University of Venda

Analysis of Financial Literacy amongst University Students: A Case Study of the University of Venda

Research Dissertation

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By

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Abstract

This study assesses the level of financial literacy and its impact on financial decision making exercised by the tertiary students in South Africa, using the University of Venda (Univen) as a case study. The study does this in three steps. First, it provides the financial literacy levels of students at Univen assessed through an evaluation score that the sampled students responded to. Second, it analyses the relationship between the demographic and socio-economic characteristics of students and their financial literacy levels. Third, it assesses the possible effects of financial literacy on financial decision making among students using correlation and regression analysis. The study uses primary data gathered by the author from the University of Venda registered students in the form of questionnaires. A stratified random sampling method was used to identify the students to form the sample of the study, which is 373. Percent slightly above 50 per cent of these students were found to be financially literate and there were more female students who were financially literate compared to male counterparts. Using the odds ratios, the study compared the financial literacy levels of all schools to the school of Management Sciences, respectively. Only students in Environmental Sciences and Law have higher literacy levels, which are statistically significant, compared to the students in the school of Management Sciences. The results also show that the age and the parent's educational background have a statistically significant relationship with the student being financial literate. Furthermore the results indicate that there is a statistically significant relationship on good financial decision making (that is, budgeting, savings and investments) and being financial literate, compared to being financial illiterate. This result is not true when borrowing is used as a measure of financial decision making.

Key words: *financial literacy, financial decision making, financial education, University of Venda, Regression, Correlation*

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Declaration

I, Mudzanani Ronewa Victor, (student number 11573171) declare that the research dissertation titled: *The analysis of financial literacy among University students: case study of the University of Venda*, and the work presented in it are my own work. I confirm that it has not been previously submitted for another degree at this or any other university, and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signature: …….

Date : …….

List of Abbreviation

ASIC	Australian Securities and Investment Commissions
BASA	Banking Association South Africa
CED	Consumer Education Department
CFE	Consumer Financial Education
DTI	Department of Trade and Industry
EMS	Economic and Managerial Sciences
FD	Financial Decision
FET	Further Education and Training
FL	Financial Literacy
FSB	Financial Services Board
GDP	Gross Domestic Products
HSS	Human and Social Sciences
IPQA	Institution for Planning and Quality Assurance
LSM	Living Standard Measures
MFRC	Microfinance Regulatory Council
NCEE	National Council on Economic Education
NCFE	National Consumer Financial Education
NCR	National Credit Regulator
NGO	Non-Government Organizations
OBE	Outcome Based Education
OECD	Organisation for Economic Co-operation and Development
PACFL	President's Advisory Council on Financial Literacy
PISA	Pragramme International Student Assessment
SACC	South African Council of Churches
SADC	Southern African Developing Community
SAIA	South Africa Insurance Association

SAICA	South African Institute of Chartered Accountants
SARB	South Africa Reserve Bank
TCTS	Teach Children to Save South Africa
TFSA	Tax Free Savings Accounts
TV	Television
USA	United States of America
USD	United States Dollar

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Dedication

To my family

Chapter one

1.1. Introduction

Changes and complexities in financial markets have increased the necessity for more knowledge and competent financial administration by users. Many financial options that have resulted from these changes make it even more complicated to make financial decisions that may improve the utility of users. (Consumer and financial Literacy Taskforce, 2004). Users therefore need to be financially literate and competent enough to make sound financial decisions, which permits improved control and forecasting of life events such as education, housing purchase, or retirement planning (ASIC, 2011; Mahdzan and Tabiani, 2013).

While financial literacy is a crucial factor touching individuals, households, monetary institutions and the economy as a whole (Oseifuah and Gyekye, 2014), there is a lack of consensus on its definition. Hogarth (2002) defines financial literacy as the handling of money by people and financial choices in terms of insuring, investing, savings and budgeting. Lusardi and Mitchell (2014) define financial literacy as people's ability to develop economic information and make educated choices about financial preparation, fortune accumulation, debt, and savings. Worthington (2006b), argues that financial literacy means lots of different things to different people, and this is reflected by numerous definitions of financial literacy.

Some authors approach financial literacy as a wide concept that deals with finance and how consumer choices get affected by different economic situations related to budgets and savings. For example, Worthington (2006a), as was similarly attributed by Hogarth (2002), concluded that for others, financial literacy concentrates fairly closely on basic cash management: budgeting, saving, investing and insuring. According to OECD (2012), financial literacy comprises of the awareness and knowledge about financial conceptions, as well as the ability to implement this knowledge to achieve effective decisions through a variety of financial contexts, thereby improving the financial welfare of individuals and society.

Amongst numerous definitions of financial literacy, the study will adopt the definition by Hogarth (2002), which defines financial literacy as the way in which people manage their finance in terms of insuring, investing, savings and budgeting. However, considering that the study targets students, a slight modification of this definition is necessary. Borrowing, instead of insuring, will be used because, based on the life-cycle hypothesis, it is not expected that the students will pursue insurance in their learning years, but rather they would save less, are spend and borrow more (Grobler, 2015).

The study also uses financial decision making to assess the conduct of students towards the selected variables (that is, borrowing, investing, savings, and budgeting) that constitute financial literacy in the context of this study. Consequently, financial decision making will be understood as the decisions taken by students based on investing, savings, budgeting and borrowing activities they have undertaken with the money they received.

Financial literacy can therefore have significant effects on financial decisions. For example, financial illiterate individuals are expected to have difficulties with liability (Lusardi and Turfano, 2009), and to be less likely to take part in the stock market, pick out mutual funds with lower fees, increase fortune and manage fortunes efficiently and plan for retirement (Lusardi and Mitchell 2006; Rooij, Lusardi and Alessie, 2007). In this regard, many young people desire to be more financially knowledgeable in order to cope with a financially dynamic world (Lusardi and Mitchell, 2006).

In a study by Hasane, Kumar and Shaari (2013), 84 percent of college students revealed that they desired more learning on financial administration matters, while 64 percent preferred to have received information about financial management topics in secondary school level, and 40 percent would have been keen on receiving such financial management information as college freshmen. To improve the financial literacy level, international and national regulators, specifically those in OECD countries, have had to embark on numerous research on financial literacy to determine the financial literacy levels of their population and use the results to introduce relevant financial literacy programmes (Mendes, 2013). The OECD (2012) study highlights the prominence of educating the current generation, since they are likely to be confronted by growing complication

and sophistication in financial products and to assist them to handle higher responsibility for retirement plans.

1.2. Problem Statement

In South Africa, economic realities and financial complications confronting many households have contributed to cumulative number of working students, as well as increased usage of credit cards and bank loans by students. In addition, university students, as potential labour market entrants in the near future, will have to know how to manage their potential earnings. Hasane *et al* (2013) argues that many university students stay away from home and parents, and depend on multiple sources of finance for their education and sustenance, and as a result they have to make financial decisions on how to manage their finances based on the level of their financial literacy. According to Swart (2005), South Africa is lacking financial education and financial training, which subsequently result in South African higher education institutions producing graduates into the world without adequate readiness for the financial challenges that await them.

Nationally, the South African savings culture poses a challenge in domestic capital mobilization for investment. The savings-GDP ratio is low, currently at 16 percent of GDP in comparison to its BRICS counterparts: 52 percent for China, 22 percent for Russia and 41 percent for India, except for Brazil with 14percent[1]. The saving rates are also well below the pre-1994 saving rate of 30 percent of GDP (Chipote, Mishi and Vacu, 2012).

This study attempts to add to the increasing literature (for example see Oseifuah and Gyekye, 2014) on financial literacy among college students and how their financial knowledge influences their financial decision making choices at the University of Venda. Swart (2005), found that South African tertiary institutions are producing graduates who do not possess enough financial literacy and are likely be faced with a challenge in financial decision making. A scientific enquiry on financial literacy is therefore necessary in South Africa. By assessing the financial literacy level of students, better understanding of the financial knowledge, habits and behaviors of the students

[1] https://data.worldbank.org/indicator/NY.GNS.ICTR.GN.ZS?end=2016&start=2007&year_high_desc=true

will be achieved and this will assist in the creation of necessary interventions to better prepare the students in making informed financial decisions.

1.3. The aim of the study

The aim of this study is to assess the level of financial literacy among Univen students and determine their ability to use their financial literacy to make sound/or effective financial decisions.

1.4. The specific objectives

The specific objectives are to:

1.4.1 Determine the level of financial literacy among the University of Venda students.

1.4.2 Evaluate how financial literacy is influenced by demographic and socio-economic attributes of students.

1.4.3 Establish the effect of financial literacy on financial decisions such as savings, investing, budgeting and borrowings.

1.5. Hypotheses

The hypothesis of the study are formulated and informed by extant literature as follows:

1.5.1. Higher level tertiary education students are more financially literate than lower level tertiary education students. This hypothesis is based on Atkinson and Messy (2012) who argue that highly educated individuals are more likely to exhibit positive behaviours and attitudes as well as show advanced levels of financial knowledge and literacy.

1.5.2. Students enrolled in the School of Management Sciences are more financially literate than students enrolled in other Schools. This hypothesis is informed by a finding from Mahdzan and Tabiani, (2013) who posit that commerce majors are more knowledge about personal finance than non-commerce majors.

1.5.3. There is a relationship between demographic, socio-economic status of a student and financial literacy. This hypothesis is built on Lusardi and Mitchell, (2014), who posit that demographic and socioeconomic status is a significant contributing factor of financial literacy even among high school students.

1.5.4. There is a correlation between financial literacy and financial decisions such as savings, budgeting, investing and credit use. This hypothesis is supported by a finding from (Chen and Volpe, 1998) who surveyed 924 undergraduate and graduate students at multiple universities. They found that college students who had higher financial literacy had better financial behaviors such as budgeting, spending less than their income, were more likely to invest regularly and have adequate insurance.

1.6. Justification of the study

A study of this nature is very important to inform any reader about financial planning. This is because financial decision making is necessary as soon as college students get access to a monthly allowance from their parents or guardians. Normally, students get to have a monthly allowance at a tertiary level and their financial decision making from that early age can determine how good or bad they would be when they start working. Since many of the tertiary students stay away from their parents, they make financial choices on whether to save, spend or invest based on their financial literacy (Hasan *et al.,* 2013). The financial decision making by tertiary students is very vital as it can shape their future wealth accumulation.

By analyzing the financial literacy and how it influences the decision making of the students, literacy levels can be determined and recommendations can be made on what course of action the government needs to make to help students, if need be, in financial decision making. South African academic institutions would be ignorant not to pay attention to a problem of low financial literacy, knowing that not much is being done to improve the financial knowledge and financial literacy levels. After all, tertiary institutions have always recognized their obligation in terms of community service and development, and financial literacy is one area where such obligations can be channeled. Therefore, further justification for the study is that before interventions by interested institutions can be premeditated, a detailed understanding of the requirements of students is significant (Louw, Fouché and Oberholzer, 2013). This study could also help the parents and students take corrective measures that can help them in their own finances. We find this necessary because so many people in South Africa are in debt and most of them are saving and investing less.

1.7. Delimitation and limitations

The study seeks to assess the level and impact of financial literacy on decision making by University of Venda students. The data will be collected only from registered students in different faculties of University of Venda.

Huston (2010) indicates that some literature and popular media have often used the terms financial literacy, financial knowledge and financial education interchangeably. Hilgert, Hogarth and Beverley (2003) in their study use the word financial knowledge interchangeably with the word financial literacy. The study understands financial knowledge as an important part of, but not equivalent to, financial literacy. Financial literacy has an extra application measurement that suggests that a person must be capable and have self-assurance to apply his/her financial knowledge to make financial decisions. As indicated already, for the purpose of this study, the definition of financial literacy will be as specified by Hogarth (2002), with slight modification to suit the targeted population age group.

Since the study will use the primary data in form of questionnaires that would be distributed to students of different faculties, the interpretation of questions by the respondents may potentially limit the quality of the data. Some of the respondents may feel less obliged to give the information. Due to time and other resources constraints, the study was limited to university students enrolled at the University of Venda only.

1.8. Organization of the study

Chapter one introduces the concept of financial literacy and provides a brief background of the study and a short literature review from different studies that have been carried out. The problem statement is also provided as well as the objectives of the study. This chapter also entails the limitations and the hypothesis of the study.

Chapter two provides an overview of financial education in South Africa. It identifies initiatives that have been taken by both public and private organizations for provision of financial education in South Africa and the outcomes of such initiatives on the level of financial literacy in South Africa.

The literature review is done in chapter three, starting with theoretical (behavioral) foundations of financial literacy, and then delving into the empirical studies that have been carried out on the subject in developed countries as well as in developing countries. The literature reviewed assist to understand the concept of financial literacy and issues related to it.

Chapter four details the methodology to be used in the collection and analysis of data, which is then used to derive findings that are discussed in the chapter five.

Chapter six concludes and provides recommendations based on the findings.

Chapter two: Financial education overview

This chapter discusses the financial education overview in South Africa. It demonstrates the high need for financial education in South Africa post 1994, after the first democratic general elections. The chapter also provides the background on some of the financial education initiatives that have been taken in South Africa with an aim of improving the level of financial literacy. The initiatives discussed include government, non-government organization (NGOs) and private sector programmes.

2.1. Financial Education overview

Financial education is a procedure by which financial customers/stockholders advance their knowledge of financial products and concepts. By acquiring information, teaching and/or objective advice, users of financial products grow the skills and self-assurance to become more alert of financial risks and prospects to make informed choices, know where to look for help, and act effectively on ways to improve their financial well-being.[2]

FinMark (2004) reports that in South Africa, financial literacy has received growing attention from a wide range of interested groups, financial institutions and government since the late 1990s. As a result, variety of different initiatives have been launched with an aim of improving the financial literacy of various target audience. South African Bill of rights outlines the right of all people in South Africa, including the consumer rights. Consumer education is one of the eight internationally recognized consumer rights. Under this right, "consumers need to attain knowledge and skills that are needed to make informed and confident choices about goods and services while being mindful of basic consumer rights and responsibilities and how to act on them"[3].

FinMark (2004) reports that the provision of the financial education programmes have seen the involvement of both the government and various non-profit organizations in South Africa. The

[2] https://www.mylifemymoney.co.za/Resources/Legislation%20Strategy%20and%20Policy%20Documents/National%20consumer%20financial%20education%20strategy%20(23%20Aug%202013).pdf

[3] www.dti.gov.za from the FinMark trust 2004 report.

South African government has paid much attention on broad-based programmes (often as part of a larger life skills initiatives), with the main objective being to provide the basic financial education to a wide audience possible. On the other hand, the non-profit organizations tend to have a narrow focus, which is that of poverty alleviation. The non-profit organizations primarily target the vulnerable groups such as women, elderly people and over–indebtedness individuals.

Given a South African low financial literacy level, financial education projects have a substantial role to play in reducing some of the demand side barriers to financial inclusion (Massey, Wyatt and Smit, 2015). The Financial Service Board's comprehensive study on financial literacy in South Africa indicated that the financial literacy rate level is currently at 51 percent[4]. Bouhail (2013) posits that since the establishment of democracy in 1994, much of the initiatives including government policies have had an aim at developing a financially comprehensive economy by eliminating the racially biased income and social variations in South African society. In achieving these goals, consumer protection and financial literacy have been identified by the government as key factors (Bouhail 2013).

Furthermore, the author indicates that consumer education is also a significant part of consumer protection, and that knowledge about the state of financial literacy among the population is essential for effective interventions. Roberts *et al.* (2016) report that for developing countries, having financially educated consumers helps to ensure that the financial sector makes an effective influence to real economic growth and poverty reduction. For more developed countries, financial literacy is also critical to help warrant consumers save enough to afford a sufficient income in retirement while escaping high levels of debt that might result in insolvency and foreclosures.

The Financial Planning Institution (2016) argues that there is a desperate need for financial education in South Africa. Scholars and policymakers progressively diagnose the significance of educating consumers in order to equip them to make sound financial decisions. Many efforts to provide financial education for youth have been located within educational settings (Grinstein-Weiss, Guo, Reinertson, and Russell, 2015). This literature concurs with Financial Planning Institution (2016) which observes the private and public sector have come together in order to understand the challenges that are faced by the South African financial consumer. During this

[4] http://www.fin24.com/Money/Lifestyle/improve-your-financial-literacy-in-2017-20170115-2

gathering, complementary one-on-one financial planning were offered by consultants, and workshops on a variety of topics and literacy course was offered to consumers during the annual Financial Planning Week which ran from 5-9 September 2016, as part of an ongoing initiative to educate consumers about financial planning.

2.2. Public and Private Financial Education Initiatives

To shed more light into the progress made in the provision of financial education to consumers, private and public initiatives undertaken in South Africa are highlighted below**.**

2.2.1. Financial Services Board (FSB)

Many South Africans are over-indebted and have limited skills to understand the complexities of a highly developed financial sector. There is therefore a need for systematic and coordinated financial education initiatives (Sibanda and Sibanda, 2016). According to Bouhail (2013) the Financial Services Board (Act no. 97 of 1990) has a mandate to promote Consumer Financial Education (CFE) programmes and initiatives done by the financial services industry and to enlighten and educate consumers (current and potential) of financial products and services. This Act, which is an amendment of the preceding version, was aimed at improving the level of financial literacy of consumers.

The FSB developed the CFE strategy document under the Act no. 9 of 1990, which was endorsed by parliament in October 2001. The strategy was aimed at "promoting the financial education of consumers in the formal education system as well as in the community". Financial literacy is currently combined with the national school syllabus with the FSB making provisional support to teachers and learners. The consumer financial education department of FSB also sees the facilitation of many community workshops by invitation. The short-term insurance industry association has created a partnership with FSB to create an additional awareness at both taxi and bus ranks through various channels, such as advertisements. There has also been numerous projected initiated with attention paid to farmworkers, disabled people, churches, trade union members and sport clubs that run on a continuous bases in various parts of the country.

National Treasury (2011) reports the then deputy minister of Finance, Nhlanhla Nene, as saying that "the Departments of Basic Education and Higher Education has opened doors for the FSB to work with educators as well as learners. The FSB has also worked in partnership with the South African Insurance Association to develop financial education materials for educators in keeping with school curricula". The issue of a financial education is also a government intervention which also need all stakeholders to get involved. Clarke (2013), who is the head of consumer education in the FSB, maintains that community education will create and promote awareness of products and services regulated by FSB. He further highlights that formal education may help to promote the integration of financial consumer education. Financial education is intended to improve beneficiaries' financial capability, and ultimately financial inclusion. In the FSB seminar (2016) document, some of the outcomes brought by financial education are that a person develops an awareness of financial risks and opportunities; improves a person's knowledge of financial products and concepts; make informed decisions, know where to look for help, and take other effective actions; and improve financial well-being.

National Treasury (2011) indicates that the FSB addresses the provision of consumer education, where it stated that, each financial entity commits to annually invest a minimum of 0.2 percent of net operating profits after tax in consumer education. The 2008 performance of the sector indicates that the target of 0.2 percent of after tax profit was spent on consumer education and amounted to R88.26 million (roughly USD 11 million). The future of good financial education in South Africa depends on learning from doing, as such evaluations must unpack more than the achievement of behaviour change (Massey, Wyatt and Smit, 2016).

The FSB implements financial education through a multifaceted approach that includes face to-face presentations and workshops, media interaction through published articles, radio and television as well as online environments. The FSB acknowledges that financial education needs a holistic approach and has therefore targeted two key focus areas, namely the youth and the formal education system and through community education initiatives. The need to monitor, evaluate and to assess the impact of FSB's programmes has also led to more directed research. Their approach is to make a provision of an appropriate content to an appropriately identified target audience using appropriate and relevant delivery channels.

The FSB outlined initiatives and targets include the following:

Further Education and Training (FET) colleges: this project targeted 3060 learners in FET colleges by offering 298 workshops nationwide on financial literacy.

Train-the-trainer: This initiative is based on the premise that females and people who live in rural areas are at-risk of having a low financial literacy. The first train-the-trainer initiative collaborated with Igama La Makhosikazi to train 11 facilitators to deliver workshops specifically targeting rural women and farm workers. After having a successful initial project, the Consumer Education Department (CED) continues with train the-train programmes with community organizations given that experience reveals that these organizations are most effective in working in communities.

The South African Council of Churches (SACC) project: this project has been one of the most successful of interventions. The CED and the SACC united in presenting workshops to congregants on the risks of high-cost funerals and dealing with deceitful service providers, following a directive from the parliament. This project is currently being rolled-out nationally.

SAICA camps: over the last three years the CED has worked closely with the South African Institute of Chartered Accountants (SAICA) in the delivery of workshops to black and coloured grade 11 learners attending their Winter Camps. The attending learners are aspiring chartered accountants and who intend to study in the field of finance. This partnership has grown to include workshops for girls and those in the Thutuka program at university level. Thutuka is a SAICA bursary scheme.

Industrial theatre: This innovative project saw seven industrial theatre performances being presented at ESKOM, City of Johannesburg, Tiger Brands and Gauteng Department of Economic Development reaching a total of 727 consumers. Due to success of this pilot project an additional 50 industrial theatre performances were planned for 2015/16.[5]

5 https://www.fsb.co.za/Departments/consumerEducation/Documents/The%20Consumer%20Education%20Department%20of%20the%20FSB%20%20(2).pdf

2.2.2. The National Consumer Financial Education Committee (NCFEC)

The national consumer financial education committee was established in early 2012. The committee reports to the Minister of Finance[6]. This committee was mandated with a development of consumer educations strategy, to oversee the implementation of the strategy and monitor its performance, and to make annual reviews (Sibanda and Sibanda, 2016). The National Treasury published its policy statement "A safer financial sector to serve South Africa better" in February 2011. Financial education is one of the components of comprehensive solution for protecting consumers on financial services highlighted in the policy documents. In support of this, the national consumer financial education policy document sets out the objectives of the policy, namely to (i) provide a framework for partnership and co-ordination of financial sector stakeholders in consumer financial education; (ii) make a provision of data and measurement of financial education programmes and determine whether policy and programme objectives are being achieved; and (iii) in this way improve consumers' financial well-being by improving their financial literacy in the dimensions of financial control, financial planning enhancing helping them to (i) understand financial management and thus take good decisions that are tailored to their personal circumstances (ii) monitor the market behavior of financial institutions through their decisions and use of recourse facilities (iii) face their ever-increasing responsibilities as a result of the growing complexity of financial products and the transfer of financial risk to consumers (iv) know where to look for significant information, objective advice or access to recourse facilities[7].

In 2012, the FSB baseline study provided the basis for the design of a focused strategy by the Committee. However the baseline does not include children below 16 years, who are excluded from the national strategy. In order to train children with skills and knowledge, the Committee identified the importance of starting financial education at a lower school level as early as possible. Thus the Committee is working on embedding financial literacy in the school curriculum. The National Consumer Financial Education Strategy defines objectives over the next ten years around four domains: (i) Financial control (ii) Financial planning, (iii) Product choice and (iv)Financial

6 https://www.mylifemymoney.co.za/Resources/Legislation%20Strategy%20and%20Policy%20Documents/National%20consumer%20financial%20education%20strategy%20(23%20Aug%202013).pdf

7 https://www.mylifemymoney.co.za/Resources/Legislation%20Strategy%20and%20Policy%20Documents/National%20consumer%20financial%20education%20strategy%20(23%20Aug%202013).pdf

knowledge. It further identifies financial education work that stakeholders can do together, and that which they can do as individual entities (Sibanda and Sibanda, 2016).

2.2.3. The National Credit Regulator

The National Credit Regulator (NCR) is accountable for the regulation of the South African credit industry. The regulatory body was established under the National Credit Act No. 34 of 2005. Its role is to undertake consumer education initiatives, development of policy, research, registration of industry participants, investigation of complaints, and ensuring the implementation of the Act. The regulator is mandated by the Act to make a development and promotion of an accessible credit market and mainly to address the needs of historically disadvantaged persons, people with low income, and remote, isolated or low density communities. Education and Communications Department is responsible for driving the financial education programmes where NCR educates consumers on their rights and obligations, making provision of tips on management of credit and it provides guidance on how and where to get assistance, should they be distressed.

One of the activities that NCR does is to avail information both in printed brochures and online in its website. Sibanda and Sibanda (2016) postulate that the NCR in collaboration with other members of the Consumer Protection Forum, make use of the International World Consumer Rights Day (15 March) to embark on awareness campaigns to educate consumers about their rights and obligations, on where to get recourse and on venues for enforcing their rights.

In a provision of consumer education, the NCR public relation department has multiple functions which include educational workshops, Stakeholder relation-(CONTRLESA, Political Organizations, NGOs), Media relations- Liaison with media and other relevant stakeholders (statements/ releases/ interviews, Advertising, Public relation and Website management).

In 2012, the NCR had targeted to have 210 workshops and they surpassed their targets by 101 workshops. Their outside broadcasts, exhibitions, malls and activations and roadshows functions also reached 23 while their target was 20. The number of participants that were reached through

these initiatives was 39701 while the target was 36000. This is evidence that the NCR has also done a great job in delivering the financial consumer education[8]

2.2.4. The Banking Association South Africa (BASA)

The Banking Association South Africa (BASA) financial education programmes date back to July 2008 when the association presented the 'Teach Children to Save South Africa' (TCTS SA™) initiative, which is associated to Mandela Day and which through the 2008 pilot targeted 90 schools but actually reached over 200 schools. TCTS SA™ (now rebranded StarSaver™) pursues to teach a culture of saving among youth and promotes volunteerism within the sector (Sibanda and Sibanda, 2016). The StarSaver™ since its establishment in 2008, has covered more than 3000 schools reaching out to one million school pupils. The participation sees the involvement of over 43 financial institutions and 19 banks which took part in the StarSaver™ programme which is in line with Mandela Day, where 67 minutes is taken by financial sector professionals and bankers as they volunteer to become financial information teachers in "Teachers-for-67minutes" campaign. StarSaver™ as a Mandela Day campaigner, is Proudly South African accredited, has endorsement from the SADC Banking Association and aligned with the ethos of ubuntu, volunteerism, dignity and nation-building.

The StarSaver™ has three basic tenets which are (i) Spirit of Ubuntu and Volunteerism; (ii) Proudly South African ethos and (iii) Nation-building. The core platform for financial inclusion is the financial literacy. However, to deliver a rounded involvement, StarSaver™ forms integration with communal presence initiatives and other employee volunteerism initiatives. The StarSaver™ Programme Ambassadors are: ProVerb, Mpumi Mbethe and Sibusiso Vilane.[9] Due to its success, BASA turned the initiative into an annual programme which is implemented through member banks and financial institutions, each of which have a national coordinator in charge of implementing the programme activities. BASA's financial education initiatives primarily target in-school learners. Other secondary target groups include teachers, volunteers, parents and

8 https://www.ncr.org.za/documents/pages/researchreports/july13/NCR%20Outcomes%20evaluation%20of%20educational%20workshops.pdf

9 http://www.banking.org.za/what-we-do/corporate-citizenship/teach-children-to-save-south-africa

university/college students. Furthermore, a pilot teacher development initiative was done for Gauteng province's Department of Education for Economics and Managerial Sciences (EMS) subject advisors. BASA has been approached by the National Department of Basic Education to develop online teacher training financial education resources for EMS educators. All StarSaver™ material is open source (Sibanda and Sibanda, 2016).

2.2.5. The Banking Council.

South Africa has seen an initiative by the Banking Council which executed consumer financial literacy programmes which were frequently targeted at a broader audience and commonly via collective approach (FinMark, 2004). One other initiative that it was involved in was the funding of the campaign with the aim of teaching people about the magnitudes of over-indebtedness, risks and costs involved in debt administration. Furthermore the report indicate that this initiative has seen an involvement of other stakeholder like Department of Justice, Post Office, Black Sash Department of Trade and Industries (DTI) and Microfinance Regulatory Council (MFRC). This was a short-term programme which was aimed to take place from February 2004 to May 2004.

The Strategy by the large banks on the execution of Financial Sector Charter commitments on financial literacy has seen the involvement of the Banking Council. The FinMark (2004) report viewed the Banking Council as an organization that could have an important role in mobilizing and bringing together its members to form and implement long term financial education strategy. This was seen relevant when one considers the access product which big banks used to get into the under- and un-banked sections of the market during the year 2004 (FinMark, 2004).

2.2.6. South Africa Insurance Association (SAIA)

The South Africa Insurance Association (SAIA) represents the interests of the short-term insurance industry. There is a compulsory contribution of funds by the short-term insurance towards delivering financial education to South Africans through South African Insurance Association (SAIA) (Sibanda and Sibanda, 2016). The association generates funds by taking 0.2 percent from the profit of each SAIA member. These funds are assembled to maximize impact of undertaken

projects by SAIA on its member's behalf. An amount of approximately R12-million was contributed in a 2012/13 initiative by SAIA members.[10]

The funds are directed to fund financial literacy projects which are executed by SAIA on behalf of its members. SAIA has reached out to hundreds of thousands of people to educate them about the significance of financial instruments such as insurance, banking and funeral cover. Teachers Development Project (iCount) was able to remain with SAIA as a result of the fund since this project aims at grade 10 to 12 Accounting subject. The project sees quality education and financial literacy material related to curriculum as pressing and this, in project terms, may not be over-emphasized. To help young learners improve their financial skills, step by step accounting resources are created through iCount in conjunction with an external service provider and this will help learner's to change their behavior in managing finances and attitudes[11].

The SAIA Consumer Education Committee pooled funds are directed towards enlightening high school learners and the generality of poor South Africans living in disadvantaged regions about financial literacy (Sibanda and Sibanda, 2016). One of the interesting initiative was the introduction of the financial literacy education programme by SAIA in 2012 for radios, where they use community radios and SABC radios for the provision of financial education. The idea is that this initiative would be able to reach many people through edutainment like dramas[12]. This radio project initiative is a project partnered with FSB with the aim of teaching listeners on overall financial skills like saving and budgeting and improving a knowledge on short-term insurance product. South Africa has witnessed a success in this project and it has been continuously running in various radio stations nationally[13].

[10] http://www.saia.co.za/info-center/media-release/2013/01/29/workforce/ accessed 23/10/2017
[11] http://www.saia.co.za/info-center/media-release/2013/01/29/workforce
[12] https://www.youtube.com/watch?v=tnN-R7JkZvI
[13] http://www.saia.co.za/info-center/media-release/2013/01/29/workforce/

2.2.7. Microfinance Regulatory Council (MFRC)

FinMark (2004) report that the MFRC had a formalized consumer financial education awareness campaign. In addition, the MFRC launched various financial education initiatives in support to Banking Council consortia: a multimedia campaign with an aim of availing consumer rights information when borrowing money and their rights to information. The MFRC role is to provide the protection right to borrowers and educate them about management of finance; it makes a provision of the training of teachers and advisors of intermediate organizations which ran financial education programmes to employees and societies; and the establishment of a debt relief programme aimed at launching a network of debt and financial counselors and mediates across South Africa. To maximize the outreach and impact on targeted groups, the MFRC employed different tools. FinMark (2004) reports that the impact of MFRC initiatives had not been formally established, but it was being tracked through their call center and showed remarkable results.

2.2.8. Savings Association of South Africa (SASI)

FinMark (2004) reported that SASI financial education initiatives aimed at conducting workshops and presentation to employee groups about management of debt, handling the garnishee orders, savings importance and various saving instruments. Such workshops were undertaken in association with financial service institutions and Non-Government Organizations (NGO), such as the MFRC, Old Mutual and You and Your Money. Sibanda and Sibanda (2016) report that SASI in partnership with industry players adopted July as *National Savings Month* eleven years ago (adopted in 2006) as part of its strategies towards improving financial literacy and to promote national culture of savings. Development of educational materials, awareness raised through networking and facilitation of meetings and promotion of activities particularly during National Savings month's campaign are some of the activities of SASI. Other activities involve advocacy with policy makers and regulators, research initiatives (to monitor savings performance in the country), and publishing of a Quarterly Savings Barometer (Sibanda and Sibanda, 2016).

SASI Chairperson, Prem Govender, highlighted that, following South Africa's ratings downgrade and subsequent effects on the economy in 2017, consumers will gradually be under financial burden and need to advance both knowledge and attitudes to saving. Savings Month has been

designed to remind consumers, via the media and other channels, to strive towards financial freedom or remain continuously vulnerable. Cultivating a culture of savings and promoting alternative savings solutions in all spheres of life is SASI's focus for 2017. SASI has been dedicated to developing a robust culture of saving in South Africa since 2001. Govender elicit that, according to South African Reserve Bank (SARB) figures, in the last 16 years, South Africa has seen a decline in savings rate, reaching a record low of -2.70 in 2013. However, South Africa is now seeing small increases off a very low base, with the Household Saving Rate in South Africa increasing to -0.30 percent in the first quarter of 2017 from -0.50 percent in the fourth quarter of 2016. Govender further highlights that "we are starting to see an overall reduction in household debt.

The SARB bulletin for the first quarter of 2017 shows that, on an annual basis, growth in household debt slowed from 4.6 percent in 2015 to 3.9 percent in 2016, and the ratio of household debt to disposable income edged lower from 76.9 percent to 74.4 percent over the same period. In order to meet the aim of the institution which is to assist people to save, SASI has outlined 13 steps as follows:

- *Set a Target*: to improve the levels of savings, the SASI encourages people to set the targets for savings for various reasons such as Emergency fund, Holiday fund and other saving target.
- *Automated Savings*: set debit orders to allow automatic savings with Tax Free Savings Accounts
- *13th Cheque*: people are encouraged to ask their employers to lower the monthly salaries so that they get a 13th cheque which they will use during festive period. This extra pay cheque will allow a ride out of the Festive Period and New Year expenses without major impact on finances.
- *Pension Fund Contributions*: people are advised that when starting a new job, they must ask their employer to default to the highest allowable retirement fund contribution percentage of their income. They can also ask their employer to review current contribution. Best of all, all retirement funding contributions are tax deductible annually up to R 350 000.
- *Financial Wellness Days*: people are encouraged to ask their employer to give compulsory time off to review their finances with a Financial Planner once a year. Regular meetings with a Certified Financial Planning Professional will help people remain in control of their finances.

• *Group Savings*: another step to help people save is by starting a joint Stokvel or Investment Club with family and friends. The group will encourage you and allow you to develop the discipline required to be a regular saver.

• *Savings Buddy*: advice is provided under this initiative to allow your partner or friend to be a savings buddy whom you meet with regularly to discuss your savings journey. By holding each other accountable, you can help each other to grow wealth.

• *Financial Products and Insurance*: people are encouraged to shop around and use a financial institution that rewards consistent savers either through a high savings interest rate or cash back for no claims.[14]

2.2.9. Department of Education

The FinMark (2004) report that the South African government has established many different initiatives in the area of financial education through the education department. When the initiatives ware launched, their content was suitable in terms of equipping people to administrate their own finances and understand the financial dynamics needed in the banking products.

The Outcomes Based Education (OBE) is the curriculum that was adopted by the department of basic education in South Africa. In the learning area of Economic Management Sciences (EMS), OBE covered financial literacy (FinMark, 2004). Financial Literacy standards/ and content was integrated with the Adult Basic Education and Training and the National Qualification Framework. The challenges in the case of Department of Education was ensuring satisfactory content to the programmes, as well as experience and the skills required for the implementation of the financial education programmes. Schools under the department of education have different ways to run and implement the financial literacy programmes. Building the capacity of teacher to implement OBE was important. This initiative was aimed at improving the level of financial education to learners at an early age. For material development and teacher capacity building, Standard Bank foundation invested heavily in the programme by starting with grade seven learners in different South African schools (FinMark ,2004).

[14] http://www.savingsinstitute.co.za/focus-on-alternative-savings-during-july-savings-month/

2.2.10. Life Office Association (LOA)

FinMark (2004) reports that the Life Office Association targeted life assurance clients for their educational initiative with the aim of educating the market with specific issues relating to assurance. Their 2004 programme focus was on HIV/Aids and assurance. The programme used print media as their primary channel. The programme content was reported as excellent, however, there was a challenge on the outreach and frequency were limited.

2.2.11. Truth About Money

Truth About Money was launched by an insurer, 1Life, in March 2014. This initiative makes a provision of debt management tips and estate planning advice. Since commencement, more than 30 000 South Africans have been reached and they all received certificates of completing the short course (eight-hour), worth R2 500, through Boston City Campus and Business Colleges.[15]

All the above mentioned organizations have developed all these initiatives in an attempt to provide financial education to South African citizens. The common goal for the provision of financial education is to eradicate the low level of financial literacy and improve financial inclusion. These programes have outline the target groups which are mainly the youth and these have been targeted at an early age, mostly in the high school level. Noteworthy is the fact that none of these programmes highlight the need for financial education for university students.

For some of the programme to improve their outreach, the channel of communication should also accommodate social media. This may improve the level of outreach as many people use social media in their daily lives. Some of these initiatives may as well try to work with most influential people in the communities as ambassadors for financial literacy and financial education. This may increase the level of attention from the youth. It can be concluded that South Africa has seen the importance of financial education and financial literacy in the societies, however, more and more

[15] https://www.fin24.com/Money/Lifestyle/improve-your-financial-literacy-in-2017-20170115-2

initiatives must be done to reach all corners of the country. This would improve the level of financial literacy of citizens and they will then improve on making good financial decision.

Chapter Three: Literature review

In this chapter, a review of literature, both theoretical and empirical on the concept of financial literacy and issues surrounding it, is carried out. This helps to distil the essential factors that drive the financial literacy of students, financial attitudes and financial behavior. This chapter looks at the socio-economic and demographic attributes that play a role in the financial literacy level of students.

3.1. The Concept of financial literacy

Hung *et al.* (2009) argue that different ways have been used to define financial literacy by various researchers and organizations. The President's Advisory Council on Financial Literacy (PACFL, 2008 cited in Hung *et al.*, 2009) defines financial literacy as, the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being. Hilgert, Hogarth and Beverley (2003) use financial literacy interchangeably with the term financial knowledge. Financial Industrial Regulation Authority (2003) defines the concept of financial literacy as, the understanding ordinary investors have of market principles, instruments, organizations and regulations. Moore (2003), opines that individuals are considered financially literate if they are competent and can demonstrate that they can use the knowledge they have learned. Furthermore the author posits that there are direct proxies that can be used in financial literacy measurement.

Through practical experience and an active combination of financial understanding, it is possible; for people to obtain financial literacy. When people become more literate, they gradually become more financially cultured and it is assumed that this also means that they will be now more financially knowledgeable (Huston, 2010). Mandell (2007) argues that financial literacy is the ability to analyze fresh and complicated financial tools and make knowledgeable decisions in both choice of tools and degree of usage that will serve own long-run best interests.

3.2. Importance of financial literacy

Financial literacy is a significant component of economic and financial steadiness, for both individuals and the economy as a whole (Lusardi 2015). Investing opportunity (for those who have money) and ability to compare investment rewards and shortcomings are the packages that come with being financially literate. It also gives financial facts like risk and return, and the compound interest value (Temizel, 2010). Lusardi (2015) mentions that there has been an increasing alertness of the significance of financial literacy in recent years. Furthermore the author mentions that numerous countries have been apprehensive on the financial literacy levels of their citizens.

Er (2015) posits that financial literacy may help customers regardless of their age and income levels. Financial elementary tools like budget and savings are some of the packs that financial literacy brings to young adult university students who are new recruits to financial independency. Financial literacy has been recognized by many as significant aspect to the youth as they face more accountability in financial decision making (Lusardi, 2015). The author further posits that financial literacy helps low income individuals with the ability to make great savings which may help them avoid high commissions charged by non-financial institutions (i.e loan sharks). Families, as a result of having financial literate members, may be able to own houses or maintain self-control to save money for education of their children, and this will permit them to have expenses and debts under control (Er, 2015). Mahdzan and Tabiani (2013), in their Malaysian study found that financial literacy is a substantial determinant of a person's saving.

Cude, Lawrence, Lyons, LeJeune, Loren and Krisanna (2006) report that several studies have showed an interest in cultivating the financial literacy of tertiary students, which is vital for numerous reasons. First, financial decisions taken by students at the college have a vital effect on their financial condition after college. Lusardi's (2015) study discovered that more than 15 percent of the students in the OECD (Organization for Economic Co-operation and Development) countries performed under the baseline level of proficiency on the financial literacy assessment. Chen and Volpe (1998) posit that college students are probably going to make mistakes in the real world because they do not have adequate financial knowledge and literacy. Financial market place

has had an extensive development and this has added a gradual concern to the financial literacy level of residents in various states (Lusardi, 2015).

Financial literacy, in recent years, has been at the center of attention of a broader range of different groups including financial associations, government agencies and community interest organisations (Gordon, Roberts and Struwig, 2014). In South Africa, the government has committed itself to improving financial literacy levels. Embodying the government's commitment to greater financial-wellbeing among the public is the National Consumer Financial Education (NCFE) strategy, which has the objectives of financial control, production choice, financial planning and financial knowledge. The strategy's vision is to afford every South African citizen, especially those who are vulnerable and marginalized, to be empowered to get involved confidently in the financial market place and to have ability to manage their financial affairs (Gordon *et al.*, 2014).

The foregoing group is also targeted to be able to deal with their daily financial decisions and make good financial choices when allocating their incomes from an early age, and at working age to retirement age (National Treasury, 2013). The implementation of this strategy sees stakeholders working together in provision of financial education to consumers by plan to fund, implement, monitor and evaluate consumer financial education programmes and initiatives (National Treasury, 2013). Mahdzan and Tabiani (2013) assert that people who are financially literate have capability of knowing how to manage their money, have a deep understanding of how financial institutions operate, and obtain a variety of skills to analyze finance dynamics. Furthermore, they would know how to be financially responsible and how they should manage their financial affairs (Beal and Delpachtra, 2003).

Lusardi (2013) argues that there is a strong relationship between financial literacy level and the level of education in spite of the fact that even at tertiary levels, financial literacy levels are low. The author also claims that people who are working also have high financial literacy level. However, in some countries, self-employed people have a high financial literacy level than those who are unemployed. The work place financial education programmes (such as in United States)

may be the reason for the difference in the financially literacy level. The difference could as well be as a result of the skills acquired on the job or from knowledge gained from colleagues

Mahdzan and Tabiani (2013) posit that numerous types of surveys have been conducted in order to measure the degree and spread of financial literacy. Results of a study by Lusardi and Mitchell (2007a), in the United States of America (USA), show that people with low levels of education, females, African-Americans and Hispanics displayed a low financial literacy level which, consequently, has effect on their own financial decision-making. Furthermore, the results of the study discovered that these groups of respondents do not participate in the stock markets, they fail to plan properly for their retirement period and they have poor borrowing behaviour (Lusardi and Mitchell, 2007b).

A study cross-examined 1,000 participants in USA on significant financial information (the questions entailed components such as investing and saving, risk and protection, and retirement) that could have an effect on their future; and many participants were unable to get 60 percent of the questions correct (Leyes, 2006). In another research conducted on behalf of the National Council on Economic Education (NCEE, 2005), almost all United States of America adults are certain that it is vital to obtain better knowledge of economics (Louw, Fouché and Oberholzer, 2013). A Japanese consumer finance enquiry done by Louw *et al.*, (2013), showed that around 71 percent of adult respondents knew minimal information on bonds investment and equity and slightly above 50 percent knew of any effective savings plans as cited by (Lusardi and Mitchel, 2007a). Australian Securities and Investment Commissions (ASIC, 2011) which was initially conducted in 2008 and was updated in 2010 revealed that Australians have contradictory knowledge in financial matters and varying financial knowledge.

Budgeting, debts and savings are easy financial concepts that can be understood by many people. However, people have low knowledge and confidence about complicated and unfamiliar topics such as investing, saving for retirement and superannuation (Lusardi and Mitchell, 2007b). Lusardi (2013) found that, regardless of a country or its economic development stage, financial literacy is low across the board. Only 30 percent of the population in the United States (as measured in the FINRA Investor Education Foundation's 2009 National Financial Capability Study) was unable to

answer correctly all three financial dynamics questions, which are: one, suppose you had $100 in a savings account and the interest rate was 2 percent per year. After 5 years, how much do you think you would have in the account if you left the money to grow?; two, imagine that the interest rate on your savings account was 1 percent per year and inflation was 2 percent per year. After 1 year, how much would you be able to buy with the money in this account? ; three, please say whether this statement is true or false. Buying a single company's stock usually provides a safer return than a stock mutual fund." Similarly, countries with well-developed financial markets like Germany, Netherlands, Sweden, Italy, Japan and New Zealand, where financial markets are rapidly becoming complicated, have seen the same results.

On the financial literacy and savings relationship, Lusardi and Mitchel (2007a) surveyed the impact of financial literacy on people's readiness for their retirements and the outcomes of the study disclosed that the probability of having a plan for retirement can be intensified by the level of financial literacy and that people who do not have plans for retirement have less wealth compared to people who have plans. They indicated that family savings can be indirectly influenced by the financial literacy effect on planning. Mahdzan and Tabiani (2013), argue that better understanding of finance may easily get people ready for retirement which can be through insurance plan and savings. Meanwhile and Clark and D'Ambrosio (2008), indicated that the combination of financial literacy and saving programmes may be efficient and effective on overcoming the decline in savings. However, there has not been a clear exact process that displays how learning may change the investment and saving decisions (Maki, 2004).

A study on university students in Malaysia by Hasan *et al.*, (2013) shows that most students enjoy their independence on the financial decision matters during their university life. This means they have the responsibility of making their own financial decisions. Since their purchasing power has expanded, credit providers and financial institutions have segmented students as part of the important customers in their market. However, the authors also found that as part of the developing countries, Malaysia has a lower financial literacy level when it is compared to other countries.

Atkinson and Messy (2012) posit that a person's behavior has an important impact on their financial wellbeing, and as such it is vital to capture evidence of behavior within financial literacy

measurement. In South Africa, household/private savings levels are extremely low as the income earning population has a high spending culture (Grobler, 2015). Recently, educators, policy makers, and university officials have made efforts to focus on one aspect of college students' financial behaviours – their credit usage, particularly the credit cards and store cards. Increased usage of credit cards by college students has generated concern to many in that there is a great risk of financial problems for students that is associated with having a credit card (Cude *et al.*, 2006).

Students and graduate spending behavior is all about instant, as opposed to delayed satisfaction. This as a result has led students to purchase items in credit instead of having savings to afford purchasing those goods in cash. If this is not tackled, it may lead to a lifetime of financial uncertainty. This may be a trend caused by the lifestyles which students may want to live although they may not have sufficient funds to afford that type of lifestyle. The issue of students having been found falling deep into the debts seems to be a global problem which also imposes the danger on the future of those who are in debts at an early age[16].

Theoretically, having a knowledge of how financial markets function should have an effect in people making more effective borrowing decisions (Liebermann and Flint-Goor, 1996). This is usually reinforced by the availability of literature as many studies show that advanced financial skills are essential for effective money management (Carswell, 2009). Several studies have established the relationship between knowledge and behaviour. Even though they differ in how knowledge is measured and what behaviours are addressed (Robb and Woodyard, 2011).

According to Angela *et al.* (2009), investment and savings choices could be less noticeable, but can have severe consequences for financial security in a long-term for a bigger percentages of the American people. Behavioral finance studies have established a wide collection of theories and research to clarify how people make financial decisions. Behavioural economists argue that a 'rational' consumer that reinforces traditional economic philosophy is nonexistent, otherwise, people are just normal (ASIC, 2011).Behavioral economists claim further that making decisions every day, especially complex decisions, including financial decision affect "normal people"

[16] www.1life.co.za/news/South-africas-youth-and-finaicial-planning/

behavior. Professional financial service provides assistance to a number of people affected by complex financial decisions (Gervais and Odean, 2001).

3.3. Socio-economic Status and financial literacy

Lusardi (2015) shows that there has been lot of documentation of research on the relationship between financial literacy and socio-economic background. Lusardi and Mitchell (2014) indicate that there is an expectation that students who score better on a socio-economic background should also score better on financial literacy compared to students with a low socio-economic background. A study by Thomson (2014) on Pragramme International Student Assessment (PISA) 2012 discovered that there was some variances in the degree in which socio-economic status plays a role on the financial literacy level, especially on mathematics and reading literacy when countries are examined individually; In Columbia, they discovered that socio-economic status is significantly related to financial literacy than with mathematics and a further discovery was that in Spain, socio-economic status is strongly related to financial literacy than reading. In Poland they discovered that socio-economic background is related to mathematics than with financial literacy and it is strongly related to the ability of reading in Australia, Italy and Belgium than with the financial literacy, although some of those variances are not that big. .

Lusardi, Mitchell and Curto (2010) also argue that there is a very robust relationship between financial literacy and socioeconomic status. Their findings indicate that in all countries, the higher socio-economic students perform better in financial literacy. This was also a finding made by Thomson (2014), who indicates that in general, there is an evidence that students with a higher socio-economic background are better performers when it comes to financial literacy. There is no doubt that socioeconomic status is a very significant financial literacy predictor. Lusardi (2015) furthermore posits that as students grow old, the gaps that are brought by the socio-economic status and capital on financial literacy may continue even when students have become adults and it may also be passed on to a next generation. The author again indicates that wealth inequality can be clarified by a significant role of financial literacy.

Lusardi and Mitchell (2014) reveal that the variances between the financial knowledge and the level of financial literacy among the youth may result into significant penalties later in life. Therefore, policy interventions could precisely aim at disadvantaged, lower socio-economic status students, girls and people from rural areas. Furthermore, students' approach to financial tasks may be linked to an influence by intellectual and psychological background for some people. Family financial socialization and how families approach their values, attitudes and behavior related to many can make a difference about how students approach finance (Gudmunson and Danes, 2011). Similarly, the ability to apply financial concepts may be related to students' family financial socialization (Lusardi 2015).

Jorgensen (2007) shows that there is no causality between the level of financial literacy and level of socioeconomic status. The finding is in sharp contrast with those from Lusardi (2015) as well as Thomson (2014) who suggested otherwise. This finding by Jorgensen (2007) suggests that whether student's parent's household income is $35,000 or $80.000, this does not have an effect on the student's financial literacy level. Although it would appear that well-off household's students have a better understanding of finance, it is possible for a low income household student to learn about finance and become more economically involved. According to Thomson (2014), countries (both OECD and non OECD) that took part in the evaluation of whether parents educational background played a role, students whose parents obtained a tertiary education performed better in financial literacy compared to students whose parents have no tertiary qualification.

Furthermore, the author shows that students' financial literacy is also linked to their parent's occupation. Parents' occupational status categorizes students according to the highest occupational status of their father or mother. Students with parents who are managers, professionals, technicians, associate professionals and teachers were categorized in a higher group. Student's performance gap across the OECD countries that is brought by the parent occupation is the same across financial literacy level, whether mathematics or reading performance (Thomson 2014).

Parental educational background plays a role in determining the level of financial literacy for a student (Lusardi, Mitchel and Curto, 2010). They found that educational attainment of mothers is

strongly linked to a high financial literacy, particularly if the student's mother is a college graduate. Students whose mother's obtained tertiary qualification obtained 6 percent point higher score on questions about inflation and 5 percent points higher on risk diversification question, which were higher than those with mothers who did not obtain a tertiary qualification and the differences were statistically significant. Thomson (2014) found that in France, Spain, Colombia, and the Russian Federation, students with parents who had tertiary qualification scored better on financial literacy test than students with parents who did not have tertiary education. The power of having an educated parent may play a significant role not only in the financial literacy, but in mathematics and reading literacy.

3.4. Demographic status

3.4.1. Gender

Many authors have made arguments on the issue of gender having an impact on the financial literacy levels. Shahrabani (2013) conducted an investigation on financial literacy among Israeli students. The study finding was that Israeli student's show a low level of financial literacy and that financial literacy levels are largely affected by class rank, gender, nationality and the tertiary major subjects that a student enrolls for. In addition, the study discovered big gaps in financial literacy between Jews and Arabs. Atkinson and Messy (2012) argue that it is visible that the levels of financial literacy are different within countries and therefore it is important to know the reason why they vary across particular socio-economic and demographic groups.

Gender differences in financial behavior have been identified as a crucial factor when researching about financial knowledge and behaviors (Hayhoe, Leach, Turner, Bruin, and Lawrence, 2000). Lusardi (2015) posits that the score in the financial literacy does not depend on gender of a participant in most countries, with Italy being the sole exception. Although on average males and females scores in many countries are alike, gender proportions are not equally distributed among low and high performing students. Mahdzan and Tabiani (2013) suggest that male students have the ability to save more than female students. There is evidence that women are less confident

(Clark-Murphy and Gerrens, 2002; Taylor, 2003) and less knowledgeable (Chen and Volpe, 1998) than men on the topics of personal finance. When confronted by financial affairs, male generally display confidence (Taylor, 2003), whereas investment practice for women are more conservative (Bajtelsmit and Bernasek, 1996).

Thomson (2014) shows that financial literacy has limited gender differences, whereas other researchers have stated that females are less financial knowledgeable compared to males. For example, Lusardi and Mitchell (2007a) argued that males are generally more financially knowledgeable than females, and that saving level is directly affected by the financial literacy level. Some researchers have revealed that a distinct retirement saving plan is less expected from women (Sunden and Surrette, 1998), while other researchers have revealed contradictory results (see for example, Agnew, 2006). Lusardi (2008) argues that in risk diversification there is an observed gender variance in the financial literacy which shows that females know less than males.

The gender subject is particularly significant because of the challenges that face females when making financial decisions, especially after their spouses have passed on. Thomson (2014) posits that it could be hypothesized that gender variances at adult age may reflect different socio-economic characteristics of males and females. For example, different exposures are thrown into the ways of male and females as they grow up to afford those chances to acquire and improve their financial competences. For example different opportunities such as access to labor and financial markets could end up in financial knowledge level differences and changing degrees of understanding financial strategies when people become adults. One of the contradiction found in OECD (2013) study that women tend to have a long life expectancy compared to men and their income is less than that of men over their lifetime, which means to secure their long-term financial well-being, good financial decisions are vital. Researchers have shown that risk preferences differs between male and female, which have an effect on the spending and saving decisions they take. However, there has been little information that shows the difference in saving decision between females and males.

Atkinson and Messy (2012), analysis of financial literacy by socio-economic demographics demonstrate that females financial literacy level is much lower than males financial literacy level

in almost all of the countries studied (Hungary being the exception). Atkinson and Messy (2012), Chen and Volpe (2002) and Goldsmith, Goldsmith and Heaney (1997) found that females are also less likely to obtain high scores for financial decision than males in several countries (Albania, Armenia and South Africa). However Atkinson and Messy (2012) and Hayhoe *et al.,* (2000) also specify that in most of the countries surveyed, women are more likely to have a positive attitude towards the long term than their male peers. Women were more expected to report the use of good financial practices. However, this is not true in Albania and Poland where men are more likely, or in Armenia and South Africa, where there is little or no difference between the genders. Oseifuah and Gyekye (2014) found that male accounting students are more likely to be more well-informed about the personal finance than their female counterparts. Their finding appears to be supported by the roles traditionally played by males and females in decision making typical found in African household where male predominates in most decisions including financial decisions. However, Ibrahim *et al.* (2009), found out that between males and females, there is no huge difference when it comes to financial literacy level.

Graves and Savege (2015) described how separating purchases into two sections, namely needs versus wants, when they are about to purchase, has an influence to their decision making. In the event that they have overspent, differences in terms of gender then emerge. Entertainment with friends and food are the reason males overspend their money while females overspend on clothes and cosmetics. Furthermore in their study, they also found that females' day to day social live is anchored around shopping as a social event. Surprisingly the finding from Jorgenson (2007; and Ibrahim *et al.*, (2009) found that male and female students possess same financial literacy skills, which means there is no difference. Jorgenson (2007) stress that the reason for no variances between male and female students was that they all attended the same financial education programme regardless of gender through their school system. The author furthermore discovered that there is no differences that was found between males and female students with regard to their financial attitude. However, again, another discovery from Jorgenson (2007) was that students who are married know more than bachelor students and the higher educational level students performed better than students at lower level of study. The author's overall finding is that there is low financial literacy level within tertiary students.

Motolla (2012) argues that men generally have superior financial understanding than women. The likelihood of women answering a financially literacy question correctly is very low, similarly Lusardi (2013) found that across countries, women may be less likely to guess the correct answers or may lack confidence in their financial knowledge. When asked to self-assess their financial literacy, women are more likely than men to measure themselves as possessing low financial knowledge, consistent with their high prevalence of "do not know" responses. This as a result maybe be a stepping stone to identify women as ideal target group for financial education programmes. Most authors have shown or indicated that females are likely to be less financial literate as compared to the males.

3.4.2. Age

Age is another demographic factor that affects investment decision of investors (Korniotis and Kumar, 2011). Financial literacy is mainly significant for youth, as they are confronted by financial decisions that can yield significant consequences throughout their life. Growing responsibility requires younger generations to obtain knowledge that helps them to make good financial decisions early on (Lusardi, 2015). Lusardi and Mitchell (2014) argue that the previous generations faced less challenging financial decisions compared to the current (younger) generation. For example, digital technologies and globalization have made financial services and products more complex and easily accessible. This as a results forces people to be more responsible with their financial decision such as investing in additional education, saving for a child's education, or planning for retirement.

As people grow older, their financial literacy level generally improves (Chen and Volpe, 1998; Volpe, Kotel, and Chen, 2002), although (Joo *et al.*, 2003) showed that in their study on credit attitudes of student, age does not have a significant relationship with financial literacy level. Hasan *et al.* (2013) and Hanager and Cude, (2016) argue that there is a positive relationship between a student age and financial literacy level. Their study also found that 18 to 24 year old, young adult college students regularly have a higher degree of demographic diversity and instability, with many having moved away from their families for the first time.

Chen and Volpe (1998), argue that the age between 18 and 22 or below the age of 30 may have a low financial literate level because there are in their early financial cycle. Hasan *et al.* (2013) assert that at this stage of the cycle, the exposure of financial issues and products related to general knowledge such as savings, budgeting, borrowing and insuring is very limited. At this period, students or youth spend most of their income on consumption rather than investments and savings. Atkinson and Messy (2012), argue that there is a visible difference in financial literacy by age and income. In most countries, the oldest and youngest respondents are more probable to have lower levels of financial literacy whilst middle age is related with higher levels of financial literacy.

Furthermore the results of their regression analysis approves that students which higher income are more probable to obtain high scores than their lower income peers. Mahdzan and Tabiani (2013) maintains that as people grow old, they are likely to save more money, because retirement is a cause of concern for elderly people. Furthermore, the life-cycle expenses for the elderly people is not too much high, therefore age is positively related to individual savings. Hasan *et al.* (2013), argues that as a person grows old they gain a new freedom and a greater sense of financial responsibility. The attainment of knowledge as a result, seems to accumulate with age and experience. The results of the various empirical studies generally show that the younger the age the lower the level of financial literacy. In their analysis of financial literacy among college students in Malysia, Hasan *et al.* (2013) found that holding other factors constant, positive saving is correlated to old aged people. This finding could be expected as older people would have had a longer period to save, hence, they would have collected more saving as compared to younger individuals (Mahdzan and Tabiani, 2013).

3.4.3. Major Subjects and level of study

The findings of a study by Atkinson and Messy (2012), indicates that there is also a positive correlation between education and financial literacy. Much educated people are likely to display a positive financial behaviors and attitudes as well as displaying advance financial literacy. Hasan *et al.* (2013), found that respondent's major subjects have a substantial relationship with financial literacy level. Research by several authors, including Beal and Delpachitra, (2003), Chen and Volpe (1998) and Robb and Sharpe (2009) cited in Mahdzan and Tabiani (2013), support the

findings which indicate that students major subjects of studies in university have important influence to personal financial literacy level, and have shown that students who major with commercial subjects obtain more knowledge about personal finance than students of other faculties or non-commercial subjects. Hasan *et al.* (2013) indicates that non-commercial students scored less than students enrolled in commercial majors on a financial literacy test. There seem to be an agreement from these researchers that non-commercial student are more likely exhibit a less knowledge about personal financial than students who majored with commercial subjects particularly in finance and accounting (Chen and Volpe, 1998; Volpe et al.., 1996). Beal and Delpachitra (2003), on the other hand posit that students who are interested in financial matters and get engaged more in reading and listening to financial reports on media displayed better scores in financial literacy test even though they were on their university first entrance year taking business studies .

Hasan *et al.* (2013) in their study found that a level of study is significantly related to financial literacy level. The findings of their study indicates that respondents with higher levels of education, full time course attendees, have higher level of financial literacy. Similarly Menton *et al.*, (2006), and Jones (2005) show that students' year level of study at the tertiary level has a significant impact on financial literacy. Jorgensen's (2007) study shows that financial knowledge and literacy may increase as students start from first year to Masters level or postgraduate level. This proposes that students expand their financial knowledge as they progress higher on the academic ladder; as well as through life experiences. Growing old and facing more financial decision may motivate older students to learn more about the financial products. Chen and Volpe, (1998), Fogarty and MacCarthy, (2006) and Mandell and Klein, (2009) posit that senior students have higher financial literacy level due to greater exposure to financial related information. There is a significant relationship with an increase in financial literacy level and risk tolerance, financial attitude, saving and investment behaviour (Jorgensen, 2007). Mahdzan and Tabiani (2013), like other researchers before them, also find that students with higher education qualification have higher savings rate compared to students at a lower level of education.

Manton, English, Avard and Walker (2006) in their study, at Texas A and M University- in USA found that first year college students were able to answer only about 35 percent of financial

knowledge questions properly. Applying a six-question scale of credit understanding to evaluate financial knowledge, Jones (2005) reported that, on average, first year students answered correct answers only 56 percent of the time in their study. Manton, *et al.*. (2006) finding was approximately one-third (32 percent) out of the 1,003 college students surveyed asserting that they were "not at all" or "not very well prepared" to manage money on campus during their freshman year.

3.4.4. Income

Worthington (2006a) study concluded that financial literacy is not necessarily related to the level of income. It is possible to have a high financial literacy level as all levels of income. The author further argues that income itself does not influence the capability of someone to improvement their knowledge to form attitudes favorable to their own financial wellbeing or to display positive behaviours. Worthington (2006a) posit that there is no indication to advocate that households with low income are not financially literate. OECD (2013) however found that, some financial decision like borrowing to make the ends meet may be explained by the fact of having low income, the report furthermore indicate that low income may be perceived as a motive not to undertake actions such as saving or making long term financial plans. Low income may also be related with other socio-economic and demographic factors that have displayed a relationship with financial literacy such as age.

Hung, *et al.*. (2010) posit that financial stress is a subsequent feature of financial illiteracy: and the authors further indicated that low income households commonly get financial stress. Ahsan (2013) reports on another interesting finding that students who are from relatively poor families scored better on financial literacy test compared to those from upper-income families. OECD (2013), in its study comparing different countries found that respondents who have higher income from respective countries were more capable to be categorized in the highest scoring segments of a financial literacy test. This trend was unmarked in Estonia and Norway but predominantly evident in the Czech Republic, Hungary, Ireland, Malaysia and South Africa. Mahdzan and Tabiani (2013) argue that ability to save is significantly determined by the income. Their regression analysis

showed that as income rises, the probability of saving increases. A financially literate person is capable of taking a good financial decision and savings is one of those decisions.

3.5. Benefits of Financial Literacy

Researchers maintain that financially literate person is able to manage their money, have a knowledge of how financial institutions operate and have analytical skills of financial issues (Mahdzan and Tabiani, 2013). Furthermore, it is argued that they would be able to be financially accountable and to administrate their financial affairs (Beal and Delpachtra, 2003). Research has also revealed that it is beneficial for individuals and their families to be financial literate (Blalock *et al.*., 2004). Furthermore, the authors indicate that students who are financially literate have increased chances to make good financial decisions like savings and investing, spending less than they earn, getting out of debt, and living on a budget. Foster, Juliana and Marvin (2015) argues that a student's financial knowledge has been shown to affect the student's investment behavior. The benefits of accumulative financial literacy contains financial management, ability to make medium and long term financial planning's, to be able to differentiate financial products, to know where and how to seek suitable financial products information and to efficiently and actively consume financial products (Reyes, 2006). It also reduces the probabilities for bankruptcy, getting government aid (Bauer *et al.*, 2000; Blalock *et al.*, 2004; Huston *et al.*., 2003), and taking unfortunate consumer choices (Grable and Joo, 1998; Hayhoe, Leach, Turner, Bruin, and Lawrence, 2000).

Reyes (2006) argues that financial markets have become more complicated which leads to individuals needing more information while making financial decisions. Incorrect financial choices made by individuals have a possibility to have an effect not only to the individuals but also to negatively affect the financial markets. Mahdzan and Tabiani (2013) assert that higher financial knowledgeable people are capable to have themselves ready for retirement through better saving and insurance plan. Meanwhile, Clark and Madeleine (2008) report that having saving programmes and being financially aware may be important in overpowering the decline in saving. Better financial decision making is promoted by a high financial literacy level which permits a

good financial planning and planning for life events such as housing purchase, education or retirement (Mahdzan and Tabiani, 2013).

3.6. Financial Attitude

Financial attitudes refer to beliefs and values that one has related to various personal concepts of finance, such as whether one believes it is important to save money (Gina, Chowa, Despard, and Osei-Akoto, 2012). Student's attitude towards financial products is one of the vital contribution to their financial life as they grow old. At tertiary campuses today there is an increase in the ability for students to access, apply and receive a credit card (Hayhoe *et al.*., 2000; Lyons, 2004; Miller, 2002). New credit card holders have the ability to keep their first card, this makes credit provider companies target the tertiary students (Hayhoe *et al.*., 2000; Joo, Grable, and Bagwell, 2003). Students who obtained their credit cards at the campus displayed a higher debt-to-income ratios than those who obtained their credit cards elsewhere and are at more risky financially (Lyons, 2004).

Cude (2006) argues that there has been a huge call for concern amongst many because of the increased usage of credit card by college students which put them in a greater risk of financial problems after graduation. Jorgensen (2007) found that 40 percent of students did not understand when credit card interest charges on a recent purchase would commence. In their study, they further discovered that students who had four or more credit cards were 43.2 percent, students who had three or less student's credit cards made 50.4 percent and, 6.3 percent of students owned no credit card. Student's behavior is positively related to their financial attitude (Hayhoe *et al.*., 2000). Jorgensen (2007) Credit cards can be appropriate for tertiary students but reckless usage can hint to current and future financial problems. Graves and Savege (2015) report that student spending is consistent with their young age, their limited budget cannot afford their busy social lives, the pattern of overspending which is related to their social lives has been shared by various authors.

In the United States of America the study conducted by Mae (2005) on the use of credit card reported that undergraduate students who have credit card had made 76 percent and 47 percent had four or more cards which may include any type of credit account. On average, the amount of

money owed by these credit cards is $2,169. About one-fifth (21 percent) of these undergraduate students revealed that their credit card balance is paid each month in full and only 4 percent have their parents responsible for paying their credit cards (Mae, 2005). Credit card debt, the author opined, it needs a special concern since it was expected to be paid back with 18 percent or higher interest rate while the student's educational loan interest is typically lower than this, and in 2005 it was at 5percent interest rate. The finding from Cude *at al.* (2006) in the study at University of Georgia (UGA) was that students prefer instant response in financial management, including online financial services and using electronic. Some of students revealed that they prefer using online banking and online access to their credit cards accounts. These students do note mark down their checkbooks to track their balance. However, they could check their bank account balance (normally to avoid over drafting) and managing their credit card charges in relation to their credit limit.

Mahdzan and Tabiani (2013) assert that the benefits of saving goes a long way into benefiting both households and the entire nation as it makes a provision of an infrastructure development and a base long-term investments for every country that contributes towards growth of an economy. Saving also provides a base or support for a country against financial crisis and economic downturns. Lusardi and Mitchell (2007) shows that financial literacy influence the level of saving for both male and female individuals. Pillai, Carlo, and D'souza, (2010) argues that when people are still young, they hardly practice a basic financial skills such as budgeting, economical spending, developing a regular savings plan, or planning for long term requirements. Higher amount of student's loan or credit card debt can negatively affect people's ability to accumulate wealth especial for young people (Lusardi, Mitchell, and Curto, 2009).

Some studies have indicated that many students fail to keep a written budget (Henry, Weber, and Yarborough, 2001). However (Henry *et al.*, 2001) discovered that female students normally keep budgets compared to male students. These female students also use the recommended financial practice such as planning spending, having a shopping list with them and saving on the regular intervals. Danes (1994) argues that students with higher financial literacy have the ability to draw a cautious budget of their daily expenses. Consequently, a higher savings rate has a correlation with the higher level of financial literacy (Danes, 1994). In a 2001 study by the U.S. General

Accounting Office, from surveyed students 33percent indicated that they got a credit card before they enrolled at a tertiary school, and while those who acquired a credit card during their first year at tertiary level made 46 percent. From the survey it was evident that younger people are having debt management strain which is revealed in statistics revealing that bankruptcy filings by debtor's bellows age 25 between 1991 and 1999 increased by 51 percent (GAO, 2001). Reed (2008) showed that in a period of a decade (1997-2007) there was an increase on a student loan debt from $9,250 to $19,200 on average for undergraduate, this was a 58 percent increase after accounting for inflation. In between year 2006 and 2007, college student debt for loan on average rose by 6 percent, from $18,976 to $20,098 respectively. Additionally, in 2004 a growth of 74 percent from $946 to $1645 in 2009 was recorded as median credit card debt increase (Mae, 2009). A debt may have a serious implications to one's life and may result into students deciding against furthering their studies because of it. A poll of young adults ages 22 to 29 found that, because of their debts 30 percent of them are worried about furthering their studies frequently while 29 percent had put off their education (Lusardi, Mitchell and Curto 2010).

Fry and Hinze-Pife (2010) report that in the United States of America Undergraduate College students have dramatically risen their borrowing habit in recent years. Haughwout, Lee, Scally and van der Klaauw (2015) argue that Student loans are an important tool for financing college education for many students. Fry and Hinze-Pife (2010) discovered that 50 percent of students who graduated for a Bachelor degree in 2008 had more borrowing (in inflation-adjusted dollars) compared to their 1996 graduate counterparts, whereas associate's degree graduates or undergraduate certificate recipients in 2008 borrowed twice more than their 1996 counterparts had borrowed, according to a new analysis of National Center for Education Statistics data by the Pew Research Center's Social and Demographic Trends project. They furthermore made a discovery that in 2008, 60 percent of all graduates had borrowed, compared with about half (52 percent) in 1996. In 2008, the average loan amount for a student who graduated for a bachelor's degree was more than $23,000, in comparison with a slightly more than $17,000 in 1996. For students who received associate's degrees and certificate, the average loan amount increased from about $7,600 to more than $12,600 (all figures in 2008 dollars). The research also discovered that the amount of money borrowed gradually increased for all types of degree and type of schools between 1996

and 2008.Students who received their bachelor degrees in 2008 had borrowed more than $15,000, an increase of more than 50 percent since 1996 (Fry and Hinze-Pife, 2010).

3.7. Financial Behavior

A study by FinMark Trust (2007) indicates that 46 percent of individuals in the Living Standard Measures (LSM) Groups 1 – 5 are below 30 years of age and further suggests people between the age of 18 and 29 years (across all LSM groups) have a great propensity for debt, this has forced them to resort on the informal source of debts like borrowing money from friends and family members to fuel their consumption-based lifestyles. The South African Advertising Research Foundation's indicates that, in Southern Africa, the LSM has become the most widely employed marketing research instrument. It splits the population into 10 LSM groups, 10 (highest) to 1 (lowest). Further to this, on average the income levels relative to sub-groups have seen a decline which put savings under a great pressure between 2006 and 2007.

Young adults (across all LSM) who have savings or transaction accounts make up 38 percent, whilst 44 percent reveal that they regularly try to save try to save regularly. Poverty level will persist to future generation unless the saving culture is instilled in this subgroup. Financial situation, financial awareness and financial attitude primarily drive their saving culture. To have a sustainable saving culture, people need to be financially literate. In their study (Heneger and Cude, 2016) found that the age group of 18-24 which they used as a reference age was significantly related to a long-term financial behavior. A long term financial behavior refers to retirement savings and investment behavior. The odds ratio in this study indicated that the age group 25-34 had engaged in a long-term behaviours compared to the age group of 18-24. In the OECD (2014) study about the PISA in 2012, it was reported that in Shanghai-china students are likely (38 percent) to answer that they save changing amounts of money at even intervals (monthly or weekly). The study further indicated that students who save same amount of money on a weekly or monthly basis make up to 19 percent whilst those who save only when they have money to spare constitute about 17 percent and only 16 percent save when they want to buy something. 8 percent of students responded that they do not save any money and 3 percent responded that they do not save money because they do not have money. Kempson, Atkinson and Collard (2006) after

conducting their study about young people whose families were eligible for the Child Trust fund in United Kingdom, they discovered that children and young people saved for a specific purpose like to buy a certain good at a given time. Ashby, Schoon and Webley (2011) in their study, they indicated that the fact that the majority of students specified that they would save is encouraging for their future. A United States of America study by (Friedline, Elliott and Nam, 2011) discovered that having saving account at an adolescence stage is significantly related to frequent savings.

Thomson (2014) in his study for PISA in 2012 reports that students in Australia were questioned a series of queries to prompt their opinions about who inspires their spending behavior. The response rate of students revealed that almost three-quarter of students are influenced by the need to 'fit in' when they spend their money, however the financial literacy score between students who responded positively and negatively on the question displayed no significant difference. On who influences their spending behavior students also indicated that the commercials on TV play a significance role, with 72 percent of students indicating so whilst 61 percent of students indicated that other forms of advertising influenced their spending behavior in Australia. Prairie Research Associates (2008) obtained data from the Canadian University Survey Consortium to study budgeting and credit card behaviors of university undergraduates. The response rate of the students from a sample of 11,981 students across 31 participating universities was low at a rate of 40 percent. The finding was that students who had at least one credit card made 71 percent and those with at least two credit cards made 20 percent. Most students (78 percent) who own credit cards paid their balance monthly despite a widespread availability of credit card. However, about 11 percent of credit card holders carry a balance of over $1,000.

Cude *et al.*. (2006) in their study conducted at Louisiana State University (LSU) report that based on the risk category, students who did not own a single credit card made approximately one-half of the not at-risk and tended to be outspoken concerning the hazards of credit card use/abuse. The other half who reported that they have only one credit card which they treat as a debit card, they immediately pay the balance before interest rates are charged. Furthermore, the authors also discovered that the group that has credit cards viewed it as a way to establish a good credit ratings. In contrast, the financially at-risk group did not show to be cautious about having credit cards (or at least not until they were deeply in debt). Maintaining a zero balance was not seen as important

action from many of those students who have credit cards. Henry *et al.* (2001) found a majority of the students at University of Louisiana at Lafayette exercised a poor financial behavior of not having or using a written budget. However from those who had a written budget, females and elder students were likely to follow their budget. Chen and Volpe (1998) discovered that from a survey of 924 students from both undergraduate and graduate at multiple universities, students who were financially literate had a better financial decision such as budgeting, spending less than their income, were more likely to invest regularly and have adequate insurance.

Conclusion

This chapter looked at the concept of financial literacy and the different ways which authors define the concept financial literacy. Furthermore, it looked at the importance of financial literacy in the decision making by consumers. The role of socio-economic and demographic attributes on financial literacy was also covered in this chapter. This chapter also discussed how financial literacy affects financial attitudes and financial behaviour from various studies. The purpose of covering all these concepts was to inform us on how each of those socio-economic and demographic variables influence the level of financial literacy by students. This is important for this study as it attempts to assess the level of financial literacy amongst tertiary students with University of Venda as a reference.

Chapter four: Research Method

This chapter highlights how the study acquired data/information from University of Venda students who were registered in 2016 academic year. The chapter outlines each and every step taken from the decision on the sample size to the collection of data. The chapter also shows, in detail, how the variables were selected and measured for the purpose of this study. Furthermore this chapter outlines all data analysis procedure that was taken in this study.

4.1. Methodology

The study is conducted at the University of Venda, focusing on students, regardless of their level of study, as the target population. To sample these students, the study has used stratified sampling method since the targeted population consisted of students from different schools, who may have had different experiences in financial literacy. The study used subgroups or strata to gather the data from the University students. The subgroupings were based on gender, the school where the student was registered, and the level of study.

4.2. Selection of respondents

The University of Venda has eight schools, and consequently the study has eight strata. In each and every strata, students were classified according to their level of study, then finally according to the gender. In each level of study, the distribution of questionnaires (see annexure 4) was proportional to the number of students per gender. In particular, the respondents were students who were registered at the University of Venda from any level from first year (Undergraduate) to post-graduate students from different faculties.

4.3. Sampling Procedure

The study used a stratified random sampling for the collection of data. This enabled every student an equal chance to participate in the study. The total sample for the study was 384 (see annexure 1 for calculations) students who were proportionally selected according to the size of students in

the eight schools strata identified. The list of students was obtained from the University's Institution for Planning and Quality Assurance (IPQA) unit.

The study had four steps for the sampling procedure:

Step one: here, the study calculated the proportional number of students per school, and the resulting number was used for the sample size (see annexure 2).

Step two: here, the study obtained the proportional number of students per level of study per each school (see annexure 3). Schools and not departments were used.

Step three: The study also proportionally selected the number of students to interview per gender in each level of study from all schools (see annexure 3).

Step four: Finally, systematic sampling was employed to obtain the desired sample of 384 for the study. This was achieved by systematical selecting every 10th student to interview from the list of students, as provided by the School Administrator, per level of study and by gender from each school until we got the proportionate number of students specified per level of study, by gender and by school to be included in our questionnaire survey.

4.4. Data collection

The study used primary data which was obtained through the administration of questionnaires (see Annexure 4) that was distributed to a sample of University of Venda students in the different schools. The questionnaire included questions on savings, borrowing (debt), returns on (investment) and budgeting.

Our questionnaire was divided into three sections, first being personal information of the student; the second section contain questions to assess the level of financial literacy among students; while the third section asked about how students make financial decisions (behaviour).

4.5. Data Analysis

4.5.1. Data Analysis Package

For all data analysis in this study, the IBM SPSS statistic version 24 release 24.0.0.0 64- bit edition was used. The method of analysis comprised of, descriptive statistics, logistic (probability) regression analysis, Pearson's correlation as well as Chi-square analysis to establish relationships among variables.

Measurement of Variables

4.5.2. Financial literacy

To measure the level of financial literacy amongst students, the study uses the central tendency measure of sample median on the responses to a number of financial literacy questions from a sample of University of Venda students. A student was classified as financially literate, if his/her average score on all the financial literacy questions (See Annexure 3) was greater than or equal to the median score for the entire sample of students, otherwise a student was classified as not being financially literate. Financial literate (FL) was therefore a binary variable represented as follows: FL= 1, if a student's average score was ≥ the sample median, and 0 otherwise**.**

The disadvantage of this method of measuring financial literacy was that, if the sample median score was low, this would mean that students were not well equipped and literate to the standard that is acceptable for a person to be categorized as financial literate compared to other studies made by other authors; however, the advantage was that if a sample median was low, those students who scored above sample median would be literate relative to those who scored lower than the sample median in this study.

4.5.3. Socio-economic and Demographic Determinants of Financial literacy

Having measured the level of financial literacy, the next step was to explore which demographic and socio-economic attributes of students influence the level of their financial literacy. To identify the relationship between financial literacy and socio-economic and demographic variables, the study first used the bivariate analysis in a form of Pearson's chi-square analysis.

The following step was to analyze the impact of socio-economic and demographic characteristics, on financial literacy in this study. To accomplish this step the model that was used is specified below as follows:

Logistic Model regression model

$$\text{Log}[\frac{P}{1-P}]=\beta_0(\text{Constant})+\beta_1(\text{gender})+\beta_2(\text{level})+\beta_3(\text{Nationality})+\beta_4(\text{Parent\_education})+\beta_5(\text{Parent\_occupation})+\beta_6(\text{School})+\beta_7(\text{Age})\beta_8(\text{monthly\_allowance})+\varepsilon \quad \ldots\ldots 4.1$$

Where

B_n are the coefficients of the socio-economic and demographic variables.

P	= is the probability of students being financially literate
Financial literacy	=1 if financial literate, 0 otherwise
Gender	=1 if gender is male, 0 otherwise.
Age	= Student actual age
Level: #Fourth year	=0, base category
First year	=1 if first year level, 0 otherwise
Second year	=1 if second year level, 0 otherwise
Third year	=1 if third year level, 0 otherwise
Nationality	
South African	=1 if participant is South African, 0 otherwise
Parental education background	
#Degree	= 0, base category
No matric	= 1 if parent education is no Matric, 0 otherwise

Matric	=1 if parent education is Matric, 0 otherwise
Certificate/Diploma	=1 if parent education is certificate/diploma, 0 otherwise

Parental/guardian Occupation

#Pensioner	=0, base category
Unemployed	=1 if parent occupation is unemployed, 0 otherwise
Self-employed	=1 if parent occupation is self-employed, 0 otherwise
Employed	=1 if parent occupation is employed, 0 otherwise

School

#Management Sciences	=0, Base category
Agricultural sciences	= 1 if school is Agricultural Sciences, 0 otherwise
Education	=1 if school is Education, 0 otherwise
Environmental Sciences	=1 if school is Environmental Sciences, 0 otherwise
Health Sciences	=1 if school is Health Sciences, 0 otherwise
Human and Social Sciences (HSS)	=1 if school is HSS, 0 otherwise
Law	=1 if school is Law, 0 otherwise
Mathematics and Natural Sciences	=1 if school is Mathematics, 0 otherwise

In this logistic regressions model the odds ratio are used to interpret the results as it gives a rise into the power. This means that we measure the association between the exposure and the outcome.

4.5.4. Establishing the relationship between financial literacy and financial decisions

The Pearson product-moment correlation coefficient (or Pearson correlation coefficient, for short) is a measure of the strength of a linear association between two variables.

The literature reviewed informed us that, the more an individual is financially literate, the more they can take an informed financial decision. Mahdzan and Tabiani (2013), as was also indicated by Beal and Delpachtra (2003), indicates that people who are financially literate are likely to have

good financial management and are responsible financially. This left us with an assumption that there is a linear relationship between financial literacy and financial decision making. Therefore, we used the Pearson's Product Movement to measure the strength of the relationship between the financial literacy and financial decisions which are, Budgeting, Investing, Saving and Borrowing. The Pearson correlation coefficient, takes a range between +1 and -1. When a result comes with a value of 0, it indicates that there is no correlation between two variables. When a result comes with a value greater than 0, it indicates that there is a positive correlation between two variables; which means when a value of one variable increases, another value increases. When a result comes with a value less than 0, there is a negative relationship between the two variables, this means when a value of one variable increase, the value of another decreases.

4.5.5. Estimation Strategy

The study then conducted a regression analysis to determine the impact of the financial literacy on the financial decision variables that were identified in the study respectively. The identified decision variables were used as dependent variables that were determined by the financial literacy and other demographic coefficient used on the regression above. We ran four regressions, using the four decisions identified variables as our dependent variables against the independent variable financial literacy and socio-economic and demographic coefficient variables. The equations used are as follows:

Logistic regression model

$$LogFD_i[\frac{P}{1-P}]=\beta_0(Constant)+\beta_1(fin\_lit)+\beta_2(level)+\beta_3(Nationality)+\beta_4(Parent\_education)+\beta_5(Parent\_occup)+\beta_6(School)+\beta_7(Age)+\beta_8(Monthly\_allowance)+\beta_9(gender)+\varepsilon \quad (4.2)$$

Where:

P is the probability of an Agree response from students.

All the financial decision were dichotomous in our questionnaire

FD_i = Financial Decision which are:

Savings	=1 if Agree, 0 otherwise
Borrowing	=1 if Agree, 0 otherwise
Budgeting	=1 if Agree, 0 otherwise
Investing	=1 if Agree, 0 otherwise

B_n are the coefficients of the socio-economic and demographic variables.

Ɛ is the Error term.

All these equations were tested in independent regressions at the significance level of 0.01, 0.05 and 0.1. This was to help in identifying the impact that financial literacy has on the financial decision making of our sampled population.

There were then follow up questions which were done through further descriptive statistics. Some of the questions included the payments intervals, number of credit cards a student has, and saving frequency.

To validate the effectiveness of the survey questionnaire, it was necessary to pretest it before actually using it. Pretesting helped to determine the strengths and weaknesses of the survey concerning question format, wording and order.

Conclusion

This chapter outlined in detail all the methods that were used in this study. The chapter started by discussing the selection of the respondents for the purpose of this study. It also displayed the process of data collection and data analysis methods that were used. The main data analysis method that was used in this research project was the logistic regression. However the bivariate test methods were also employed in this study. A successful implementation of this methodology enabled us to reach our objectives.

Chapter five: Data Analysis and interpretation of results

5.1. Introduction

This chapter analyzes and interprets the results of this study. This chapter begins by providing the structure of the survey questionnaire used to gather the information. It then further goes on to data analysis where we measure the level of financial literacy of students at the University of Venda. From measurement of financial literacy, the chapter moves on to the descriptive statistics of all demographic and socio-economic variables. Further descriptive statistics were discussed on the financial behavior of students. Lastly, the chapter entails the multiple logistic regression results which are broken into two structures. The first logistic multiple regression measures the impact of the demographic and socio-economic variables on the level of financial literacy of students. The second logistic regressions measure the impact of financial literacy on the financial behaviour by students based on the identified decision of Budgeting, Savings, Investing and Borrowing.

5.2 The Survey Questionnaire

The questionnaire was divided into three sections to accommodate the structure of our objectives and research questions. Section A contains nine items dealing with personal information about the respondents as well as their socio-economic characters such as parental education background and occupations. Section B contains eight multiple choice questions to assess the respondent's knowledge related to financial literacy. These questions are based on the identified variables that are selected as important for financial literacy in this study. Those identified variables are borrowing, budgeting, investing and savings. Section C of the questionnaire contains the financial decision of the respondents; those questions include the saving frequencies and decisions on other selected variables for this study (borrowing, budgeting, savings and investing).

5.3. Data Analysis

5.3.1. Descriptive statistics

Table 5.1. Socio-Demographic characteristics of the sample (N-373)

Characteristics	Number	Percentage
Gender		
Male	*193*	*51.7*
Female	*180*	*48.3*
Level of study		
First year	*105*	*28.2*
Second Year	*114*	*30.6*
Third Year	*85*	*22.8*
Fourth year	*69*	*18.5*
Schools		
Agricultural sciences	*18*	*4.8*
Education	*82*	*22*
Environmental Sciences	*43*	*11.5*
Health Sciences	*35*	*9.4*
Human and Social Sciences	*61*	*16.4*
Law	*29*	*7.8*
Management Sciences	*62*	*16.6*
Mathematics and Natural Sciences	*43*	*11.5*
Nationality		
South African	*362*	*97.1*
International	*11*	*2.9*
Parental Qualification		
No Matric	*85*	*22.8*
Matric	*95*	*25.5*
Certificate/Diploma/s	*91*	*24.4*

Degree/s	*102*	*27.3*
Parental Occupation		
Unemployed	*86*	*23.1*
Self-Employed	*44*	*11.8*
Employed	*225*	*60.3*
Pensioners	*18*	*4.8*
Age-Group		
17-22	*257*	*68.9*
23-29	*105*	*28.2*
30-35	*11*	*2.9*
Pocket Money		
R100-1000	*253*	*67.8*
R1001-1500	*61*	*16.4*
>R1500	*59*	*15.8*

Source: Survey data.

5.3.1.1. Financial literacy

To measure the level of financial literacy amongst students, the study used the central tendency measure of sample median of the responses to eight questions about financial literacy from a sample of University of Venda students. The questions were based on the respondent's knowledge on borrowing, budgeting, investing, saving as well as ability to apply numerical skills in finance related issues. A student was classified as financially literate, if his/her average correct score on all the financial literacy questions was greater than or equal to the median correct score for the entire sample of students; otherwise a student was classified as not being financially literate. Financial literate (FL) for the study purposes is therefore a binary variable represented as follows: FL= 1, if a student's average score is ≥ the sample median, and 0 otherwise.

Table 5.2. Students financial literacy score

(i) Statistics

N	**373**
Mean	6.3968
Median	7.0000

(ii) Students' Score frequency

Correct answers	Frequency	Percentage
2	4	1.1
3	4	1.1
4	20	5.4
5	48	12.9
6	97	26.0
7	*136*	*36.5*
8	*64*	*17.2*
Total	**373**	**100**

Source: research data

Table 5.2. (i) Shows the median score for the financial literacy questions on the identified variables (borrowing, budgeting, investing and saving) for the sample of students. From the scores of the respondents, the calculated median is 7.000, and therefore a student whose score is seven and above is considered to be financially literate. As seen from the frequency table 5.2 (ii), the total number of students who scored equal or above the median is 200 and constitute 53.7 percent of the study sample. Students who are considered financially illiterate constitute 46.3 percent of the sample.

5.3.1.2. Socio-economic variables

The following tables present the financial literacy status of responding students based on their socio-economic and demographic characteristics.

i) Table 5.3. Gender

	Gender		Total
	Female	Male	
Financial Literate	102 (27.35)	98 (26.27)	200 (53.7)
Not Financial Literate	78 (21)	95 (25.47)	173 (46.3)
Total	180 (48)	193 (52)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

Table 5.3 indicate that 102 female students are financially literate compared to 98 male students out of 200 financial literate students. On the other hand 95 male students were regarded as financially Illiterate compared to 78 female students out of 173 financially illiterate students. Another observation from the table is that although female students in the sample were 48 percent, they constitute a higher proportion of the financially literate students, implying that female students at the University of Venda are on the average more financially literate than their male counterparts. Whether or not there is statistically significant difference in financial literacy would be confirmed in the bivariate and multivariate regression analysis which follows shortly.

ii) Table 5.4. Level of study

	Level				Total
	1st Year	2nd Year	3rd Year	4th Year	
Financial Literate	48 (12.87)	64 (17.16)	47 (12.60)	41 (11)	200 (53.7)
Not Financial Literate	57 (15.28)	50 (13.40)	38 (10.19)	28 (7.5)	173 (46.3)
Total	105 (28)	114(31)	85 (23)	69 (18)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

On the level of study, the study found that with students enrolling in a year 1, only 12.87 percent students are regarded as financially literate as compared to 15.28 percent students who are not financially literate. When students climb their education ladder to second year level there is an improvement because 17.16 percent of students are financially literate while 13.40 percent students are financially illiterate. A third year level indicates that 12.60 percent of students are financially literate compared to 10.19 percent students who are not financially literate. Out of a

total sampled population, 11 percent of students who are financially literate are enrolling in a fourth year level. This result as expected indicate that as students climb their educational ladder their financial literacy also improves.

iii) Table 5.5. Pocket money group

	Pocket money			Total
	R100-1000	R1001-1500	>R1500	
Financial Literate	35 (9.4)	122(32.70)	43 (11.5)	200 (53.7)
Not Financial Literate	24 (6.4)	131 (35)	18 (4.8)	173 (46.3)
Total	59 (16)	253 (68)	61 (16)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The results indicate from a group that receives less than R1000 per month, only 9.4 percent of students are financially literate compared to 6.4 percent of students who are not financially literate. While from a group that receives an amount between R1001-1500, only 32.70 percent of students are financially literate compared to 35 percent of students who are not financially literate. 11.5 percent of students who are financially literate receive an amount which is greater than R1500 and 4.8 percent of them are not financially literate.

iv) Table 5.6. Age Groups

	Age groups			Total
	17-22 yrs	23-29 yrs	30-35 yrs	
Financial Literate	129 (34.6)	62(17)	9 (2.4)	200 (53.7)
Not Financial Literate	128 (34)	43 (11.5)	2 (0.5)	173 (46.3)
Total	257 (69)	105 (28)	11 (3)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The age group comparison indicate that from the students in the age group of 17-23, only 34.6 percent of student are financially literate while 34 percent students are not financially literate out of 69 percent of total students in this age group. With the age group of 24-29 year old only 17 percent of students are financially literate compared to 11.5 percent of students who are not

financially literate. The older age group of 30-35 year old, 2.4 percent of students are financially literate compared to only 0.5 percent of students who are not financially literate. This results implies that, an older student is more likely to be financial literate compared to being not financially literate, it is evident enough on the age group 30-35 year.

v) Table 5.7. Parental qualification background

	Parental qualification				Total
Financial Literate	No Matric	Matric	Certificate/Diploma	Degree	
	36 (9.7)	38 (10.2)	67 (18)	59 (16)	200(53.7)
Not Financial Literate	49 (13.14)	57 (15.3)	24 (6.4)	43 (11.5)	173(46.3)
Total	85 (23)	95 (26)	91 (24)	102 (27)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

From the students whose parents' educational level is below matric, the results indicate that they make 9.7 percent of students that are financially literate compared to 13.14 percent of students who are not financially literate. However with students whose parents are holding matric, only 10.2 percent of them are financially literate while 15.3 percent of students in this group are not financially literate out of 373 students. When looking at students whose parents have certificate/ diploma, 18 percent of students are financially literate compared to only 6.4 percent students who are not financially literate. Furthermore the results indicate that out of the total population of 373, on 16 percent of students who are financially literate have parents who obtain degree while 11.5 percent of them are not financially literate. This interesting finding implies that students whose parents have post matric qualification are more financially literate.

vi) Table 5.8. Parental/guardian Occupations

	Parents occupation				Total
	Unemployed	Self-employed	Employed	Pensioner	
Financial Literate	29 (8)	29 (8)	132 (35.4)	10 (3)	200 (53.7)
Not Financial Literate	57(15.3)	15 (4)	93 (25)	8 (2.14)	173 (46.3)
Total	86 (23)	44 (12)	225 (60)	18 (5)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The parent's occupation shows that from students whose parents are unemployed only 8 percent are financially literate compared to only 15.3 percent students who are not financially literate from a total number of 373 students. 8 percent of students who are financially literate are those with parents who are self-employed while 4 percent of them are not financially literate. Furthermore from students whose parents are employed only 35.4 percent are financially literate while 25 percent of them are not financially literate. Finally from students whose parents are pensioners, only 3 percent are financially literate while 2.14 percent of them are not financially literate. As expected from the literature, students whose parents are unemployed are likely to be financially illiterate while students whose parents are employed are more financially literate whether there is a significant relationship or not we will confirm that in our regression analysis. Lusardi and Mitchell (2014) found that students of higher socio-economic status are expected to perform better than students of lower socio-economic status.

vii) Table 5.9. Schools

	Schools								Total
	Man_scien	Agri	Educati	Envi_sci e	Health	HSS	Law	Maths	
Financial Literate	37 (10)	9 (2.4)	54 (14.5)	20 (5.4)	18 (5)	35 (9.4)	11 (3)	16 (4.3)	200 (53.7)
Not Financ Literate	25 (7)	9 (2.4)	28 (7.5)	23 (6.2)	17 (4.5)	26 (7)	18 (5)	27 (7)	173 (46.3)
Total	62 (17)	18 (4.8)	82 (22)	43 (11.5)	35 (9.4)	61 (16)	29 (7.8)	43 (11.5)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The results indicate that 10 percent of the financially literate students are enrolling in a school of Management Sciences while 7 percent of students who are financial illiterate are in the same school. The school of Agriculture has equal percentage for financially literate students and financially illiterate students, contributing 2.4 percent to the sample size, respectively. Schools of Environmental sciences, Law and Mathematics have higher rates of financially illiterate students compared to the financially literate students. The school of Education has contributed 14.5 percent of students who are financially literate, however it also contributes 7.5 percent of students who are not financially literate.

5.3.1.3. Financial behavior pattern

This section looks at the behavior pattern of the students, which includes the behavior on the variables that were selected on this study, that is, borrowing, saving, budgeting and investing. This will enable us to discover students' behavior and the influence the financial literacy level on their financial decision making.

(i). Table 5.10. Budget/ financial planning

Budget/ financial Plan			
	Do you make financial planning?		Total
	Agree	Disagree	
Financial literate	136 (36.5)	64(17.16)	200(53.7)
Not Financial literate	87(23.32)	86(23.05)	173(46.3)
Total	223 (60)	150 (40)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The results indicate that only 36.5 percent of students who make financial planning are regarded as financially literate, while 23.32 percent of students who agree that they make financial planning are not financially literate. Another interesting finding is that, 17.16 percent of students who do not make financial planning are financially literate while 23.05 percent of students who do not make financial planning are not financially literate. Overall the results are also indicating that 60 percent of the total population makes financial planning while 40 percent does not make financial planning. This results implies that, more financially literate students are capable of having budget or monthly financial planning.

(ii). Table 5.11. Investment

Investments			
	Do you have any investment?		Total
	Agree	Disagree	
Financial literate	55 (15)	145 (39)	200 (53.7)
Not Financial literate	18 (5)	155 (41.6)	173 (46.3)
Total	73 (20)	300 (80)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The findings indicate that 15 percent of students who have investments are financially literate while 5 percent of them are not financially literate. Although investment is an important financial product, a large number of sampled students at University of Venda do not invest. A total of 80 percent of students do not invest from the sampled population. 39 percent of students who do not invest are financially literate while 41.6 percent of them are not financially literate. Given the geographical area of the University of Venda which is based in the rural area, less cost investment opportunities may not be available to students which may result into less investments by students.

(iii) Table 5.12. Savings

Savings			
	Do you save your pocket money?		**Total**
	Agree	**Disagree**	
Financial literate	123 (33)	77 (20.64)	200 (53.7)
Not Financial literate	85 (23)	88 (23.6)	173 (46.3)
Total	208 (56)	165 (44)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

A total of 208 students agreed that they do save, this means 56 percent of the total population is able to save part of their monthly pocket money and 44 percent does not save their monthly pocket money. From those who save, 33 percent are financially literate while 23 percent are not financially literate students. Only 20.64 percent of students who do not save are financially literate, however 23.6 percent of them are not financially literate. Students who are financially literate are more capable of saving than students who are financially illiterate.

(iv). Table 5.13. Saving frequency

Saving frequency						
	How often do you save in three months?					Total
	1	2	3	4	6	
Financial literate	46 (22.11)	42 (20.19)	31 (14.90)	1 (0.5)	1 (0.5)	121 (58)
Not Financial literate	32 (15.4)	31 (14.90)	24 (11.54)	0 (0)	0 (0)	87 (42)
Total	78 (37.5)	73 (35.1)	55 (26.4)	1 (0.5)	1 (0.5)	208 (100)

Source: research data

NB: Figures in parenthesis are in percentages

In table 5.12, it was indicated that 208 students agreed to save their pocket money. By saving, the study refers to an event where a student puts aside an amount of money and never uses it before the next three months period. A saving frequency looks at how many times a student saves in a space of three months. A table (5.13) above has the results of the savings frequency of students; 22.11 percent of students who save once in three months are financially literate while 15.4 percent of them are not financially literate. Only 20.19 percent of students who save twice are financially literate and 14.90 percent are not financially literate. Our results furthermore indicate that, 14.90 percent of students who save three times a months are financially literate while 11.54 percent are not financially literate, this means that on average a student saves every month in a space of three months. None of the financially illiterate students save more than three times a month's however 0.5 percent of financially literate students save four and five times respectively. From students who save, 58 percent are financially literate while 42 percent are not financially literate. This result implies that financial literacy plays a role in the savings behavior of students.

(v). Table 5.14. Credit Card

Credit card			
	Do you have a credit?		Total
	Agree	Disagree	
Financial literate	84(22.6)	116 (31)	200(53.6)
Not Financial literate	62(16.4)	111(30)	173 (46.4)
Total	146 (39)	227 (61)	373 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The results indicate that 39 percent of students do have credit cards and only 61 percent do not have credit card accounts. Only 22.6 percent of students who have credit are financially literate while 16.4 percent of them are not financially literate. From students who do not have credit cards, 30 percent of them are not financially literate while 31percent are financially literate. An overall finding is that, many students in the sampled population do not have credit regardless of them being financially literate or not.

(vi). Table 5.15. Number of credit card

Number of credit card							
	How many credit/account cards do you have?						Total
	1	2	3	4	6	8	
Financial literate	59 (40.41)	18 (12.33)	5 (3.42)	1 (0.7)	1 (0.7)	0 (0)	84 (57.7)
Not financial literate	41 (28.08)	15 (10.27)	4 (2.74)	0 (0)	1 (0.7)	1 (0.7)	62 (42.3)
Total	100 (68.5)	33 (22.60)	9 (6.16)	1 (0.7)	2 (1.4)	1 (0.7)	146 (100)

Source: research data

NB: Figures in parenthesis are in percentages

The results indicate that, for students who have one credit card, 40.41 percent are financially literate while 28.08 percent are not financially literate. 12.33 percent of students who hold two credit card accounts are financially literate, however 10.27 percent are not financially literate out of 146 students who reported to have credit account cards. Furthermore, 3.42 percent of students who hold three credit cards are financially literate while 2.74 percent of students with three credit cards and are not financially literate. This results implicate that, regardless of the level of financial literacy, students are likely to have credit cards.

(vii). Table 5.16. Bill Payment

Bill payment					
	How often do you pay credit bills				**Total**
	I pay min	Pay between min and full	I pay in a full	My parents pay my credit bills	
Financial literate	25 (17.12)	15(10.27)	20(13.70)	22 (15.05)	82(56.16)
Not financial literate	24 (16.44)	10(6.85)	15 (10.27)	15(10.27)	64(43.84)
Total	49 (33.56)	25 (17.12)	35(23.97)	37(25.34)	146(100)

Source: research data

NB: Figures in parenthesis are in percentages

A question about who pays their credit card debts was posed to students who have credit cards and the statistical results are as follows:

17.12 percent of credit card holding students who are financially literate said they (themselves) pay the monthly minimum while 16.44 percent who pay minimum are not financially literate. This implies that students feel responsible for the repayment of their credit regardless of their financial literacy level. 10.27 percent of students who pay between minimum and full amount of credit are financially literate, however 6.85 percent of them are not financially literate. Students who settle

their debts in full make 23.97 percent of students who are having credits, 13.70 percent of them are financially literate and 10.27 percent are not financially literate. 15.05 percent of students who are financially literate revealed that their parents pay their bills while 10.27 percent of them are not financially literate. Our results implicate that students who are financially literate have their bills paid better than students who are not financially literate.

5.4. Socio-economic and Demographic Determinants of Financial literacy.

The bivariate analysis was used to analyze the relationship between the financial literacy and each of the demographic and socio-economic variables. This was to enable us to establish if there is a correlation between the financial literacy and each of those socio-economic variables using a Pearson's chi-square.

Table 5.17. Chi-square test results

Variable(s)	Pearson's chi-square	Df(degree of freedom)	Sig (2-sided)
Schools	14.759	7	0.039**
Pocket money	53.122	41	0.097*
Parent educ background	26.803	3	0.000***
Parent occupation	18.697	3	0.000***
Gender	1.299	1	0.254
Age	23.134	17	0.145
Nationality	1.664	1	0.197

*(sig at 0.01***; 0.05** and 0.1*.)*

Source: research data

Schools

The results of the chi-square test indicate that the level of literacy is associated with the school that a student is enrolled in. With a chi-square value of 14.759 and a P value of 0.039 which is less than the conventionally accepted P value of 0.05, it can be concluded that there is a significant

relationship between financial literacy and a student's school. The specific school(s) which is (are) financially literate would be confirmed in logistic regression analysis which follows shortly.

Pocket Money

The results of the chi-square test indicates that the level of literacy is associated with the pocket money that a student gets. With a chi-square value of 53.122 and a P value of 0.097 which is less than the conventionally accepted P value of 0.1, it can be concluded that there is a significant relationship between financial literacy and a student's pocket money.

Parental Education Background.

The chi-square result test indicates that the level of literacy is associated with the parental educational background. With a chi-square value of 26.803 and a P value of 0.000 which is less than the conventionally accepted P value of 0.01, it can be concluded that there is a significant relationship between financial literacy and a student's parental education background.

Parental Occupation

The results of the chi-square test indicates that the level of literacy is associated with the occupation of student's parent. With a chi-square value of 18.697 and a P value of 0.000 which is less than the conventionally accepted P value of 0.01, it can be concluded that there is a significant relationship between financial literacy and a student's parental occupation.

The above bivariate analysis shows only four of the socio-economic variables have the significant relationship with being financially literacy. The variables are schools, pocket money, parent education background, and parent occupation. Whilst gender, age and student nationality do not have significant relationship with financial literacy.

5.4.2. Determinants of financial literacy

The results of the estimation of the Logistic model specified for the study (equation 4.1) are presented in Table 5.18. The table shows the demographic and socio-economic attributes in their respective categories.

The diagnostic tests results show that the R square has a 21 percent. This means that there is 21 percent of variance in the financial literacy that can be explained/ predicted by ones socio-economic and demographic attributes.

Age

The odds ratio shows that students between the ages of 23-29 are 0.202 times less likely to be financially literate compared to younger ones between 17-22 years of age. The P-value for the age category 23-29 years is 0.082, which is less than 0.1, indicating a statistically significant negative relationship between the age group 23-29 and financial literacy compared to the age group 17-22, at the 10 percent level of significance. This finding contradicts the literature from Chen and Volpe (1998) who argue age between 18 and 22 is the reason for a low level of financial literacy as people below 30 are still young and majority of them are in their early financial life cycle Another study that contradicted our results was that of Hasan *et al.* (2013) who found that senior students have a good financial literacy status compared to students who are in the first, because first year students are typically 17-19 year old and vulnerable to a lower financial literacy.

Table 5.18. Parameter Estimates of the logistic model of determinants of financial literacy among University of Venda students results

Variables		B	Sig.	Exp(B)
	Level (#4th year)		.676	
	level(1st year)	-.193	.626	.824
	level(2nd year)	.160	.676	1.173
	level(3rd year)	.117	.765	1.124
	Sex(1)	.245	.302	1.278
	SCH (#Management_Sci)		.167	
	SCH (Agriculture)	.450	.319	1.568
	SCH (Education)	.199	.754	1.220
	SCH (Environmental_Sci)	.910**	.045	2.484
	SCH (Health_Sci)	.366	.452	1.442
	SCH (HSS)	.178	.736	1.195
	SCH (Law)	.938**	.038	2.554
	SCH (Mathematics)	-.166	.758	.847
	Student Nationality(1)	-.791	.281	.454
	Parental qualification (#Degree)		.004	
	Parental qualification (No_Matric)	-.121	.786	.886
	Parental qualification (Matric)	-.617*	.081	.540
	Parental qualification (Cert/Diploma)	.707**	.044	2.027
	Parents occupation (#Pensioner)		.036	
	Parents occupation (Unemployed)	-.579	.359	.561
	Parents occupation (Self-employed)	.797	.262	2.219
	Parents occupation (Employed)	.168	.799	1.183
	AgeGroup (#17-22)		.200	
	AgeGroup(23-29)	-1.597*	.082	.202
	AgeGroup(30-35)	-1.415	.128	.243
	Pocket(#ZAR100-1000)		.076	
	Pocket(ZAR1001-1500)	-.190	.578	.827
	Pocket (>ZAR 1500)	.602	.151	1.826
	Constant	1.808	.169	6.098

Source: Research data.

*Note : Pseudo R^2 =0.212 ; Significance levels 0.01***; 0.05** and 0.1* ;#Base category*

Parents/Guardian educational background

With respect to the educational attainment of parents/guardians, four categories of educational qualifications were identified for this study. Non matriculate, matric, certificate/diploma and degree regardless of which degree/s, that is undergraduate to postgraduate, are all in the degree category. The base category is parents who have degrees.

Students with parents who have a matric as their highest qualification have the odds ratio of 0.540 times less likely to be financially literate compared to students whose parents have degree/s as their highest qualification. However there is significant relationship between financial literacy and the students whose parental education qualification is matric compared to those students whose parents educational background is degrees given a P-value of 0.081. The coefficient sign shows that there is a negative relationship between financial literacy and students whose parent educational background is matric compared to the students whose parents are degree holders. Students whose parents have certificate or diploma are 2.027 times more likely to be financial literate compared to students whose parent's educational background is degrees.

There is a significant relationship between students whose parents' educational background is certificate/diploma compared to students whose parents are degree holders with regard to financial literacy at 5 percent significant level. These findings support the finding which stated that parental educational background plays a positive role in determining the level of financial literacy for a student (Lusardi, Mitchel and Curto, 2010) found that students financially literacy level is strongly related to their mothers educational background , especially if the respondent's mother graduated from the college.

Schools

The University of Venda has eight different schools and the study collected data from all those schools. Sample students were categorized according to the school in which student was enrolled. The school of management science was our base category.

The odds ratio indicate that a student who is in the school of Environmental sciences is 2.484 times more likely to be financially literate compared to a student who is in the school of Management Sciences. The P-value of 0.045 indicate that there is a statistically significant relationship between

financially literacy and a student enrolling in the school of Environmental Sciences compared to a student enrolling in a school of Management Sciences.

The results further indicate that a student in the school of Law is 2.554 times more likely to be financial literate compared to a student who is in the school of Management Sciences. However there is a statistically significant relationship between enrolling in a school of Law as compared to enrolling in the school of Management Sciences with regard to financial literacy given the P-value of 0.038 which is less than 5 percent significant level.

There is no statistically significant difference between students enrolling in the schools of Agriculture, Education, Human and Social Sciences, Health Sciences and Mathematics as compared to students enrolling in the school of Management Sciences with regard to financial literacy. These results contradict the literature and findings from (Hasan *et al.*, 2013) who found out that there is a positive correlation between respondents who is majoring with commercial modules visa verse non-commercial major and financial literacy which indicate that students enrolled in commercial majors scored superior on the test of financial literacy compare with non-commercial majors. Furthermore the authors finding concluded that students who are in the stream of commerce, accounting and business are more knowledgeable than students who are in other schools that are non-commercial. Several authors including Beal and Delpachitra, (2003), Chen and Volpe (1998), Robb and Sharpe (2009), all cited in Mahdzan and Tabiani (2013) also indicate that student's major subjects of studies in university have important influence to personal financial literacy, and have indicated that commercial majors are more knowledgeable about personal finance than non-commercial majors.

Level of study, gender, pocket money, student's nationality and parent's occupation variables have no statistically significant relationship with being financial literacy given their P-values which are greater than 5 percent significance level.

Two schools were found to have a statistically significant relationship with being financially literate, and two socio-economic and demographic variables, namely the age and the parent qualifications, were also found to have a significant relationship with being financially literate. The next step is to diagnose which, between age and parental education background, could explain the difference between students enrolling in Law and Environmental Science as compared to Management Sciences with regard to financial literacy level. This is done because it was suspected

that students in the school of Management Sciences were expected to perform better than these two schools, yet they did not.

Simple T-test was performed to compare the means for students in the school of Management Sciences versus students from the School of Environmental Sciences and School of Law on the two socio-economic and demographic variables, that is, parental qualification and age of student that were found in our analysis to have a statistically significant relationship with financial literacy among students.

Table 5.19. Group Statistics

Variables	Student school	N (observation)	Mean
Parental qualification	Environmental	43	2.47
	Management	62	2.84
Age	Environmental	43	21.42
	Management	62	21.08

Variables	T	df	Sig.(2-tailed)
Parental qualification	-1.781	103	.078**
Age	-.207	103	.836

*(sig at 0.01***; 0.05** and 0.1*.)*

Source: research data

The mean for the school of Environmental Sciences is 2.47 and for school of Management Sciences is 2.84 on parental qualification variable. The results of the independent simple t-test on parent's qualifications background indicate that there is a statistically significant difference between students in the school of Environmental Sciences and Management Sciences. With a t-value of -1.781 and significance shown through a P-value of 0.078, this implies that students in a school of Environmental Sciences are significantly related to being financial literacy because of the influence of their parent's educational background compared to students in the school of Management Sciences.

For the age variable the mean for school of Environmental sciences is 21.42 and for the school of Management Sciences is 21.08. On the age variable, the independent sample test indicate that there is no statistically significant difference between students enrolling in a school of Environmental

Sciences and Management Sciences with a t-value of -0.207 and P-value of 0.836. The significant value if greater than 10 percent significance level. This results indicates that the difference between the students in the school of Environmental Sciences and Management Sciences with regard to financially literacy level is not explained by the student's ages.

Table 5.20. Group statistics

Variables	Student school	N	Mean
Parental qualification	Law	29	2.45
	Management	62	2.84
Age	Law	29	21.48
	Management	62	21.08

Variables	T	Df	Sig.(2-tailed)
Parental qualification	-1.594	89	.115
Age	-.328	89	.744

*(sig at 0.01***; 0.05** and 0.1*.)*

Source: research data

The mean for school of Law is 2.45 which is slightly lower than the mean for a school of Management Sciences which is 2.84. The results of the independent sample test on parent's qualification indicate that there is no statistically significant difference between students in the school of Law and Management Sciences, and this is shown by a t-value of -1.594 and a P-value of 1.115, which is more than a conventionally 10 percent significance level.

Age has a mean of 21.48 in the school of Law while in the school of Management sciences it has a mean of 21.08. For the age variable the independent sample test indicate that there is no statistically significant difference between students enrolling in a school of Law and Management Sciences with a t-value of -0.328 and P-value of 0.744. The results on table 5.19 indicate that none of the socio-economic variable identified to have a statistically significant relationship with being financially literate bring a difference between students enrolling in a school of Law and Management Sciences.

5.4.3. Determinants of financial literacy based on the level of study

From the results and analysis emanating from table 5.17., it was found that students enrolled in the schools of Environmental Sciences and Law are more financially literate compared to their counterparts in the school of Management Sciences. . This has raised a need to determine the cause of the differences between students in all schools per level. The assumption was that students in the school of Management Sciences would be scoring better at levels of study compared to students from other schools.

(i). First year

Students who are enrolling first year level modules in the school of Health Sciences are 0.075 times less likely to be financially literate compared to students in the school of Management Sciences. This is statistically significant at 5 percent level. There is a statistically significant difference between students enrolling a first year in a school of Law compared to a first year student enrolling in a school of Management Sciences with regard to financial literacy given a P-value of 0.050 which is less than a 10 percent significance level. However with the remaining schools, there is no statistically significance difference compared to first year students enrolling in a school of Management sciences.

Table 5.21.Determents of financial literacy per level of study

Levels	Variable (School category)	B	Sig	Exp (B)
First year	SCH(#Management_Sci)		.314	
	SCH(Agriculture)	-1.550	.178	.212
	SCH(Education)	-.332	.670	.718
	SCH(Environmental_Sci)	-1.136	.238	.321
	SCH(Health_Sci)	-2.586**	.040	.075
	SCH(HSS)	-1.356	.131	.258
	SCH(Law)	-2.729**	.050	.065
	SCH(Mathematics)	-1.083	.199	.338
Second year				
	SCH (#Management)		.331	
	SCH(Agriculture)	1.224	.275	3.401
	SCH(Education)	1.393*	.095	4.026
	SCH(Environmental_Sci)	1.285	.146	3.616
	SCH(Health_Sci)	.487	.650	1.627
	SCH(HSS)	1.478**	.039	4.382
	SCH(Law)	1.684*	.081	5.385
	SCH(Mathematics)	.220	.778	1.245
Third year				
	SCH (#Management)		.103	
	SCH(Agriculture)	-1.115	.471	.328
	SCH(Education)	2.192*	.083	8.949
	SCH(Environmental_sci)	.974	.381	2.647
	SCH(Health_sci)	1.531	.165	4.624
	SCH(HSS)	2.175*	.053	8.800
	SCH(Law)	-1.910	.204	.148
	SCH(Mathematics)	-.539	.650	.583

Source: Research data
*Significance levels 0.01***, 0.05** and 0.1**

The full variables tables are in the annexures 4-7

#Base category

(ii). Second year

In the second year, students' odds ratios are becoming increasingly high across all the schools. The regression results for second year students show that a student who is enrolling in the school of Education is 4.026 times more likely to be financial literate compared to a student enrolling in a

school of Management Sciences. A significance value of 0.095 indicate that there is a statistically significant relationship between students enrolling in a second year level in the school of Education as compared to students in the school of Management Sciences enrolling in the same level of study with regard to financial literacy. Enrolling in a school of Human and Social Sciences for the second year modules gives a student the odds ratio of 4.382 times more likely to be financially literate as compared to enrolling same level in the school of Management Sciences. A P-value of 0.039 indicate that there is a statistically significance relationship between financial literacy and enrolling in a school of Human and Social Sciences as compared to enrolling in the school of Management Sciences.

A student in a school of Law is 5.385 times more likely to be financial literate compared to a student in a school of Management Sciences. Enrolling for a second year in a school of Law is significantly related with being financially literate given a P-value of 0.081 which is less than 10 percent significance level compared to students enrolling for second year in a school of Management Sciences. Although they are positively related with being financially literate, students from schools of Agricultural Sciences, Environmental Sciences, Health Sciences and Mathematics are not statistically significantly related to being financially literate compared to students in a school of Management Sciences. A second year student is regarded as a senior student and this finding supports the literature from (Hasan *et al.*, 2013) who posit that senior students have a good financial literacy status compared to students who are in the first, because first year students are typically 17-19 year old and vulnerable to a lower financial literacy.

(iii). Third year

In the third year level, a student enrolling in a school of Education is 8.949 times more likely to be financial literate compared to a student enrolling in a school of Management Science. The P-value of 0.083 indicate that there is a statistically significant relationship between financial literacy and student enrolling for third year modules in the school of Education as compared to students enrolling same level in a school of Management Sciences. Our results indicate that a student enrolling in a school of Human and Social Sciences is 8.800 times more likely to be financial literate as compared to student in a school of Management Sciences. There is a statistically significant difference between a Human and Social Sciences student enrolling the third year

modules as compared to a Management Sciences student in the same level in terms of financial literacy given the P-value of 0.053 which is less than 10 percent significance level. However students enrolling in the schools of Agricultural Sciences, Law and Mathematics for third year modules are negatively related to being financially literate. Students enrolling in the schools of Health Sciences and Environmental Sciences are positively related with financially literate however, they are not statistically significantly related compared to students in school of Management Sciences.

For the fourth year regressions, none of the schools had a statistically significant difference with the school of Management Sciences, which means that the level of financial literacy from all schools compared to students in the school of Management Sciences was not different. The full regression tables for all levels of study are attached in the annexure 4-7.

The levels of study do not show any pattern to explain why there is a difference between students in the school of Law and Environmental Sciences as compared to students in the Management Sciences, however it shows that students in the schools of Education and Human and Social Sciences gradually grow in terms of financial literacy as they climb their educational career ladder from second year to third year level.

5.5. Impact of financial literacy on financial decisions

The following section is aimed at investigating if financial literacy has a role to play in the financial decision making of students. Each of the financial decision is treated as the dependent variables explained by the financial literacy, socio-economic and demographic variables. The results presented in tables 5.22 to 5.25 are based on equation 4.2 in chapter 4

5.5.1. Budgeting

The table 5.22 shows the results of the analysis of the effect of financial literacy on budgeting by University of Venda students. In the table budgeting is the dependent variable and all other socio economic variables as explanatory variable together with the financial literacy variable.

Table 5.22. Parameter Estimates of the logistic model of impact of financial literacy on financial decision making (Budgeting)

Variables		B	Sig.	Exp(B)
	AgeGroup (#17-22)		.044	
	AgeGroup(23_29)	-1.916**	.016	.147
	AgeGroup(30_35)	-1.620**	.042	.198
	Sex(1)	-.184	.427	.832
	Pocket(#ZAR100-1000)		.932	
	Pocket1(ZAR1001-1500)	-.127	.708	.880
	Pocket1(>ZAR1500)	-.093	.820	.912
	SCH (#Management)		.343	
	SCH(Agriculture)	-1.729**	.033	.178
	SCH(Education)	.196	.615	1.216
	SCH(Environmental_sci)	.205	.641	1.227
	SCH(Health_sci)	-.197	.680	.821
	SCH(HSS)	.266	.504	1.304
	SCH(Law)	.080	.871	1.084
	SCH(Mathematics)	.408	.346	1.504
	Student Nationality(1)	.554	.448	1.740
	Parental qualification (#Degree)		.696	
	Parental qualification(No_matric)	.211	.636	1.235
	Parental qualification(Matric)	-.009	.979	.991
	Parental qualification(Cert/Diploma)	-.281	.407	.755
	Parents occupation (#Pensionor)		.675	
	Parents occupation(Unemployed)	.319	.624	1.376
	Parents occupation(Selfemployed)	.425	.558	1.530
	Parents occupation(Employed)	.694	.315	2.001
	The level of study(#4th Year)		.105	
	The level of study(1st year)	.952**	.018	2.591
	The level of study(2nd year)	.801**	.037	2.228
	The level of study(3rd year)	.811**	.042	2.249
	Financil_lit	.793***	.001	2.211
	Constant	-.761	.527	.467

Source: research data.
*Significance levels 0.01***; 0.05** and 0.1**

#Base category

Financial literacy

A student who is classified as financially literate is 2.211 times more likely to draw a monthly budget before spending their allowance compared to students who are not financially literate. A significant value of 0.01 is an indication that there a statistically significant relationship between budgeting and being financial literate. The sign of the coefficient indicates a positive relationship between the financial literacy and budgeting. This finding is supported by the literature that states that the ability of individuals to manage their money by making medium and long term plans are the benefits of increased financial literacy level. Furthermore the literature outlined that some more benefits include the ability to budget, to differentiate financial products, to know where and how to get suitable information about financial products and services and to make use of financial products actively and efficiently (Reyes, 2006).

Level of study

The regression results show that a student enrolling in year 1 modules is 2.519 times more likely to draw a monthly budget before spending their monthly allowance compared to students in the year 4 level. A significance value of 0.018 indicate that there is a statistically significant relationship between budgeting and first year enrolment as compared to enrolling in a year 4 level. While being in a year 2 level means a student is 2.228 times more likely to draw a monthly budget as compared to a student enrolling in a year 4 level, there is a statistically significant relationship between budgeting and enrolling in year 2 as compared to enrolling fourth year level given a P-value of 0.037, which is less than 5 percent significance level. A student who is in the third year is 2.249 times more likely to have a budget compered to students in a fourth year level. Again this level of study has a significant relationship with budgeting at P-value of 0.042 which is below 5 percent significance level as compared to students enrolling in fourth year level. Students are able to budget at any level of study and there is a significance relationship between budgeting and the all levels of study as compared to fourth year level. This may be as result of students being more financially aware and know the implication of misusing money or learning from mistakes. From few mistakes that students make, they may become more vigilant with how they spend their money.

Age

The odds ratio shows that students between the ages of 23-29 are 0.147 times less likely to have a monthly budget compared to younger ones between 17-22 years of age. The P-value for the age 23-29 category is 0.016, which is less than 0.1 indicating a statistically significant relationship with drawing budget and this age group 23-29 compared to age group 17-22. A student between the ages of 30-35 has an odds ratio of 0.243 times less likely to be have a monthly budget compared to students between ages of 17- 23. The coefficient sign shows a negative relationship between this age group 30-35 and drawing a monthly budget. There is a significant relationship between budgeting and this age group 30-35 compared to students of age 17-22. The reason for such finding may be that, students between 17 and 22 are normally in their early university years and are not yet exposed to the life styles of tertiary students. As a result, they become more cautious on the financial spending and they are normally warned from home on how they should approach their financial management. Therefore this leads in having younger students with budgeting skills than the older students.

School

The regression results show that a student who is in the school of Agriculture is 0.178 times less likely to have a monthly budget drawn before they spend their monthly allowances compared to students who are in the school of Management Sciences. A significance value of 0.033 indicates that there is a statistical significant relationship between drawing a budget and enrolling in a school of Agriculture compared to enrolling in a school of Management Sciences. While enrolling in a school of Health Sciences means a student is 0.821 times less likely to draw a monthly budget compared to students in a school of Management Sciences, all other remaining schools have a positive coefficient, which means they have a positive relationship with drawing a monthly budget although there is no statistically significant difference between enrolling in any of those schools as compared to enrolling in a school of Management Sciences in terms of monthly budgeting.

The regression results indicate that variables like parent's occupation, parent's educational background, student's nationality, gender and pocket money are not statistically significantly related to drawing budget by students.

5.5.2. Savings

The table 5.23, shows the effect of financial literate on saving by students results. In the table we have used the saving as the dependent variable and all other socio economic variables as explanatory variable together with the financial literacy variable.

Financial literacy

The regression results indicate that a student who is financially literate is 1.963 times more likely to have savings. The P-value of 0.006 indicates that there is a statistically significance relationship between saving and being financially literate as compared to being financially illiterate. Financial literacy has a positive influence in savings by students given a positive coefficient. This finding supports the findings from Mahdzan and Tabiani (2013) that indicate that a high financial literate person is capable of preparing themselves for retirement through better savings and insurance plan. Lusardi and Mitchell (2007a), echoed the same sentiment when they found financial literacy to positively influence the level of saving (spending less than income).

Age

The odds ratio shows that a student who is in the age group of 23-29 is 5.056 times more likely to save as compared to students who are in the age group of 17-22 year old. There is a statistical significant relationship between saving and students who are in the age group of 23-29 year old with a P-value of 0.066 which is less than 10 percent significance level as compared to students who are in the age group of 17-22 year old. A positive coefficient for the age group 30-35 indicate that there is a positive relationship between saving and older age, although there is no statistically significant difference between age groups 17-22 and 30-31 with regard to savings by students given a significance value which is greater than 10 percent level. This finding contradicts other findings in the literature made by Mahdzan and Tabiani (2013**)** who indicated that when people grow old, they are expected to save more as they become concerned more about retirement period. However this contradiction is subjective, our targeted population is of younger aged people who are not any closer to retirement

Table 5.23. Parameter Estimates of the logistic model of impact of financial literacy on decision making (Savings decision)

Variables		B	Sig.	Exp(B)
Step 1[a]	AgeGroup (#17-22)		.162	
	AgeGroup(23-29)	1.621*	.066	5.056
	AgeGroup(30-35)	1.405	.113	4.077
	Pocket(#ZAR100-1000)		.430	
	Pocket1(ZAR1001-1500)	.332	.333	1.393
	Pocket1(>ZAR1500)	-.027	.947	.973
	SCH (#Management)		.000	
	SCH(Agriculture)	-1.682**	.038	.186
	SCH(Education)	.579	.129	1.784
	SCH(Environmental_sci)	-.182	.683	.834
	SCH(Health_sci)	.815*	.075	2.260
	SCH(HSS)	1.084***	.007	2.957
	SCH(Law)	-.405	.420	.667
	SCH(Mathematics)	-.556	.217	.573
	Student Nationality(1)	-.126	.853	.882
	Parental qualification (#Degree)		.970	
	Parental qualification(No_matic)	.157	.725	1.171
	Parental qualification(Matric)	.069	.847	1.071
	Parental qualification(Cert/Diploma)	.148	.660	1.159
	Parents occupation(#Pensionor)		.833	
	Parents occupation(Unemployed)	-.063	.921	.939
	Parents occupation(Self_employed)	.331	.642	1.392
	Parents occupation(Employed)	.035	.958	1.036
	The level of study (#4th_year)		.989	
	The level of study(1st year)	.053	.889	1.055
	The level of study(2nd year)	.036	.921	1.037
	The level of study(3rd year)	-.057	.881	.945
	Financial_lit	.674***	.006	1.963
	Sex(1)	.335	.150	1.398
	Constant	-2.696	.034	.067

Source: research data.

*Significance levels 0.01***, 0.05** and 0.1**

#Base category

School

When it comes to schools, a student who is in the school of Agriculture is 0.186 times less likely to save part of their monthly allowance compared to students who are in the school of Management Sciences. There is a statistically significant relationship between savings and being in a school of Agriculture with a P-value 0.038 as compared to students enrolling in a school of Management Sciences. While enrolling in a school of Health Sciences means a student is 2.957 times more likely to save compared to students enrolling in a school of Management Sciences, the P-value of 0.075 indicates that there is a statistically significant difference between enrolling in a school of Health Sciences and school of Management Sciences with regard to savings by student.

Furthermore the results indicate that enrolling in the school of Human Sciences means a student is 2.957 times more likely to save compared to students enrolling in the school of Management Sciences. There is a statistically significant difference between enrolling in a school of Human and Social Sciences and school of Management Sciences with regard to savings given a P value of 0.007 which is less than 1 percent significance level. Although there is a positive relationship between savings and enrolling in a school of Education, there is however no statistically difference between this school and all other remaining schools compared to enrolling in school of Management Sciences with regard to savings. School of Law, Environmental Sciences and Mathematics have a negative relationship with savings given negative coefficients. The reasons why students in school of Agriculture are significantly related to saving compared to students in school of Management Sciences is because, on average, their pocket money is greater than for students in Management Sciences. While students in schools of Health Sciences and Human and Social Sciences are likely to save because on average their students age is higher than for students in the school of Management Sciences.

The results indicate that student's pocket money, parent education background, parent occupation, nationality, gender and level of study variables do not have a statistically significant relationship with savings by students.

5.5.3. Borrowings

The table 5.24, shows the effect of financial literacy on borrowing by student's results. In the table we have used the borrowing as the dependent variable and all other socio economic variables as explanatory variable together with the financial literacy variable.

Financial literacy

The regression results indicate that a student who is financially literate is 0.978 times less likely to borrow money as compared to a student who is not financially literate. A P-value of 0.929 indicate that there is no statistically significant relationship between borrowing money and being financially literate as compared to being not financially literate. The coefficient sign shows that there is a negative relationship between borrowing and financial literacy. This means students who are financial literate are less likely to borrow money for supplementing their expenditure.

Parent occupation

Only students whose parents are unemployed are 0.335 times less likely to borrow compared to students whose parents are pensioners. There is a statistically significant relationship between students whose parents are unemployed and borrowing as compared to students whose parents are pensioners with a P-value of 0.092 which is less than a 10 percent significance level. This was expected as students whose parents are unemployed are likely to receive less pocket money that may not even cover costs for all essential products i.e. toiletries. Furthermore students whose parents are self-employed and employed are not statistically significantly different compared to students whose parents are pensioners with regard to borrowing. However there is a negative relationship between borrowing and students parent occupation categories compared to students whose parents are pensioners.

Table 5.24. Parameter Estimates of the logistic model of impact of financial literacy on decision making (Borrowing decision)

Variables		B	Sig.	Exp(B)
Step 1[a]	AgeGroup(#17-22)		.680	
	AgeGroup(23_29)	.577	.462	1.780
	AgeGroup(30-35)	.676	.391	1.966
	Pocket(#ZAR100-1000)		.537	
	Pocket1(ZAR1001-1500)	.330	.336	1.391
	Pocket1(>RAZ1500))	.421	.299	1.523
	SCH (#Management)		.001	
	SCH(Agriculture)	-.704	.220	.495
	SCH(Education)	-.143	.711	.867
	SCH(Environmental_sci)	-1.158**	.012	.314
	SCH(Health_sci)	.452	.344	1.572
	SCH(HSS)	-.712*	.074	.491
	SCH(Law)	-1.365**	.010	.255
	SCH(Mathematics)	-1.398***	.003	.247
	Student Nationality(1)	-1.266	.125	.282
	Parental qualification(#Degree)		.608	
	Parental qualification(No_matric)	-.236	.599	.790
	Parental qualification(Matric)	-.431	.226	.650
	Parental qualification(Cert/diploma)	-.020	.951	.980
	Parents occupation (#Pensioner)		.297	
	Parents occupation(Unemployed)	-1.093*	.092	.335
	Parents occupation(Self_employed)	-.517	.473	.597
	Parents occupation(Employed)	-.780	.253	.458
	The level of study (#4th_year)		.094	
	The level of study(1st_year)	.553	.156	1.739
	The level of study(2nd_year)	.250	.499	1.284
	The level of study(3rd_year)	-.318	.416	.728
	Financial_lit	-.022	.929	.978
	Sex(1)	.096	.680	1.101
	Constant	1.492	.235	4.447

Source: research data.

*Significance levels 0.01***, 0.05** and 0.1**

#Base category

School

The regression results indicate that a student in the school of Environmental Sciences is 0.314 times less likely to borrow compared to students in a school of Management Sciences. However there is a statistically significant relationship between borrowing and enrolling in a school of Environmental Sciences as compared to enrolling in a school of Management Sciences given a P-value of 0.012 which is less than 5 percent significance level. A student who is enrolling in the school of Human and Social Sciences is 0.491 times less likely to borrow compared to students enrolling in a school of Management Sciences, and the P-value of 0.074 indicate that there is a statistically difference between students enrolling in the school of Human and Social Sciences as compared to students enrolling in a school of Management Sciences in terms of borrowing. Students who are enrolling in the school of Law are 0.255 times less likely to borrow compared to students in the school of Management Sciences. Our P-value of 0.010 shows that there is a statistically significant relationship between borrowing and enrolling in the school of Law as compared to students in the school of Management Sciences.

Furthermore students in a school of Mathematics are 0.247 times less likely to borrow money for expenditure compared to students in a school of Management sciences, although there is a statistically significant relationship between borrowing and students who are enrolling in a school of Mathematics compared to students in a school of Management Sciences with regard to borrowing given a P-value of 0.003 which is less than 5 percent significance level. Students in the schools of Agriculture, Education and Health Sciences are not statistically different compared to students enrolling in a school of Management Sciences given significant values which are greater than 5 percent significance level. Only a student enrolling in a school of Health Sciences is positively related to borrowing compared to student in school of Management Sciences. Students in a school of Environmental Sciences are significantly related to borrowing because on average their socio-economic status (parent occupation and parent qualification) is less than for students in School of Management Sciences. For students in the school of Human Social Science, on average their pocket money is less than for students in the school of Management Sciences, again their socio-economic status on average is less than for students in the school of Management Sciences. Students in a school of Mathematics are significantly related to borrowing because on average, their age and socio-economic status are less than for students in the school of Management sciences

while school of Law students suffer the same trap because of the low level of socio-economic status on average compared to students in school of Management Sciences

Regression results indicate that student's age, gender, pocket money, parents qualification, level of study and gender are not statistically significantly related to borrowing by students.

5.5.4. Investment

The table 5.25, shows the effect of financial literate on investing by student's results. In the table we have used the investing as the dependent variable and all other socio economic variables as explanatory variable together with the financial literacy variable.

Pocket Money

The results are indicating that a student who receive a monthly pocket money between R1001 and 1500 is 2.973 times more likely to invest compared to students who receive less than R1000. There is a statistically significant relationship between investments and students who receive and amount between R1001 and R1500 as compared to students who receive less than R1000 per month given a P-value of 0.005 which is less than a 1 percent significance level. Furthermore a student who receives more than R1500 per month is 2.417 times more likely to invest compared to students who receive less than R1000 per month. Again there is a statistically significant difference between a student who receives above R1500 and a student who receives less than R1000 with regard to investment given a significance value of 0.051 which is less than 10 percent significant level. The significance relationship between these categories in pocket money and investment may be because these students develop interest in knowing and getting into more financial products, this may generate an interest to invest since they are having enough money.

Table 5.25. Parameter Estimates of the logistic model of impact of financial literacy on decision making (Investing decision)

Variables		B	Sig.	Exp(B)
Step 1[a]	AgeGroup (#17-22)		.763	
	AgeGroup(23-29)	-.707	.479	.493
	AgeGroup(30-35)	-.600	.551	.549
	Pocket(#ZAR100-1000)		.017	
	Pocket1(ZAR1001-1500))	1.090***	.005	2.973
	Pocket1(>ZAR1500)	.883**	.051	2.417
	SCH(#Management)		.381	
	SCH(Agriculture)	-.342	.595	.710
	SCH(Education)	.774	.102	2.169
	SCH(Environmental_sci)	.588	.293	1.801
	SCH(Health_sci)	.683	.253	1.980
	SCH(HSS)	.686	.174	1.985
	SCH(Law)	-.060	.920	.942
	SCH(Mathematics)	.893	.140	2.442
	Student Nationality(1)	-20.403	.999	.000
	Parental qualification(#Degree)		.219	
	Parental qualification(No_matric)	.778	.196	2.178
	Parental qualification(Matric)	.818*	.089	2.265
	Parental qualification(Cert/diploma)	-.041	.918	.960
	Parents occupation (#Pensioner)		.187	
	Parents occupation(Unemployed)	1.021	.173	2.776
	Parents occupation(Self_employed)	.639	.436	1.895
	Parents occupation(Employed)	1.373*	.084	3.947
	The level of study (#4th year)		.995	
	The level of study(1st year)	.014	.978	1.014
	The level of study(2nd year)	-.008	.987	.992
	The level of study(3rd year)	-.094	.846	.911
	Financial_lit	1.151***	.000	3.162
	Sex(1)	-.124	.673	.883
	Constant	19.350	.999	253206974.400

Source: research data
*Significance levels 0.01***; 0.05** and 0.1**

#Base category

Financial literacy

Being financially literate means a student is 3.162 times more likely to have an investment as compared to a financially illiterate student. A P-value of 0.000 indicate that there is a statistically significant difference between a students who are financially literate as compared to a student who is not financially literate in terms of investing. This type of finding was expected and it is supported by a literature from Mahdzan and Tabiani, (2013) which displayed that a better financial decision, that is, investing can be promoted by an increasing financial literacy level and thus, allowing better planning and management of life events such as education, housing purchase, or retirement.

Parental education background

Only a student whose parents have a certificate/diploma as their educational background has a negative relationship with investing as compared to students whose parents hold degree/s, although there is no statistically significance differences between students whose parents are holding certificate/diplomas as compared to students whose parents hold degrees. Furthermore students whose parents have matric as their highest qualification are 2.265 time more likely to invest compared to students whose parents are degree/s holders. The P-value of 0.089 indicate a statistically significant difference between a students whose parents have matric as compared to students whose parents are degree/s holders in terms of investment. There is no statistically significant difference between students whose parents are not having matric as compared to students whose parents are degree/s holders in terms of investments.

Parental occupation

Only students whose parents are employed are 3.947 times more likely to have investments compared to students whose parents are pensioners. There is a statistically significant relationship between students whose parents are employed and investment compared to students whose parents are pensioners. Furthermore there is no statistically significant difference between students whose parents are pensioners and those other categories given their significance levels which are greater than 5 percent. A statistical significant relationship between students whose parents are employed and investment may be that, those parents encourage their children to get involved in the financial products such as investments at an early age.

The results indicate that there is no statistically significance difference between students enrolling in a school Management Sciences compared to students in all other schools. However there is a negative relationship between investments and students who enroll in the schools of Agriculture and Law given the negative coefficients as compared to students enrolling in a school of Management Sciences. Students enrolling in these other remaining schools are having positive coefficients which means there is a positive relationship between investing and enrolling in those schools.

The level of study, gender, nationality and age do not have a statistically significant relationship with investment by students, their significant values are greater than 5 percent.

Conclusion

This chapter finds that from the sampled population, only 53.7 percent of students are financially literate compared to 46.3 percent of students who are not financially literate. The results also show that from the sampled population, female students are more financially literate compared to male students. We further discover that being in a school of Environmental Sciences and school of Law is statistically significantly related to being financially literate. From socio-economic and demographic variables only age and parent educational background have a significant relationship with being financial literate. When analyzing the level of financial literacy per level of study on schools, the study finds that there are different patterns. However, none of the schools have a significant relationship with financial literacy in level four of study. Being financially literate has a significant relationship with a good financial decision making by students. With budgeting, investing and saving statistically significantly related with being financial literate, however with exception of borrowing decision.

Chapter Six: Conclusion and Recommendation

This chapter provides the conclusion on the findings of the study. This will include the brief key findings of the study. The chapter also outlines the main contribution of this study into the society and country as a whole. Furthermore this chapter will give a policy recommendation for the problem we are confronted with, which is the low financial literacy level in our country.

6.1. Summary of findings

The study finds that the level of financial literacy at the University of Venda is slightly higher. The results indicated that approximately half of the students at the University of Venda are not financially literate. This finding shows an important need for the South African society to be financially educated. To improve this low level of financial literacy and to put South Africa in an improved financial literacy path, there is need to emphasize on having more financial education programmes.

As expected, the socio-economic and demographic variables have shown that they have an influence in the financial literacy level of students. Students with high socio-economic status scored better compared to students which a low socio-economic status.

On the demographic analysis, there are less female than male students in our study. However, female students are more financially literate compared to male students. With such finding the study can conclude that female University of Venda students are more financially literate compared to male students. A further finding was that as students become adults, their level of financial literacy level also increases.

On the determinants of financial literacy on students, the study has shown that only age and parent's qualification have a statistically significant relationship with being financially literate. This explains the influence of the socio-economic and demographic factors on the financial literacy level of students. Looking at school's effect, the study also discovered that students who enroll in the school of Law and Environmental Sciences are statistically and significantly related to being financially literate as compared to being in a school of Management Sciences. Furthermore an

attempt to discover the cause of this statistical difference between schools of Law and Environmental Sciences and school of Management Sciences, the study finds that parental qualification background causes this difference. When assessing the level of financial literacy per level of study, the study found that only school of Education and Human and Social Sciences show a pattern of students who are more financial literate from second year to third year.

On the establishment of a relationship between financial literacy and financial decision making, the study finds that students who are financially literate are likely to budget and there is a statistically significant relationship between financial literacy and budgeting. This result was expected since students who are financially literate are aware of the importance of budgeting. As per Lusardi and Mitchell (2007a) sentiments, we have found that students who are financially literate are likely to save money after having their expenditure. There is a statistical significant relationship between saving and high financial literacy level.

On the borrowing decisions, students who are financially literate are less likely to borrow and there is no statistical significant relationship between borrowing and being financially literate. This result was as expected that students who know more about finance and risks involved in acquiring credits would be reluctant to borrow. This result proves that when a student is knowledgeable about finance issues, they are less likely to borrow money or have credit.

With investment decision, students who are financially literate are more likely to invest compared to students who are not financially literate. There is a statistically significant relationship between investing and financial literacy.

This result on the financial decision making by students was as expected from literature review; students who are financially literate are more likely to budget, save and invest. However, they are less likely to borrow, which is the case in the study and this could be because they are more knowledgeable about the financial implications of borrowing money and having debts.

6.2. Main Contribution of the Study

The study contributes by outlying the importance of financial education and financial literacy in South African society. Higher financial literacy levels equip people to be able to take good

financial decisions. South Africa is confronted with low levels of savings which could be as a result of a low level of financial literacy. High levels of financial literacy enables citizens to save more and invest more, which will decrease credit dependence of citizens. A great savings and investment enables the economy to be stable during financial shocks and minimizes the possibilities of recession. A good saving and investing habit from the citizens would improve the economic growth. A good economic growth attracts more investors that will subsequently create more jobs opportunities and economic development for our country.

6.3. Policy recommendation

The study recommends that there is a need for an improved education policy that allows an introduction of financial literacy subject from basic education to a higher education level. A need for financial education has been seen as a vital step into improving the level of financial literacy. Like Mathematics literacy, Financial Literacy should be made a compulsory subject to be taught at schools. A step of this nature would go a long way into ensuring a good financial decision capability that would improve the wellbeing of the societies and country as a whole. Financial institutions should be obliged to provide sound financial education to customers that is monitored by the FSB. Another important direction that can be taken is to subsidies the NGO's and Private organizations that are in need of funds to provide financial education programmes. We hope and believe that a study of this nature can be used for further research and public awareness about the level of financial literacy in South Africa.

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Annexure 1

Calculation for the sample size

ME = 5percent equivalent to 0.05, where ME is margin of error

Z = 1.96 (at the 95percent confidence of intervals)

P = 0.5, where P is the judgement of the correct value of students who are judged to be financially literate

1-P = 0.5

$$ME = Z\sqrt{P\left(\frac{1-P}{n}\right)}$$

$$0.05 = 1.96\sqrt{\frac{0.5(0.5)}{n}}$$

$$\left(\frac{0.05}{1.96}\right)^2 = \left[\sqrt{\frac{0.5(0.5)}{n}}\right]^2$$

$$0.0006507703 = \frac{0.25}{n}$$

$$0.0006507703\ n = 0.25$$

$$N = 384$$

Sampling size = 384 students

Reference

https://www.unc.edu/~rls/s151-2010/class23.pdf accessed on 09 November 2015

Annexure 2

Proportional calculations for faculty sampling size

Students

Faculty	Students statistics
Agriculture	**734**
Education	**3 163**
Environmental Sciences	**1 581**
Health Sciences	**1 295**
Human and Social Sciences	**2 745**
Law	**1 130**
Management Sciences	**2 362**
Mathematics andNatural Sciences	**1 765**
Total	**14 775**

Source: University IPQA

Calculations for sampling per faculty

Agriculture : 734/14775*384=18 students
Management sciences: 2362/14775*384= 61 students
Environmental: 1581/14775*384= 41 students
Health Sciences:1295 /14775*384=35 students
Education : 3163/14775*384= 82 students
Human and Social Sciences: 2745/14775*384= 71 students
Law: 1130/14775*384= 28 students
Mathematics :1765/14775*384= 45 students

Annexure 3

Proportional number of students to be interviewed

Faculty	Gender	Level 1	Level 2	Level 3	Level 4
Agriculture (18)	**Females**	**03**	**03**	**02**	**01**
	Males	**03**	**03**	**02**	**01**
Education (82)	**Females**	**11**	**10**	**07**	**19**
	Males	**10**	**09**	**01**	**15**
Environmental Sciences (41)	**Females**	**03**	**04**	**05**	**04**
	Males	**06**	**07**	**06**	**06**
Health Sciences (35)	**Females**	**05**	**05**	**07**	**07**
	Males	**02**	**02**	**04**	**03**
Human and Social Sciences (71)	**Females**	**10**	**18**	**10**	**01**
	Males	**09**	**15**	**08**	**01**
Law (28)	**Females**	**03**	**03**	**03**	**03**
	Males	**03**	**05**	**04**	**05**
Management Sciences (61)	**Females**	**10**	**15**	**08**	**01**
	Males	**09**	**13**	**06**	**01**
Mathematics and Natural Sciences (45)	**Females**	**08**	**08**	**05**	**-**
	Males	**10**	**09**	**05**	**-**

Formula to calculate the proportional students to be interviewed

Total number of students per gender on each level / total number of students registered for professional first degree per faculty * sampling size

Annexure 4

Parameter Estimates of the logistic model of determinants of financial literacy for the first year University of Venda students results.

Variables		B	Sig.	Exp(B)
	Sex(1)	.184	.716	1.202
	Student Nationality(1)	-.919	.445	.399
	Parental qualification #(Degree)		.656	
	Parental qualification(No_Matric)	-.738	.396	.478
	Parental qualification(Matric)	-.704	.334	.495
	Parentalqualification(Cert/Diploma)	.113	.875	1.120
	Parents occupation (#Pensionor)		.202	
	Parents occupation(Unemployed)	19.551	.999	309724543.300
	Parents occupation(Self_employed)	21.733	.999	2743718720.000
	Parents occupation(Employed)	19.990	.999	480101126.400
	AgeGroup (#17-22)		.278	
	AgeGroup(23-29)	-41.119	.999	.000
	AgeGroup(30-35)	-42.747	.999	.000
	Pocket (#ZAR100-R1000)		.296	
	Pocket1(ZAR1001-1500)	-.044	.958	.957
	Pocket1(>ZAR1500	1.218	.257	3.380
	SCH(#Management_Sci)		.314	
	SCH(Agriculture)	-1.550	.178	.212
	SCH(Education)	-.332	.670	.718
	SCH(Environmental_sci)	-1.136	.238	.321
	SCH(Health_Sci)	-2.586**	.040	.075
	SCH(HSS)	-1.356	.131	.258
	SCH(Law)	-2.729**	.050	.065
	SCH(Mathematics)	-1.083	.199	.338
	Constant	23.052	1.000	10263859010.000

Annexure 5

Parameter Estimates of the logistic model of determinants of financial literacy for the second year University of Venda students results.

Variables		B	Sig.	Exp(B)
	Sex(1)	-.235	.626	.791
	Student Nationality(1)	-20.680	.999	.000
	Parental qualification (#Degree)		.287	
	Parental qualification(No_Matric)	-1.447	.128	.235
	Parental qualification(Matric)	-.850	.223	.427
	Parental qualification(Cert/Diploma)	.301	.652	1.352
	Parents occupation (#Pensionor)		.291	
	Parents occupation(Unemployed)	-2.824*	.058	.059
	Parents occupation(Self_employed)	-2.870*	.099	.057
	Parents occupation(Employed)	-2.955*	.067	.052
	AgeGroup (#17-22)		.326	
	AgeGroup(23-29)	-19.119	.999	.000
	AgeGroup(30-35)	-18.236	.999	.000
	Pocket (#ZAR100-1000)		.450	
	Pocket1(ZAR1001-1500))	-.381	.552	.683
	Pocket1(>ZAR1500)	.508	.562	1.662
	SCH (#Management)		.331	
	SCH(Agriculture)	1.224	.275	3.401
	SCH(Education)	1.393*	.095	4.026
	SCH(Environmental_sci)	1.285	.146	3.616
	SCH(Health_sci)	.487	.650	1.627
	SCH(HSS)	1.478**	.039	4.382
	SCH(Law)	1.684*	.081	5.385
	SCH(Mathematics)	.220	.778	1.245
	Constant	42.479	.999	28066221 92000000 000.000

Annexure 6

Parameter Estimates of the logistic model of determinants of financial literacy for the third year University of Venda students results

Variables		B	Sig.	Exp(B)
	Sex(1)	1.559**	.031	4.753
	Student Nationality(1)	-.457	.851	.633
	Parental qualification (#Degree)		.016	
	Parental qualification(No_Matric)	1.552	.227	4.720
	Parental qualification(Matric)	.187	.833	1.205
	Parental qualification(Cert/Diploma)	3.026***	.005	20.612
	Parents occupation (#Pensionor)		.706	
	Parents occupation(Unemployed)	-1.359	.412	.257
	Parents occupation(Self_employed)	.445	.837	1.561
	Parents occupation(Employed)	-.500	.752	.607
	AgeGroup (#17-22)		.650	
	AgeGroup(23-29)	.877	.639	2.403
	AgeGroup(30-35)	1.322	.471	3.751
	Pocket (#ZAR100-1000)		.283	
	Pocket1(ZAR1001-1500)	-.678	.450	.508
	Pocket1(>R1500)	.700	.512	2.013
	SCH (#Management)		.103	
	SCH(Agriculture)	-1.115	.471	.328
	SCH(Education)	2.192*	.083	8.949
	SCH(Environmental_sci)	.974	.381	2.647
	SCH(Health_sci)	1.531	.165	4.624
	SCH(HSS)	2.175*	.053	8.800
	SCH(Law)	-1.910	.204	.148
	SCH(Mathematics)	-.539	.650	.583
	Constant	-2.026	.570	.132

Annexure 7

Parameter Estimates of the logistic model of determinants of financial literacy for the fourth year University of Venda students results

		B	Sig.	Exp(B)
	Sch (Managent Sciences)		.918	
	Schools(Agriculture)	20.672	.999	950015575.300
	Schools(Education)	-.562	.766	.570
	Schools(Environmental)	.190	.838	1.209
	Schools(Health Sciences)	-1.058	.337	.347
	Schools(HSS)	-.223	.843	.800
	Schools(Law)	21.057	.999	1395714883.000
	Sex(Male)	.406	.537	1.501
	Allowance (R100-1000)		.824	
	Allowance(R1001-1500)	.348	.714	1.416
	Allowance(>R1500)	.556	.534	1.744
	AgeGroup (17-22)		.402	
	AgeGroup(23-29)	2.750	.180	15.649
	AgeGroup(30-31)	.067	.918	1.069
	Parental qualification (Degree)		.220	
	Parental qualification(No Matric)	.194	.882	1.214
	Parental qualification(Matric)	-1.200	.287	.301
	Parental qualification(Cert/Diploma)	.911	.303	2.487
	Parents occupation (Pensioner)		.910	
	Parents occupation(Unemployed)	.734	.624	2.083
	Parents occupation(Self-employed)	1.118	.490	3.059
	Parents occupation(Employed)	1.189	.476	3.284
	Constant	-1.392	.525	.248

Annexure 8

QUESTIONNAIRE

Dear student

I invite you to kindly participate in my study***: Analyses of financial literacy amongst college students: a case study of the University of Venda.*** The study is aimed at all current registered students of the UNIVEN.

The purpose of the study is to measure financial literacy level and factors influencing financial behaviour. There are questions about identified financial variables, demographic, financial decision making and socio economic attributes. Please try to answer every question. If there is a question you do not feel comfortable answering, you may skip it.

I therefore ask you kindly to contribute to the success of this study by your participation. I assure you that your answers will only be used for scientific purposes in the framework of this study. In the description of results of this study no identification of individual persons will be possible. **YOUR INFORMATION WILL BE TREATED WITH STRICT CONFIDENTIALITY.**

By completing the questionnaire and submitting it means you have read this form and are consenting to take the survey under the conditions described above.

You may ask questions about this research by contacting me at ronewa.mudzanani@yahoo.com or phone call 076 187 1336

Thank you very much for your kind support.

Mr Mudzanani Ronewa

SECTION A: PERSONAL INFORMATION

A.1. Gender ? Female …… Male ……

A.2. Age? How old are you? ……..

A.3. Year of your study? 1st year ……. 2nd ……. 3rd …… 4th ……

A.4 which school/ faculty are you in? ……..…….

A.5 Are you an international student? Yes …… No ……

A.6 How much is your monthly pocket money? R……

B. FINANCIAL LITERACY

Choose only one answer for each of the questions.

B.1. Saving is:

a. Using all the money you receive

b. Spending more than you receive

c. The portion of income not spent on current expenditures

d. None of the above

B2. Budgeting is

a, An estimate of income and expenditure for a set period of time

b, Loaning money to a friend for their current use

c, Collecting the money from the ATM

d, None of the above.

B3. Investment is

a. Putting money in a bank for a longer period to accumulate interest
b. The purchase of goods that are not consumed today but are used in the future to create wealth.
c. To lend money to a friend so he pays with interest
d. None of the above.

B4. Borrowing is:

a. Having extra money to give to your friend for urgency usage
b. The temporary acquisition of money with the intent to repay the amount, usually greater value at a particular time in the future..
c. Having extra cash for your own use
d. None of the above.

B5. If you invest R1 000 today at a 4percent rate for a year, your balance in a year will be:

a. Less than the amount you invested with
b. Higher than the amount of money that you invested
c. The same as the amount of money that you invested
d. I do not know.

B6. Mulalo always writes down the grocery expenses he wants to buy when he goes shopping against his monthly allowance budget, in this case Mulalo has done?

a. Budgeting
b. Savings
c. Investment
d. Inflation

B7. Ndivhuwo receives R1 000 every month but she spends only R800 of the money and keeps the remainder, she has?

a. Saved her money
b. Inflated her money
c. Lost her money
d. None of the above.

B8. Ronewa borrowed R3 000 from the bank at an interest rate of 17percent annually, after two years he would pay?

a. The same amount of money he borrowed
b. More than the amount of money he borrowed
c. Less than the amount of money he borrowed
d. I don't know.

SECTION C. FINANCIAL DECISIONS

Some people tend to be very thrifty (saving money whenever they have the chance) while others are spending-oriented (buying whenever they can and even borrowing to consume more).

C1. Do you make a financial plan for every month's consumption? Yes…….. No ……

C2. Do you save part of your monthly allowance? Yes …….. No ……

C.3. If your answer to C2 is yes,

How often do you save? Never use the amount saved before next six months elapses

Every month	Once in 2-3 Months	Once in 4-6 Months	Once in 7-8 Months	Once in 9-12 months

C.4 Do you have any investment (i.e.Bonds, securities)? Yes ……. No …….

10. Do you borrow money from financial institutions, a friend or family members? Yes ……. No ……

C.5. Do you have a credit card (Including store purchasing cards, i.e Edgars account)? Yes …… No …….

Respond to the following questions on credit cards: (if you have no credit cards skip these questions, from C.6.a to C7)

C.6.a. How many credit cards do you have? ……

C.6.b. How much do you estimate you owe on all debts including credit cards, store purchasing cards and other debts? R……

C.7 How do you usually pay your monthly credit card bills?

I pay the minimum.	I pay between the minimum and full amount.	I pay credit bills in full.	My parents pay my credit card bill.

Annexure 9

Editing and Proof reading

77A Munnik Street
Louis Trichardt

23 February 2018,

The Department of Economics
University of Venda
Bag X5050
Thohoyandou,

Dear Sir/Madam,

Re: Editing of Mr Mudzanani's Dissertation

This is to confirm that I, Sibonokuhle Moyo, have edited and proofread Mr Mudzanani's dissertation titled *Analysis of Financial Literacy amongst University Students: A Case Study of the University of Venda.*

Thank you and kind regards,