the context of personal financial planning, differs according to their demographic profiles such as gender, year of study and source of income. One-way ANOVA was undertaken to test empirically the outcome of this objective. As is evident from Table 4.25 (Section 4.5.2.2), this study found no statistically significant differences between the financial literacy of male and female students. This finding is contradictory with a number of previous studies (Chen & Volpe, 2002; Danes & Hira, 1987; Edwards *et al.,* 2007; Falahati & Paim, 2011c; Goldsmith & Goldsmith, 2006; McKenzie, 2009; Van Rooij, 2011; Volpe *et al.,* 1996) as they found that men have higher financial literacy than women do. A study conducted by Norvilitis (2006) found that women performed better in financial literacy than men did. This finding is, however consistent with the findings of Symanowitz (2006). Table 4.26 indicated that there is a statistically significant difference between spending and debt financial literacy and first- second- and third year students. This finding is consistent with a study conducted by Chen and Volpe (1998), as they found that students with more years of tertiary education had higher financial literacy scores than students with fewer years of tertiary education. As shown in Table 4.27, this study found no statistically significant difference between financial literacy and source of income. This finding is consistent with a study conducted by McKenzie (2009).

5.3.5 Black Generation Y students' perceived personal financial management skills

The fifth empirical objective set out in Chapter 1 was to determine whether black Generation Y students perceive themselves as being skilled in personal financial management. A one-sample t-test, where the expected mean was set at mean >3, was conducted to determine empirically the outcome of this objective. As indicated in Table 4.28 (Section 4.5.3.1), black Generation Y students seem to perceive themselves as being skilled in personal financial management. However, evidence in the sample shows that their high perceptions towards financial skills are contradictory with their low levels of financial literacy. Figure 4.4 (Section 4.4.5) illustrated that their decision-making skills were ranked the highest in terms of financial skills level, and the lowest in terms of stress

management skills. These findings are contradictory with the findings of a study conducted by Falahati, Paim *et al.* (2011). They found that only 5 percent of the students perceived themselves as financially skilled and that a high need for career planning skills and a low need for credit/debt management skills existed.

5.3.6 Differences between black Generation Y students' perceived personal financial management skills and their demographic profiles

The sixth empirical objective formulated in Chapter 1 was to determine whether black Generation Y students have different perceived personal financial management skills for different demographic profiles. One-way ANOVA was used to determine empirically the outcome of this objective. As shown in Tables 4.29 and 4.30 (Section 4.5.3.2), this study found no statistically significant differences between personal financial management skills and the demographic profiles of gender and year of study. A study conducted by Falahati, Paim *et al.* (2011) found that male students are generally more skilled than female students are, which is contradictory with the findings of this study. As is evident from Table 4.31, this study found a statistically significant difference between perceived personal financial management skills and primary source of income, indicating that students receiving income from parents/guardians or sponsors/corporates, government, a part-time job or spouse, might have different perceptions towards personal financial management skills.

5.3.7 Relationship between black Generation Y student's attitude towards personal financial planning, their financial literacy and their perceived personal financial management skills

The seventh empirical objective formulated in Chapter 1 aimed at determining the relationship between black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills. Correlation analysis was conducted to determine this relationship. As is evident in Table 4.32 (Section 4.5.4), a statistically significant positive relationship was recorded between personal financial planning and perceived personal financial management skills. No relationship was found between personal financial planning and financial literacy, as well as between financial literacy and perceived personal financial management skills. A study

conducted by Lusardi and Mitchell (2011) found that financial literacy is strongly and positively associated with financial planning, which is contradictory with the findings of this study.

5.4 RECOMMENDATIONS

The succeeding recommendations are based on the insights gained from the previous chapters, which comprise a literature review as well as the empirical findings obtained from the South African black Generation Y student sample pertaining the attitudes towards personal financial planning, financial literacy and perceived personal financial management skills.

5.4.1 Recommendations pertaining to personal financial management

This study concluded that black Generation Y students have positive attitudes towards personal financial planning, such as the financial planning process, credit planning, insurance planning, investment planning and estate planning. As such, financial institutions, including banks, insurance companies, investment companies, and any other institution involved in personal finance, have to capture the Generation Y consumers utilising appropriate technology. The Generation Y consumer, especially black consumers, represent a significant portion of South Africa's youth and is likely to shape the financial and economic environment of the country, be in possession of the largest portion of the country's wealth and epitomise the future of financial services consumption, such as safeguarding their assets, acquiring credit for purchasing properties and saving for their children's education. Moreover, with a tertiary qualification, Generation Y students will possibly become opinion leaders and financial trendsetters, with a high expected earning potential. By taking into account the considerable size of this market, and its tendency to make use of technology to undertake personal financial management, financial institutions must make use of this opportunity and start planning for the future. This can be done by becoming knowledgeable at marketing to Generation Y consumers and utilising technology that is appealing and familiar to them such as online messaging, social networking (Facebook, Twitter, Instagram) and targeting financial products and services to mobile phones.

It is recommended that financial institutions develop a full assortment of integrated Internet and online account payment products; given that, Generation Y consumers are

likely to make use of online banking to settle accounts. As the results of this study indicate, black Generation Y students have a positive attitude towards credit planning. Therefore, this generation cohort could likely be ready to consume these financial products and services when paying accounts and managing finances.

By establishing personal financial management platforms, assistance is provided to Generation Y consumers in viewing their combined balances from all the various financial institutions on one dashboard, which subsequently assists them with budgeting and controlling spending, and helps with the attainment of financial goals. Owing to Generation Y consumers, including students, still developing financial management habits, these personal financial management platforms should be simple and appealing with the purpose of enticing usage by Generation Y consumers.

Given that, the majority of Generation Y consumers make use of smart phones to satisfy their communication needs and to connect to the Internet (Cox *et al.*, 2008), financial institutions must be in a position to provide mobile banking services, including mobile services relating to personal financial management, in order to capture more of the Generation Y market. Mobile account transfer, by means of mobile devices, is likely to upsurge intensely, with Generation Y consumers possibly leading the way forward towards the acceptance of this functionality. Furthermore, paying accounts via mobile devices is also regarded as an essential evolving technology that will shortly permit mobile phones to be utilised universally as payment devices, and simplify the management of personal finances. By developing a mobile strategy and future targeted mobile marketing campaigns, the importance of personal financial management and available financial products and services pertaining to personal financial management can be accentuated.

With the purpose of researching financial products and services, whether it is insurance products, investment vehicles, or services relating to estate planning, the likelihood that Generation Y consumers will go beyond using the financial institutions' Website is relatively high. Generation Y consumers are likely to turn to social networks to gather opinions of their peers regarding the financial products and services they plan to consume. As such, social media sites and applications can provide insights into black Generation Y consumers' personal financial needs and into what needs attention in delivering personal financial management services and products.

Generation Y consumers are not likely to visit financial institutions face-to-face, and as the results of this study indicate, the majority black Generation Y students prefer to implement their personal financial plans without the assistance of financial experts. Therefore, by making use of Web 2.0 as a marketing tool, Generation Y consumers are able to acquire all the necessary information without visiting the financial institution, and can undertake personal financial management with the assistance of a financial expert. Moreover, Facebook can be employed as a valuable tool for providing multimedia content, including videos on how certain aspects of personal financial management and planning should be done, and some helpful tips regarding investment opportunities, budgeting, debt management, retirement planning and other personal-finance-related topics.

Financial institutions can conduct online polls to determine Generation Y consumers preferred financial products and services, also which of these products and services require attention. This will give the financial institution an idea of how Generation Y consumers would likely approach personal financial management, and what they believe is important in this regard.

In this study, retirement planning was excluded for statistical analysis owing to its low reliability during the main study, suggesting that black Generation Y students might be unaware of the importance of planning for their retirement, and perhaps unknowledgeable of what retirement planning involves. As such, it is recommended that financial institutions provide Generation Y consumers information regarding retirement planning, accentuating the importance and benefits of saving for the future, as well as the consequences of starting too late with retirement planning.

Previous research has found that there is a difference between personal financial planning attitudes of males and females, with men displaying a positive attitude towards credit planning and being more confident about investment planning compared to their female counterparts. As indicated by the results of this study, gender did play a role in terms of personal financial planning attitudes. As such, it is recommended that financial institutions appeal differently to males and females when marketing financial products and services and in the attempt to get both genders involved in the process of effectively managing personal finances. For year of study and source of income, this study shows that these two demographic factors do not attribute towards any differences amongst the

black Generation Y consumers. Consequently, financial institutions should appeal similarly to Generation Y consumers with different years of tertiary education and different sources of income when employing marketing strategies to penetrate the financial services market.

Evidently, financial institutions need to make use of appropriate technology to reap the benefits of this immense opportunity before them of marketing to the vast multitudes of Generation Y consumers. It is important that financial institutions develop a thorough understanding of the way in which Generation Y consumers utilise technology to research and consume financial products and services, especially related to personal financial management, and strategies have to be established to fulfil these predilections. Financial institutions are likely to attract and retain Generation Y consumers by employing technological tools and marketing channels that appeal to them. This is important owing that this generational cohort will soon be interested in long-term banking solutions, investment opportunities, mortgage loans, retirement funds and other products and services to assist with managing personal finances. The following section provides recommendations concerning financial literacy and skills.

5.4.2 Recommendations pertaining to financial literacy and skills

As the results of this study shows, black Generation Y students possess low levels of financial literacy; however, they perceive themselves as being skilled in personal financial management. Therefore, there is a need by students to improve their financial literacy by means of financial literacy education and training. It is recommended that academics, government agencies and financial institutions pay attention to these needs and address them, such as through offering lectures. Furthermore, schools have a role to play in empowering students with the necessary financial literacy knowledge and skills. As such, it is recommended that financial literacy programs be introduced at school level to ensure that learners have some financial background when enrolling for tertiary education.

Even though this study found that black Generation Y students perceive they have the skills pertaining to financial management, it is recommended that academics, financial institutions and government agencies cooperate in providing support to students concerning their financial planning. Since Generation Y students have a positive attitude

towards investment planning, universities can teach personal financial management or financial life skills to Generation Y consumers, and financial institutions can market possible investments to attract this cohort, as they are encouraged to invest in the near future. This study found that the majority black Generation Y students are interested in receiving personal financial management information; conducting workshops and seminars, establishing financial counselling centres on campus, or providing financial literacy information on the university Website, can be implemented by universities in order to increase financial literacy and skills. In addition, a short course can be developed and implemented. However, critical thinking and decision-making processes must be incorporated with any financial literacy programme in order to apply the knowledge in a practical scenario, allowing for a complete understanding of the consequences of financial decisions. Financial literacy education and training should also focus around technology such as podcasts, and employing virtual online banking. In order to make financial literacy learning more practical and appealing to the Generation Y consumer, academics can use research projects, simulations and games, such as those developed by the Serious Games Institute of South Africa (SGI-SA), used to imitate real-life events, allowing the player of the game to find solutions for a number of problems that may arise.

This study found that black Generation Y students with different demographic profiles have different financial literacy knowledge and skills. Therefore, it is recommended that academics, financial institutions and government agencies identify and develop financial literacy programmes or games that will satisfy the financial educational and skill needs of the Generation Y consumers with different financial literacy and skills. This could be especially effective for Generation Y consumers that have different years of tertiary education and different primary sources of income, given the results of this study. This study found that the difference between black Generation Y male and female students' financial literacy and skills were statistically insignificant, suggesting the same financial literacy knowledge and skills. As such, it is recommended that Generation Y males and females be approached similarly in an attempt to improve their financial literacy and skills. Overall, it is recommended that any educational programme, game, or any other technological tools employed to teach financial literacy, include topics such as general financial knowledge, saving, and spending and debt, as the results of study indicated that black Generation Y students performed poorly in these areas of financial literacy. In the following section, the contributions of this study are discussed.

5.5 CONTRIBUTIONS OF THE STUDY

South Africans do not exhibit a saving behaviour, and excessive debt is taken on, most of the time at a high interest rate and unsecured. This careless comportment can be attributed to a lack of personal financial management and planning, financial illiteracy and being unequipped with the necessary financial skills to manage and plan financial matters successfully. Through identifying the areas of personal financial planning, the students have a more positive attitude, and by being aware of their financial literacy level and financial skills, financial institutions and other role players are equipped with valuable information on how to approach consumers of this generational cohort. The methods financial institutions make use of in marketing financial products and services have become critical in addressing the financial needs of the upcoming generations. Therefore, this study will make a significant contribution towards knowing what the financial needs of the Generation Y consumer are and how to satisfy these needs. Furthermore, this study contributes towards the body of knowledge associated with financial attitudes of university students.

The black Generation Y students have a high earning potential and are regarded as the future Black Diamonds, which makes them a considerably lucrative target market for financial institutions. Through better understanding students' attitudes towards personal financial management, financial skills and fostering their financial knowledge, the results of this study may aid in creating awareness of certain shortfalls in South African black Generation Y students' personal financial management. This in turn will aid academics and professionals in gauging effective ways to convey financial knowledge and product information to this target market to deliver improved financial service. This is likely to benefit the nation as a whole.

Furthermore, the study identified that students are in need of financial training and education in the areas of personal financial planning, which will also assist in the development of financial skills and increased financial literacy. Schools, universities, financial institutions and government agencies can review the results of this study as a guide for curriculum development and short-courses relating to personal financial management, which may likely lead to enhanced personal financial management, increased financial literacy and skills, as well as an improved and sustainable economy, less financial stress and a better standard of living. In addition, the importance of

retirement planning can be accentuated. Moreover, this study evaluated financial literacy levels between different demographic profiles, as well as identified the financial literacy areas of general financial knowledge, saving, spending and debt, in which black Generation Y students seem to be somewhat knowledgeable. Schools, universities and government agencies can utilise the findings pertaining to financial literacy to implement in curriculum development.

5.6 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

This study employed a quantitative research approach. The results provide the reader with an evaluation of black Generation Y consumers' attitudes towards personal financial planning, their financial literacy and their perceived personal financial management skills. Like most studies, several limitations can be identified within this study, consequently presenting several opportunities for future research.

This study did not investigate the reasons why students have these particular attitudes towards the different constructs of personal financial planning. Furthermore, a qualitative research approach could be followed to determine the reasons why the students have these particular attitudes. This study focused on, and was limited to, specific areas of personal financial planning (Section 2.2.6), specific constructs of financial literacy (refer to Table 3.3) and specific personal financial management skills (refer to Table 3.4). This provides an opportunity to investigate consumers' attitudes towards other areas of personal financial planning not measured within this study, such as emigration planning, income tax planning, offshore investments, starting a business, purchasing a business or purchasing a franchise, and purchasing a residence and/or fixed property. Other financial literacy topics not included in this study can be used to determine the financial literacy levels of individuals such as investment, banking and taxation, and interest rate and inflation financial literacy questions. In addition, other personal financial management skills not measured in this study can be used to determine consumers' perceptions towards personal financial management skills, such as interaction skills, adapting to change, and communication skills. Further studies could also be conducted to determine significant differences between attitudes, financial literacy levels and perceptions for different faculties, students with business and non-business majors, students with

different home languages and students who live on campus versus those living off campus.

Within this study, a non-probability convenience sampling approach was applied to survey the study's participants. Therefore, there is a necessity to take care in interpreting the results (Section 3.4.3). Furthermore, the study lacks the accurateness of a longitudinal study since this study made use of a single cross-sectional design (Section 3.2).

Also within this study, participants from only two HEIs, situated in the same province, formed the sample (Section 3.4.2). Therefore, there is an opportunity to carry out the same study in other HEIs across the nine provinces of South Africa to gain a more in-depth understanding and draw comparisons of black Generation Y students' attitudes towards personal financial planning, their financial literacy and their perceptions towards personal financial management skills.

Only full-time undergraduate students attending HEIs were the central participants of this study. This provides an opportunity to draw comparative conclusions by uncovering the attitudes, financial literacy and perceptions of part-time and post-graduate students who might be employed, and are already engaging in the process of personal financial management. Similarly, the study could be conducted on the non-student portion of the South African black Generation Y cohort to establish whether there is a difference in attitudes, a financial literacy gap and differences in perceptions. Moreover, the focus was on Generation Y and the members of this cohort. In addition, only students between the ages of 18 and 24 were included in this study. This presents an opportunity to determine younger black Generation Y members' attitudes, financial literacy and perceptions, as well as those members from other generations, whereby differences can then be identified.

The focused designated group for this study was black Generation Y students, excluding students from any other designated groups. It would be interesting to establish whether there are any differences between different ethnic groups, in terms of attitudes, financial literacy and perceptions.

5.7 CONCLUDING REMARKS

It is evident that personal financial management and planning, together with financial literacy and financial skills, has become the centre of attention among various economic role players. High debt levels, low levels of savings, financial stress, bankruptcies and non-existent retirement funds are challenges faced by individuals because of ineffective and unknowledgeable financial decisions. Consequently, the economy as a whole is affected. Evidence shows that, worldwide, these economic role players are failing in furnishing individuals with the necessary financial literacy and skills to make a success of their personal financial management. It is the responsibility of these role players (schools, universities, financial institutions and government) to contribute towards a more stable financial environment by means of financial education and training. Furthermore, a personal financial management module should be incorporated in curricula for all types of degrees.

The manner in which financial products and services are marketed by financial institutions can play a pivotal role towards emphasising the importance of personal financial management and planning, and the importance of improving financial literacy and skills. The present study expands on preceding research on personal financial management, financial literacy, and personal financial management skills to investigate the black Generation Y cohort within the South African context. As Generation Y consumers represent the future, it is essential to comprehend their attitudes towards personal financial planning, together with their financial literacy and skills, so as to develop strategies to address these issues and create a more stable financial and economic environment.

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ANNEXURE A

QUESTIONNAIRE COVER LETTER

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
VAAL TRIANGLE CAMPUS

GENERATION Y STUDENTS' KNOWLEDGE OF AND ATTITUDES TOWARDS PERSONAL FINANCIAL MANAGEMENT

I am currently working towards my dissertation under the supervision of Dr N. De Klerk and Prof. Ayesha Bevan-Dye as part of the requirements for completing my M.Com in Business Management at the North-West University (Vaal Triangle Campus).

The purpose of this research project is to determine Generation Y students' knowledge of and attitudes towards personal financial management and their financial management skills ability level.

It would be greatly appreciated if you could assist me by completing the attached questionnaire. The questionnaire is user-friendly and should take approximately 20 minutes to complete. All responses are confidential and the results will only be used for research purposes, outlined in the form of statistical data.

Thank you most sincerely. Your assistance and contribution will be highly appreciated.

Marko van Deventer

Department of Marketing & Business Management

School of Economic Sciences & IT

North West University (Vaal Triangle Campus)

ANNEXURE B

SURVEY QUESTIONNAIRE – SECTIONS A, B, C & D

Section A: Demographical Information.

Please mark the appropriate box with a cross (X).

A1	Name of your institution:	North-West University	Vaal University of Technology

A2	Province of origin:				
	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo
	Mpumalanga	Northern Cape	North West	Western Cape	

A3	Current year of study:	1st year	2nd year	3rd year	Postgraduate

A4	Degree/diploma (for example, B.Com: Marketing):	

A5	Gender:	Male	Female

A6	Ethnic group:	Black African	Coloured	Indian/Asian	White
	Other (Please specify)				

A7	Please indicate your mother tongue language:			Afrikaans	English
	IsiNdebele	IsiXhosa	IsiZulu	Sesotho sa Leboa	Sesotho
	Setswana	SiSwati	Tshivenda	Xitsonga	

A8	Age at your last birthday:	<18	18	19	20	21	22	23	24	25	25>

A9	Please indicate your primary source of income:		
	Parents/Guardians	Sponsor/Corporate	Government
	Other (Please specify)		

Section B: Personal financial planning.

Please indicate the extent to which you disagree/agree with each of the following statements using a cross (X) to mark the appropriate box, where 1=strongly disagree and 6=strongly agree.

		Strongly disagree	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly agree**
1.	I know what personal financial planning is.	1	2	3	4	5	6
2.	I set personal financial goals and objectives in my life.	1	2	3	4	5	6
3.	I gather relevant data and analyse my current personal financial position before I make a financial decision (i.e. buying CDs / gifts; planning a vacation).	1	2	3	4	5	6
4.	I implement my personal financial plan with the help of experts (i.e. asking a financial advisor from a bank).	1	2	3	4	5	6

		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
5.	I review my personal financial plan regularly to take into account my changing needs and circumstances (i.e. an increase/decrease in my monthly allowance).	1	2	3	4	5	6
6.	**Credit cards** are convenient because you can buy anything anytime.	1	2	3	4	5	6
7.	I pay off the full outstanding amount on my accounts every month (i.e. clothing / bookstore, etc. accounts).	1	2	3	4	5	6
8.	I pay all my accounts on time each month (i.e. phone, clothing, bookshop, etc. accounts).	1	2	3	4	5	6
9.	I avoid maxing out or going over the limit on my accounts (i.e. phone, clothing, bookshop account).	1	2	3	4	5	6
10.	Personal loans offered by financial institutions are a convenient tool for me to use – I can borrow money for any reason at any point of time.	1	2	3	4	5	6
11.	I can carefully list my needs for life insurance.	1	2	3	4	5	6
12.	I can do adequate comparison shopping for life insurance.	1	2	3	4	5	6
13.	I plan to have enough life insurance to ensure that if I were to pass away / become sick / disabled, my family and I would not suffer financially or be financially disabled.	1	2	3	4	5	6
14.	I think life insurance is the most important type of insurance.	1	2	3	4	5	6
15.	I can distinguish the different types of insurance policies offered in the market.	1	2	3	4	5	6
16.	I feel investing money is important.	1	2	3	4	5	6
17.	I have a specific investment plan for reaching my financial goals.	1	2	3	4	5	6
18.	Before investing, I would consider the opinion of friends and/or family.	1	2	3	4	5	6
19.	I understand my risk profile (i.e. whether I am a high-risk-taker, medium-risk- taker or a low-risk-taker).	1	2	3	4	5	6
20.	I plan to invest in different investment instruments with minimal knowledge and research (i.e. shares, unit trusts, real estate, bonds).	1	2	3	4	5	6

		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
21.	The principal of compound interest encourages me to invest.	1	2	3	4	5	6
22.	If I were given a lot of money to invest, I would know exactly what to do with it.	1	2	3	4	5	6
23.	Before investing, I would carefully study the alternatives, considering them according to the criteria I've set, and make the final decision only after careful deliberation.	1	2	3	4	5	6
24.	I have a general understanding of the amount of money I will need to retire comfortable one day.	1	2	3	4	5	6
25.	I have started planning for my retirement.	1	2	3	4	5	6
26.	I think it is important to consult with a professional financial planner when planning your retirement.	1	2	3	4	5	6
27.	I think it is important for me to have a will (a legal document declaring a person's wishes regarding the disposal of their property when they pass away).	1	2	3	4	5	6
28.	Estate planning (a plan to take care of your personal and financial matters should you pass away) is important.	1	2	3	4	5	6
29.	I believe setting up a family trust is an important part of estate planning.	1	2	3	4	5	6
30.	Having estate planning will give me peace of mind if I were to pass away.	1	2	3	4	5	6

Section C: Financial literacy.

Please choose only ONE answer for each of the following questions. Please mark each question with a cross (X).

1. Many people save money for unexpected expenses. If Thabo and John save money for emergencies, which of the following would help them the LEAST if they needed it right away?

a.	savings account	
b.	shares	
c.	cheque account	
d.	invested in a deposit on the house	

2. Which of the following is true about VAT?

a.	the government will deduct VAT from your paycheque	
b.	the national VAT percentage rate is 6%	
c.	VAT makes things more expensive for you to buy	
d.	you do not have to pay VAT if your income is very low	

3. The main forms of income for most people aged between 20-35 years old are:

a.	salaries, wages, tips	
b.	profits from business	
c.	dividends and interest	
d.	rents	

4. Thembi and Sara work in the finance department of the same company and earn the same salary. Thembi spends her free time doing work-related courses to improve her computer skills; Sara spends her free time going out and exercising at a gym. After five years what is likely to be true?

a.	Thembi and Sara will still earn the same salary	
b.	Thembi will earn more money because her company values her more than Sara	
c.	Sara will earn more because Thembi will probably be fired	
d.	Sara will earn more because she goes out more than Thembi	

5. Michael and Christina want to put money away for their baby's education. Which of the following usually grows the most over 18 years or more?

a.	a government bond	
b.	shares	
c.	a savings account	
d.	a cheque account	

6. If the following people each got the same income after tax, who would need the most life insurance?

a.	a young married man without children	
b.	an elderly retired man, with a wife who is also retired	
c.	a young single woman with two young children	
d.	a young single woman without children	

7. Inflation can create problems in many ways. Which group of people would suffer the most when inflation rates are high for a few years?

a.	young couples who both work and have no children	
b.	young working couples with children	
c.	older, working couples saving for retirement	
d.	older people living on a fixed retirement income	

8. Lindiwe worked while at university, earning R150 000 per year. After she graduated from university, her first job pays R300 000 per year. The total Rand amount Lindiwe will pay in income taxes in her new job will:

a.	increase a little from when she was in university	
b.	double, at least, from when she was in university	
c.	stay the same as when she was in university	
d.	be lower than when she was in university	

9. Your take-home pay is less than the total amount you earn. What is USUALLY deducted of your total pay?

a.	Income tax, pension fund and medical aid contributions	
b.	Income tax, capital gains tax, medical aid and pension fund contributions	
c.	Pension fund and medical aid contributions	
d.	Income tax, sales tax and pension fund contributions	

10. Gary saved R9 000 for his university fees by working part-time. He starts university next year and needs all the money he saved. Which is the safest place for his money?

a.	locked in his cupboard at home	
b.	corporate bonds	
c.	shares	
d.	bank savings account	

11. Siphiwe has a job with a take-home pay of R15 000 per month. Each month he pays R7 500 for rent and R1 500 for groceries. He also spends R1 000 per month on transport. If he budgets R1 000 per month for clothing, R1 000 for entertainment and R500 for everything else, how long will it take him to build up savings of R7 500?

a.	3 months	
b.	4 months	
c.	5 months	
d.	6 months	

12. Which is true regarding the interest that you could earn on a bank savings account?

a.	you cannot earn interest until you reach your 18th birthday	
b.	income tax may be charged on the interest if your income is high enough	
c.	VAT may be charged on the interest that you earn	
d.	earnings from savings account interest is not taxed	

13. Danny and Jackie are the same age. At age 25 Danny began saving R2 000 a year while Jackie saved nothing. At age 50, Jackie realised that she needed money for retirement and started saving R4 000 per year while Danny kept saving his R2 000. Now they are both 75 years old. Who has the most money in his or her retirement account?

a.	Jackie, because she saved more each year	
b.	Danny, because he has put away more money	
c.	Danny, because his money has grown for a longer time at compound interest	
d.	they would each have the same amount because they put away exactly the same amount	

14. Which of the following credit-card-users is likely to pay the HIGHEST amount in bank charges per year if they all spend the same amount of goods per year on their credit cards?

a.	Tammy who only pays the minimum amount each month	
b.	Kylie who always pays off her credit card in full soon after she receives it	
c.	Michelle, who usually pays off her credit card in full but occasionally will pay the minimum when she is short of cash	
d.	Jody, who pays at least the minimum amount each month and more when she has money	

15. Thabo and Robbie are young men, each with a good credit history. They work at the same company and earn roughly the same salary. Thabo borrowed R25 000 to pay for his overseas holiday. Robbie borrowed R25 000 to buy a car. Who is likely to pay the lowest finance charge?

a.	they will both pay the same because the rate is set by law	
b.	they will both pay the same because they have almost identical financial backgrounds	
c.	Thabo will pay less because people who travel overseas are better risks	
d.	Robbie will pay less because the car is collateral for the loan	

16. Which one of the following is NOT usually linked with spending?

a.	call account	
b.	cash	
c.	credit card	
d.	debit card	

17. Which one of the following statements is true?

a.	if you missed a payment more than 2 years ago, it cannot affect a decision to give you a loan	
b.	people have so many loans it is unlikely that one bank will know what your history is with other banks	
c.	credit bureaus share the credit history of borrowers with banks and other lenders, and are likely to know about any loan payments that you have missed	
d.	your bad loan payment record with one bank will not be considered if you apply to another bank for a loan	

18. When would it be financially helpful for you to borrow money in order to buy something now and repay it with your future income?

a.	when interest on the loan is greater than the interest you get on your savings	
b.	when some clothes you like go on sale	
c.	when you really need a two-week holiday	
d.	when you need to buy a car to get a much better paying job	

Section D: Personal financial management skills ability level.

Please indicate the extent to which you disagree/agree with each of the following statements by placing a mark in the appropriate box; 1 being strongly disagree and 6 strongly agree.

		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
1.	I am skilled at managing my daily expenses.	1	2	3	4	5	6
2.	I am skilled at managing my credit/debt.	1	2	3	4	5	6
3.	I am skilled at managing my finances to provide for future needs.	1	2	3	4	5	6
4.	I am skilled at time management.	1	2	3	4	5	6
5.	I am skilled at stress management.	1	2	3	4	5	6
6.	I am skilled at managing my savings.	1	2	3	4	5	6
7.	I am skilled at negotiating with others.	1	2	3	4	5	6
8.	I am skilled at decision making.	1	2	3	4	5	6

		Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
9.	I am skilled at problem solving.	1	2	3	4	5	6
10.	I am skilled at career planning.	1	2	3	4	5	6

Which of the following media will you be interested in receiving personal financial management information from the university?

University Web site	Lecture	Workshop	Financial education centre	No, don't send me information

Thank you very much for your participation!

ANNEXURE C

MULTIPLE COMPARISONS – TUKEY HSD

Dependent Variable		(I) A3_ Year	(J) A3_ Year	95 % Confidence Interval		Mean Difference (I-J)	Std. Error	P Value
				Lower Bound	Upper Bound			
Spending (Construct C3)	Tukey HSD	1	2	-0.337	0.195	-0.071	0.113	0.805
			3	-0.607	-0.123	-0.365	0.102	0.001*
		2	1	-0.195	0.337	0.071	0.113	0.805
			3	-0.571	-0.017	-0.294	0.117	0.035*
		3	1	0.123	0.607	0.365	0.102	0.001*
			2	0.017	0.571	0.294	0.117	0.035*
Debt (Construct C4)	Tukey HSD	1	2	-0.478	-0.043	-0.260	0.092	0.014*
			3	-0.561	-0.166	-0.363	0.084	0.000*
		2	1	0.043	0.478	0.260	0.092	0.014*
			3	-0.329	0.124	-0.102	0.096	0.538
		3	1	0.166	0.561	0.363	0.084	0.000*
			2	-0.124	0.329	0.102	0.096	0.538
Dependent Variable		(I) A9_ Income	(J) A9_ Income	95 % Confidence Interval		Mean Difference (I-J)	Std. Error	P Value
				Lower Bound	Upper Bound			
Skills (D1-D10)	Tukey HSD	1	2	0.056	0.732	0.394	0.130	0.015*
			3	-0.258	0.232	-0.013	0.095	0.999
			4	-0.756	0.558	-0.099	0.254	0.980
		2	1	-0.732	-0.056	-0.394	0.130	0.015*
			3	-0.794	-0.020	-0.407	0.149	0.035*
			4	-1.215	0.228	-0.493	0.279	0.293
		3	1	-0.232	0.258	0.013	0.095	0.999
			2	0.020	0.794	0.407	0.149	0.035*
			4	-0.770	0.597	-0.086	0.265	0.988
		4	1	-0.558	0.756	0.099	0.254	0.980
			2	-0.228	1.215	0.493	0.279	0.293
			3	-0.597	0.770	0.086	0.265	0.988

* Significant at $p < 0.05$