FINANCIAL BEHAVIOUR OF NELSON MANDELA UNIVERSITY COMMERCE STUDENTS

BY

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DECLARATION

We, Siphosethu Jacobs and Kan Yann David Yao, hereby declare that the content of this treatise represent our own work and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another university or for another qualification, and that all the sources that were used or quoted in this treatise have been documented and acknowledged as complete references.

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EXECUTIVE SUMMARY

South Africans display poor financial behaviours. Almost half of the country's population had a negative credit record in 2010 and more than 11 million credit active South Africans were categorized as over-indebted in 2015. An important reason for this is the poor saving culture aggravated by the impulsive buying behaviour of South African consumers. These poor financial behaviours unfortunately expand to all consumer markets including university students. In fact, immersed in a society too often driven by materialism, many university students overspend money, run out of cash, overuse credit and leave no money behind for emergencies. The negative consequences of such behaviours are numerous, extending from bad financial and psychological health of the students to poor productivity and academic performances.

Despite these factors and despite the fact that South African students represent an important market segment there is a limited knowledge on the financial behavior of these students. It is however known that financial education may improve the financial behavior. The purpose of the study was therefore to investigate the financial behaviour of Nelson Mandela University bachelor of commerce students and to determine whether differences exist between students based on five demographic factors name ethnicity, gender, age, use of a budget and use of credit cards. The reasoning behind this is that commerce students are presumably exposed to a level of financial education as part of their studies. In addition, since the financial behaviour of an individual is shaped by many factors which all play roles that may vary in their effect, an examination of these factors was expected to provide a better and broader understanding the financial behaviour of the students.

To achieve the purpose of this study, a literature review was conducted on the concept of financial behaviour, on the relationship between financial education, financial literacy and financial behaviour and on the relationship between financial behaviour and the five identified demographic factors. This was followed by an empirical investigation to establish whether differences exist in the financial behaviour of the students based on the demographic factors. In the present study, a positivistic paradigm was adopted in conjunction with a quantitative research methodology. A quantitative research approach was adopted as necessitated by the purpose of this study and close-ended questions were used in order to make it easier to collect a vast amount of data from the respondents and to test the relationships highlighted by the theoretical framework. For the purpose of this study, convenience and snowball sampling were used to determine the sample. A total of 400 questionnaires were found to be suitable for the quantitative statistical analysis and thus an effective response rate of 80% was achieved. To analyse the empirical data, descriptive statistics were calculated, then chi-square statistics as well as Cramer's V statistics were performed to provide inferential statistics and establish whether differences exist in the financial behaviour of the students based on the demographic factors.

The results of the study show that there are differences in the financial behaviour of NMU commerce students based on their ethnicity, age and use of a budget. No differences were found for gender and use of credit cards. It was also found that none of the differences have a substantial practical significance and therefore they may only have small real effects on the way the students manage their finances. The findings also suggested that the students have difficulties following a budget and that Coloured students live well above their financial means, as demonstrated by a higher level of borrowing and small level of savings. Furthermore, the findings highlighted a particularly high level of borrowing from the younger students which may indicates a lack of financial education by the parents.

Against this background, it was recommended that programmes that emphasize the values of savings and teach how to save, efficiently use a budget and how to spend cautiously be introduced in universities. These programmes should have real practical value and information given to the students must be information that they will be able to apply in their everyday lives. It was also recommended that under the supervision of the government, financial institutions make it one of their responsibilities to teach consumers on how to improve their financial behaviour. Special advice can be given to bank accounts owners and basic information about savings and its importance can be given to anyone who is opening a bank account.

It is hoped that the findings of this study have added value to the relevant bodies of knowledge and can be used in future studies as a tool to address and improve the problem of poor financial behaviour in South Africa. Furthermore, it is hoped that recommendations made in this study will serve the Nelson Mandela University as well as other relevant institutions in empowering students and creating a better future for them.

KEY TERMS

Financial behaviour, financial education, borrowing behaviour, savings behaviour and use of disposable income, ethnicity, age, gender, use of a budget, use of credit cards.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION AND BACKGROUND

South Africans are the biggest borrowers in the world, with 86 percent having borrowed money formally or informally from 2013 to 2014 (World Bank, 2014). In addition, 75 percent of the monthly income of South African consumers is used to repay debt and more than 50 percent have difficulties meeting their home loans and credit card payments (BusinessTech, 2016). According to Ndumo (2011:1), almost half of the country's population had a negative credit record in 2010 and more than 11 million credit active South Africans were categorized as over-indebted in 2015 (BusinessTech, 2015). These numbers are indicative of the inability to properly manage one's finances. FinMark Trust (2011:21) argues that one of the reasons South Africans are so prone to debt is because of their poor saving habits. This is only aggravated by the impulsive buying behaviour of South African consumers (Fin24, 2017). A continuous cycle is thus created in which debt that is incurred reduces the future savings of consumers, which in turn increases their indebtedness further (Kotzè and Smit, 2008:38).

A group of people that is particularly affected by debt and that has received notable attention recently is university students (Sabri and MacDonald, 2010; Jariah, Husniya, Layli and Britt, 2004). The “fees must fall movement” that emerged as a protest to high education fees and as a cry for the alleviation of university costs is evidence of the struggle of South African students. In fact, faced with the high costs of tertiary education and due to lack of money many students have to take loans in order to afford the costs of their studies (Badenhorst, 2017). According to the National Student Financial Aid Scheme (NSFAS, 2017:iv) which is the government student bursary and loan scheme, R12.4 billion was disbursed to financially aid students in 2017 and more than 65 percent of that amount were loans. In addition, the increasing availability and accessibility to credit cards, store accounts and other personal loans also contributes to increase the level of debt of South African students (Prinsloo, 2002:63). This situation has raised the concern of the South

African authorities and has urged them to take actions. However, despite numerous measures taken by the government to mitigate the problem, many students still find themselves in debt (Pitt, 2018). The National Student Financial Aid Scheme (NSFAS, 2017:14) reported R28.7 billion debt that is still outstanding. This is indicative of the large student body that has entered or will soon enter the labour market with a high level of debt.

The financial behaviour of the South African youth is also being influenced by the rise of sugar daddies and mummies typically called “blessers” in South Africa (Jadezweni, 2017). According to Masenya (2017:121), a blesser is an older man or older woman that has sexual relationships with young girls or young boys in exchange for money and material goods. The “blesser culture” has led many students and younger in particular, into believing it is acceptable to acquire expensive items because they know more money will flow in their bank accounts as soon as they make contact with their blessers (Jadezweni, 2017). This further damages the already bad savings culture of these young people.

In a general sense, financial behaviour refers to how people manage their money (IGI Global, 2018). A distinction can be made between good and bad financial behaviours. Good financial behaviours include budgeting, saving and debt management (MicroFinance Opportunities 2005:3). These behaviours are shown to have a positive impact on the financial health of the individuals. Conversely, Garman *et al*. (1996:159) establish a list of poor financial behaviours that includes spending too much money, overusing credit and regularly being unable to pay debts. Hilgert and Hogarth (2003:910) argue that good financial behaviours are essential to people as they increase the level of financial security and well-being. This is particularly relevant for students whose futures are affected by the financial decisions they make in the present (Falahati, Paim, Ismail, Haron and Masud, 2011:6086). Negative financial behaviours on the contrary are shown to result in financial stress, reduced productivity, stress and stress-induced illnesses and can even lead to substance abuse (Garman *et al*., 1996; Callery, 1994).

Limited research has been done on the financial behaviour of university students in South Africa. However, Thobejane and Fatoki (2017:9416) report that the financial behaviour of South African students has worsened due to consumerism which promotes a spending and borrowing culture. This has negative effects on the students' finances as they lack the knowledge and skills necessary to manage their finances (Jariah *et al.*, 2004:94). Van Deventer and de Klerk (2016:706) further suggest that university students are unable to make effective financial decisions and considerably likely to incur high debt as a result of poor financial knowledge. Jariah *et al.* (2004:94) show that many students are involved in impulse spending. That is, they buy goods and services at the spur of the moment based on their emotions and feelings and without planning in advance. In addition, Sabri and MacDonald (2010:104) draw attention to certain financial problems faced by university students in Malaysia such as over indebtedness and difficulties in meeting one's financial obligations and found that students who display bad financial behaviours are more likely to experience such problems. Considering the above-mentioned factors, it is crucial for South African students to have the ability to make good financial decisions and to display better financial behaviours than the average South African consumer in order to secure a better future for themselves.

1.2 PROBLEM DEFINITION

Global spending and saving patterns have changed because of higher spending power and increased westernisation (Birari and Patil, 2014:158). In South Africa, this has had very negative effects on consumers who are living beyond their financial means and who do not make reasonable provisions for their future (Robert and Struwig, 2011:vi-ix). In fact, according to FinMark Trust (2011), 66 percent of South African consumers did not save in 2011. Furthermore, the World Bank (2014) reports that South Africans borrow more than anyone else does in the world. This is indicative of poor financial behaviours and can have negative effects on individual consumers and on society as a whole (MicroFinance Opportunities 2005:13-14). These poor financial behaviours unfortunately expand to all consumer markets including university students. In fact, immersed in a society too often driven by materialism, many university students display bad financial behaviour by overspending, running out of cash, overusing credit and leaving no money behind for emergencies. The negative consequences of such behaviours are numerous, extending from the financial and psychological health of the students to their productivity and academic performances. (Garman *et al.* 1996:159).

Many studies have investigated the relationship between financial education, financial literacy and financial behaviour. (Lusardi, Mitchell and Curto, 2010; Van Rooij, Lusardi, and Alessie, 2011; De Bassa Scheresberg, 2013). It is evident from these studies that financial education and consequently financial literacy can influence the way individuals manage their finances. In fact, financial education is the 'process' by which a person acquires a better financial understanding whereas financial literacy is a state of already acquired financial skills that can help an individual make better financial decisions. In other words, a person who receives a good financial education is more likely to become financially literate and consequently more likely to exhibit good financial behaviours and to achieve his financial goals .(Orton, 2007:5). Considering that commerce students receive exposure to financial education through classes of accounting, financial management, investment management, financial planning and others, it can be assumed that they would display a better financial behaviour than the average South African consumer. However, as Jariah *et al.* (2004:84) explain, the financial behaviour of an individual is shaped by many factors which all play roles that may vary in their effect. Having a better understanding of these factors and the effect they have on the students' financial behaviour will help providing recommendations on how to improve the financial behaviour of these students.

1.3 PURPOSE OF THE STUDY

The purpose of the study is to investigate the financial behaviour of Nelson Mandela University bachelor of commerce students and to determine whether differences exist between students based on demographic factors. In doing so, it is hoped that insights can be provided as to gain a better understanding of the way commerce students in Nelson Mandela University manage their finances and the factors that influence such financial behaviour.

1.4 RESEARCH OBJECTIVES

The primary and secondary research objectives of the study are as follows:

1.4.1 PRIMARY RESEARCH OBJECTIVES

The primary objective of this study is to investigate the financial behaviour of Nelson Mandela University commerce students.

1.4.2 SECONDARY RESEARCH OBJECTIVES

To give effect to the primary objectives of the study, the following secondary objectives have been identified:

(a) To conduct a literature review on financial behaviour, to examine the relationship between financial literacy, financial education and financial behaviour and finally, to determine the relationship between specific demographic variables and financial behaviour.

(b) To suggest appropriate hypotheses based on the literature review for empirical testing.

(c) To select an appropriate research methodology and research methods to give effect to the purpose of the study.

(d) To empirically test the measuring instrument by sourcing primary data from Nelson Mandela University commerce students.

(e) To provide pertinent conclusions and recommendations to role players in the tertiary education system as well government authorities on how to enhance financial education and improve financial behaviour based on the results of the of the study.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

The research questions and research hypotheses that this study aims to address are presented in the paragraphs below;

1.5.1 RESEARCH QUESTIONS

Given the purpose of this study, the following research questions are presented:

(a) What are the characteristics of the financial behaviour of Nelson Mandela University commerce students?

(b) What is the relationship between population group, gender, age, use of a budget, use of a credit card and the financial behaviour commerce students in Nelson Mandela University?

(c) What is the Nelson Mandela University commerce students' saving, borrowing and spending behaviour?

(d) How can a detailed research methodology be supplied in order to comprehend and replicate this study in the future?

1.5.2 RESEARCH HYPOTHESES

In the attempt to understand the dynamics of the financial behaviour of the Nelson Mandela University commerce students, five factors/variables were considered as being determinants of such financial behaviour namely ethnicity, use of a budget, gender, use of a credit card and age. The following hypotheses are formulated in this regard:

$H^{01:}$ There is no difference in the financial behaviour of commerce students based on their ethnicity.

$H^{a1:}$ There is a difference in the financial behaviour of commerce students based on their ethnicity.

$H^{02:}$ There is no difference in the financial behaviour of commerce students based on their use of a budget.

$H^{a2:}$ There is a difference in the financial behaviour of commerce students based on their use of a budget.

$H^{03:}$ There is no difference in the financial behaviour of commerce students based on their gender.

$H^{a3:}$ There is a difference in the financial behaviour of commerce students based on their gender.

$H^{04:}$ There is no difference in the financial behaviour of commerce students based on their use of credit cards.

$H^{a4:}$ There is a difference in the financial behaviour of commerce students based on their use of credit cards.

$H^{05:}$ There is no difference in the financial behaviour of commerce students based on their age.

$H^{a5:}$ There is a difference in the financial behaviour of commerce students based on their age.

1.6 RESEARCH DESIGN AND METHODOLOGY

The research design and methodology will be undertaken to achieve the primary and secondary objectives of this study addressed as secondary and primary research.

1.6.1 SECONDARY RESEARCH

In the light of the objectives of the study, a literature review will be conducted. Specific attention will be given to defining financial behaviour in the context of the study and to identifying the demographic factors that may influence the financial behaviour of Nelson Mandela University commerce students. Secondary research focuses on data or existing information that was collected by other researchers (Struwig and Stead, 2013:82). Various textbooks and journal articles, as well as databases such as Emerald, Sabinet, SAGE and EBSCO host will therefore be used to search for relevant literature relating to the topic under investigation. In addition, data searches using Google and Google Scholar will also be conducted to ensure the diversity of the data sourced.

1.6.2 PRIMARY RESEARCH

Primary research involves the collection of new data for a research project (Struwig and Stead, 2013:82). Primary data refers to original data that can be collected by means of a questionnaire and contains information not found in other sources (Winslow and Faan, 2009:13). For the purpose of this study the primary research will be collected from Nelson Mandela University commerce students. The primary research will comprise of the research design, a suitable research paradigm and methodology, choosing the research method to be used, data collection methods deemed most suitable for the study and analysing the data and lastly identifying the sample.

1.6.2.1 Research Design

Cresswell (2009:3) defines the research design as the action plan or strategy for conducting research and describing the actions needed to conduct research that will direct extensive assumptions of research to the detailed methods of data analysis and collection. The research design according to Burns sand Burns (2008:29) is a strategic framework for action that bridges the gap between research questions and the implementation of the research strategy. The research design therefore dictates the research paradigm and methodology that will be used.

1.6.2.2 Research paradigm and methodology

A paradigm can be described as the selection of mutually accepted modes of scientific practice (Struwig and Stead, 2013:267). The research direction is dictated by these modes along with the types of questions the researcher intends to answer (Struwig and Stead, 2013:267). According to Schwandt (2001:184), a paradigm is a world view that is shared and that represents a set of belief and values in a discipline as well as providing guidance to solve the problem.

The two main research paradigms are the positivistic paradigm and the interpretative paradigm. Burns and Burns (2008:12) state that the positivistic paradigm presumes that the nature in which one operates in is external and objective to the individual. The positivistic paradigm is particularly useful when working with big samples and is used to generalise behaviour (Taylor and Medina, 2013:2). According to Collis and Hussey (2009:56) the positivistic paradigm is established by assumptions that theory can explain and logical reasoning can be applied to guarantee accuracy and objectivity in the study.

Thomas (2010:296) argues that the interpretive paradigm consists of people’s subjective experiences of the external world and therefore they may assume an inter-subjective epistemology along with the ontological belief that reality is socially constructed. Thanh and Thanh (2015:24) state that it is theoretically known that the interpretive paradigm allows researchers to view the world through what participants perceive and have experienced. The interpretive research paradigm relates to the qualitative research methodology and the positivistic research paradigm relates to the quantitative research methodology.

Quantitative research according Creswell (2003:153) involves collecting data in order for information to be quantified and subjected to statistical treatment for the purpose of accepting or rejecting alternate knowledge claims. The approach for quantitative research is meant for testing theories, testing hypotheses, indicating relationships between variables, and predicting outcomes (Garber, 1996:280). Furthermore, quantitative research entails data collection that is numeric and the researcher will most likely use mathematical models as the methodology of data analysis (Williams, 2007:66).

Qualitative research is used to explore and understand the meaning individuals or groups assign to a social or human problem (Creswell, 2009:4). Denzin and Lincoln (2005:10) add that qualitative research is a located activity that discovers the observer in the world. Qualitative research makes use of in-depth analysis to understand what is being studied and collects data containing words, images and sounds (Struwig and Stead, 2013:269).

For the purpose of the study a positivistic research paradigm in conjunction with a quantitative research methodology will be employed.

1.6.2.3 Research methods

Williams (2007:65) states that research methods entail collecting, analysing and interpreting data so that a phenomenon can be understood. There are quantitative methods of data collection and analysis as well as qualitative methods of data collection and analysis. Quantitative research methods involve the use of questionnaires, interviews, surveys and experiments to collect data that is studied and tabulated in numbers, which allows the data to be assessed by the use of statistical analysis (Hittleman and Simon, 1997:31) Qualitative research methods include observation, visual methods, focus group interviews and open-ended interviews (Struwig and Stead, 2013:64) Qualitative data analysis methods include data tabulation and data coding (Struwig and Stead, 2013:180). For the purpose of this study, a quantitative research method will be employed and the gathering of data from respondents will be done using questionnaires.

1.6.2.4 Data collection

Questionnaires are a popular method for quantitative data collection. Questionnaires can be administered in a number of ways namely personal surveys, telephone interviews and self-completion questionnaire (Meadows, 2003:563). According to Gray (2009:157), questionnaires have various advantages such as low cost in terms of financial resources, data is collected quickly from respondents and gives them the flexibility of completing the questionnaire at a place and time they comfortable with. Struwig and Stead (2013:89) state that for the purpose of quantitative data collection, either structured interviews or semi-structured interviews can be used. Interviews can also be used for qualitative research. Conversely, open-ended, structured, and semi-structured interviews can be used for the purpose of qualitative data collection (Struwig and Stead, 2013:103). Maree (2016:93) describes open-ended interviews as unstructured interviews that do not use pre-determined questions. Structured interviews contain a set of question developed in advance and all participants are asked the same order of questions by the same interviewer (Maree, 2016:93).Finally, semi-structured interviews are a combination of structured and unstructured interviews in the sense that the interviewer initially sets a list of questions but does not does strictly follow it (Struwig and Stead, 2013:90).

1.6.2.5 Sampling methods, population and sample

This section discusses the various sampling methods that are available and the one that will be used in the study. Then, the population and the sample of the study are identified.

(a) Sampling methods

The different sampling methods are divided into two major classes namely non-probability sampling and probability sampling (Maree, 2016:192). Non-probability sampling according to Lunsford and Lunsford (1995:105) is a sampling method that does not give all the members in the population an equal chance of being selected. There are four types of non-probability sampling namely convenience sampling, quota sampling, snowball sampling and purposive sampling (Maree, 2016:197-198). Convenience sampling involves respondents who are readily available and willing to participate in a study (Frey, Botan and Kreps, 2000:131). Quota sampling is a method used to ensure that there is an equal representation of respondents in each layer of stratified sample grouping (Lunsford and Lunsford, 1995:110). According to Lohr (2010:517) snowball sampling occurs when respondents are asked to identify other respondents for the sample, this continues until the desired sample size is achieved. Purposive sampling also known as judgemental sampling is when respondents are handpicked because for their expertise and knowledge in a particular field (Lunsford and Lunsford, 1995:110).

Probability sampling according to Lohr (2010:60) is a method of sampling where every subset of the population has a known probability of being included in the sample. Latham (2007) adds that probability sampling consists of four types sampling techniques namely random sampling, systematic sampling, stratified random sampling, and cluster sampling. According to McNealy (1999:155), a random sample is selected by assigning a number to each of the members on the population list then the numbers are randomly selected to determine the same. All the members of the population that are assigned a number have an equal probability of being chosen (McNealy, 1999:155). In systematic sampling, a starting point is randomly chosen from a list of population members. Thereafter, the k^{th} unit after the starting point is chosen to be in the sample (Lohr, 2010:25). According to Maree (2016:195), stratified sampling occurs when the population is divided into a number of homogenous, non-overlapping subgroup called strata. Lunsford and Lunsford (1995:109) describes strata as natural groups that are mutually exclusive and the groups could be things such as age, gender or even provinces. Cluster sampling is a method whereby every member of the study population is allocated to a cluster, then clusters are selected at random and each of the members of a particular cluster are included in the sample (Latham, 2007). For the purpose of this study, convenience and snowball sampling will be used to determine the sample. This is due to time and resource constraints as convenience sampling is convenient, quick and low-cost (Struwig and Stead, 2013:120).

(b) Population

McMillan and Schumacher (2010:129) describe a population as a group of cases, elements, or individuals that adapt to a specified criteria and to which researchers aim to generalise the findings of the study. The population of this study is focused on the commerce students of Nelson Mandela University.

(c) Sample

Frey *et al.* (2000:125) state that a sample is a subdivision of a population. Each sampled unit should represent and signify the characteristics of a known number of units in the population (Lohr, 2010:3). The sample for the study is defined as commerce students who are registered at the Nelson Mandela University during the 2018 academic year.

1.6.2.6 Data analysis

For the purpose of this study, the data received from the questionnaires will be captured in Microsoft Excel. The questionnaire will be divided into two sections: namely section A and B. Section A will contain information requesting demographic and general information of the sample. Respondents will be required to provide details on their population group, gender, source of income, age, whether they have a credit card, make use of a student loan to fund their studies, have child dependents and finally, whether they follow a budget.

In section B, respondents will be required to indicate whether they use debt, credit or disposable income to purchase or participate in certain financial activities using a nominal scale. For the purpose of the study chi-square statistics will be used to assess statistical significance. According to Struwig and Stead (2013:174), Chi-square test of independence is used comparisons are made between observed frequencies and expected frequencies. Gravetter and Wallnau (2011:535) state that Chi-square tests for independence are used when a study has a null hypothesis. Hair, Babin, Money and Samouel (2003:263) consider 0.05 as an acceptable level of statistical significance for calculating Chi-square statistics. In the study, Craemer's V statistic will be used to establish practical significance. Craemer's V statistic serves as a good indicator of the strength of the relationship between the variables, however it does not indicate the direction of the relationship between those variables (Bryman and Bell 2011:350).

(a) Reliability and validity

Hair *et al.* (2003:170) explain that reliability is the importance of certifying the measuring instrument is error free and the research findings it produces are consistent and accurate. Inter-rater reliability will be employed to test reliability. According to Burns (2004:57), inter-rater reliability refers to the degree of agreement obtained by different raters using the same instrument, scale or procedure. Inter-rater reliability can be determined using a number statistics.

Maree (2016:239) defines validity as the degree of which an instrument measures what it is supposed to measure. Face and content validity will be used to assess the validity of the study. Face validity is concerned with whether the instrument measures what it is intended to measure (Maree, 2016:240). Content validity is the degree to which the instrument covers the theoretical content domain of the construct being measured (Struwig and Stead, 2013:146).

1.7 SCOPE AND DEMARCATION OF THE STUDY

This study focuses on Bachelor of Commerce students in the Business and Economic Sciences faculty of the Nelson Mandela University. The students were selected because as commerce students, they are presumably exposed to a level of financial education as part of their studies. Previous studies have already shown that there is a relationship between financial education, financial literacy and financial behaviour (Lusardi, Mitchell and Curto, 2010; Van Rooij, Lusardi, and Alessie, 2011; De Bassa Scheresberg, 2013). Therefore, although the study looks at how commerce students manage their finances, it does not primarily intend on reinforcing the theory on the relationship between the students' financial education and their financial behaviour. The study rather focuses on other factors that may have been overlooked yet may also play a significant role in determining how students manage their finances. In this regard, five factors will be considered, namely, ethnicity, gender, age, use of budget and use of a credit card.

1.8 SIGNIFICANCE OF THE STUDY

Louw, Fouché and Oberholzer (2013) emphasize on the limited knowledge that is available on the financial behavior of South African students. However, there is a need to understand the financial behaviour of these students. They represent an important market segment and are likely to have greater purchasing power when they graduate (Jariah *et al.*, 2004; Sabri and MacDonald, 2010). As a result, they will also be exposed to an increasingly complex financial market that requires consumers to have information and the ability to choose the services that meet their needs (Jariah *et al.*, 2004:94). It is therefore important for these students to display good financial behaviour and to have a good understanding of how to manage their finances. Thus, the study intends on enlarging the limited understanding of the financial behaviour of university students and assessing the factors that influence this behaviour. By introducing more factors into the model, it is hoped to provide a broader and more inclusive understanding of the financial behaviour of the students. Insights from the study will enable relevant institutions to develop more effective educational programs to provide students with the appropriate skills and knowledge to improve their financial behaviour and the quality of their lives in the future.

1.9 STRUCTURE OF THE RESEARCH

Chapter 1 is the introductory chapter of this study and provides an introduction and background to the topic under investigation. The introduction and background is followed by the problem statement, the purpose of the study and the research objectives of the study. The research questions and research hypotheses that the study aims to address are also presented in Chapter 1. The secondary and primary research methods are described and the scope and demarcation of the study outlined. The chapter concludes by highlighting the significance of the study.

In **Chapter 2**, the nature and importance of good financial behaviours will be discussed. Each component of financial behaviour as defined in this study will also be discussed. In addition, the relationship between financial education financial literacy and financial behaviour will be described in order to establish the link between these concepts. Finally, the factors or variables identified as determinant of financial behaviour will be highlighted and discussed.

Chapter 3 is a comprehensive chapter that explains and motivates the research design by elaborating on the research paradigm and research methodologies that are selected for the study. The several research and sampling methods will be described. Furthermore, methods used to analyse the data and assess the reliability and validity of the measuring instrument will be identified.

Chapter 4 will present the results of the data analysed. This also includes determining the reliability and validity of the questionnaire. To establish whether differences exist between the different factors, Chi-square statistics will be calculated and will assess the statistical significance together with Cramer's V statistics which will establish the practical significance of the results. Face and content validity as well as inter-rater reliability will be used to assess the validity and reliability of the study.

Chapter 5 is the concluding chapter and provides a summary of the contents in the previous chapters of the study. Conclusions and recommendations will be drawn from the literature review and empirical section. The contributions and limitations of the study will be addressed and discussed and the chapter will be closed by providing recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

As indicated in Chapter One, the purpose of this study is to investigate the financial behaviour of Nelson Mandela University bachelor of commerce students and to determine whether differences exist between these students based on certain demographic factors. Chapter One also describes the South African socio-economic landscape and highlights the importance of proper financial behaviour for South Africans and particularly for university students However, financial behaviour being a broad concept, it is important to establish the contextual ground upon which this concept will be discussed in order to achieve the objectives of the study.

The following sections therefore provide an in-depth literature review on the concept of financial behaviour and the relationship between financial literacy, financial education and financial behaviour. Furthermore, possible determining factors of the financial behaviour of students will be elaborated on namely ethnicity, age, gender, use of a budget and use of a credit card.

2.2 FINANCIAL BEHAVIOUR

The implications of making poor financial decisions can negatively affect individuals and the community as a whole. According to Makwakwa (2013:10), people make financial decisions based on emotions such as pride, joy and anger. Botha, du Preez, Goodall, Palframan and Rossini (2012:2) also suggest that many people are not fully conscious of the impact of their financial decisions on other areas of their lives. As a result, they overspend, do not save enough for retirement and buy lavish things that they later regret (Stromback, Linda, Skagerlund, Vastfjall and Tinghog, 2017:30). Governments and relevant institutions therefore increasingly encourage individuals to take personal responsibility in their financial affairs (Dolan, Elliot, Metlife and Vlaev, 2012:126). In order to make better financial decisions, a better understanding of good financial behaviour is necessary.

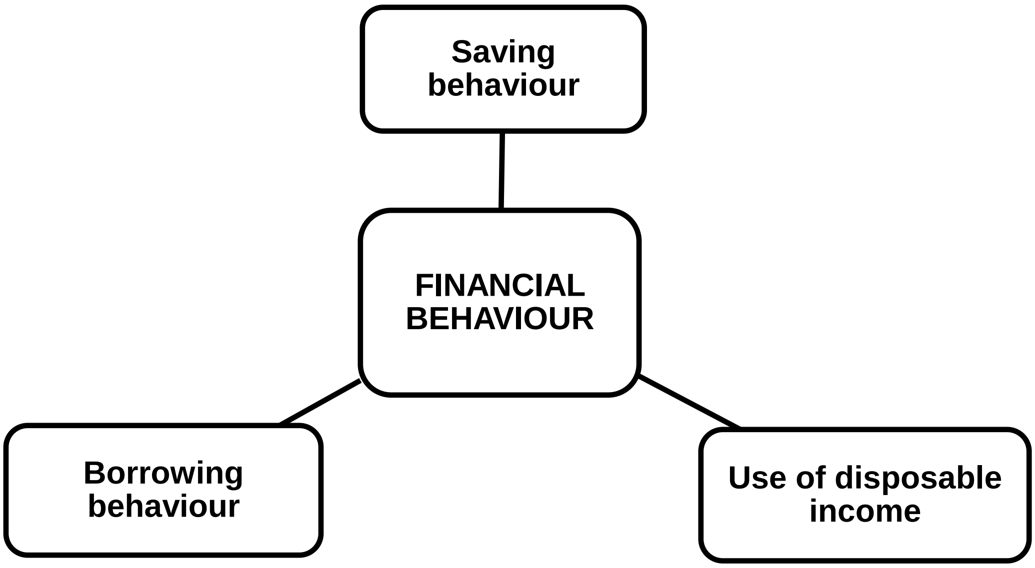
Financial behaviour describes the behaviour of humans that is applicable to the management of money (IGI Global, 2018). In other words, financial behaviour refers to the decisions and actions of an individual with regard to their finances (Klontz, Britt and Mentzer, 2012:2). According to Angulo-Ruiz and Pergelova (2015:551), financial decisions are affected by many factors such as personality, self-control, values, education and social surroundings namely the influence of parents, family, friends and the community as a whole (Strömbäck *et al.,* 2017; Baddeley, 2010; Swart, 2007). These factors influence the financial decisions individuals make and have an impact on how people ultimately spend their money. For example, an individual that is more short-term oriented is more likely to opt for the instant gratification he or she might receive from spending money now than to save for future enjoyment (Lewis and Messy, 2012:15). In addition, Tang and Baker (2015:165) argue that self-esteem which is one of the main components of an individual's self-perception, is related to a wide range of individual behaviours including their financial behaviour.

Financial behaviour is associated with a number of financial management activities and practices which can either be classified as good or bad. Good financial behaviour includes account ownership, use of a budget, asset accumulation as well as good credit and cash flow management (Hogarth, Beverly and Hilgert, 2003:2). It also includes a person's approach to managing debt and to saving (MicroFinance Opportunities 2005:3). Bad financial behaviour on the other hand includes practices such as regularly spending too much money in relation to the individual's income, regularly overusing credit, regularly having low or non-existent emergency fund savings, regularly feeling emotionally stressed about financial matters or being unable to pay due bills (Garman *et al.*, 1996:159). Considering that there is a large number of activities that can be associated with financial behaviour, it is important to conceptualise financial behaviour in order to make more accurate inferences.

Therefore, for the purpose of this study, financial behaviour refers to activities associated with saving behaviour, borrowing behaviour and use of disposable income. Figure 2.1 depicts the concept of financial behaviour in the context of this study, along with each of the components it comprises.

FIGURE 2.1

COMPONENTS OF FINANCIAL BEHAVIOUR



Source: Researchers' own construction.

The following section is a detailed discussion on each of the components of financial behaviour according to the above-mentioned definition.

2.2.1 SAVING BEHAVIOUR

People often understand saving as investing and putting money away in a bank (Warneryd, 1999). However, Strydom (2007) defines savings as the income that is not spent during a particular period and whose consumption is postponed to an upcoming date. In this definition, it is important to note that money saved is not intended to be consumed for a certain period. Warneryd (1999) gives a similar interpretation stating that saving is the practice of deliberately not consuming money for a specific period in order to use it in the future. For the purpose of this study, it can be concluded that saving entails putting money away in order for it to be used in the future. This definition relies on the assumption that such money can be kept either in a bank or anywhere else, as long as it is intended to only be used at a later stage.

The current financial situation in South Africa is increasingly pressurizing people to save more for the future. James (2012:33) states that saving is essential for a number of reasons namely to serve as protection against emergencies such as unexpected retrenchment, medical bills, accidental occurrences and for financial independence during retirement. People have various motivations for saving. According to De Vaney, Anong and Whirl (2007:175) saving behaviour is often motivated by the need to improve their lifestyle, for example by ensuring that they have enough money to make a deposit on a vehicle, providing education for their children or paying for activities such as going on a vacation and shopping.

Individuals with low level of income may struggle to save effectively because although they might be willing to save, they may lack sufficient income, as saving is related to the level of income (2012:36). Struwig, Roberts and Gordon (2013:31) argue that low income households use informal financial products such as stokvels for saving their income. Stokvels have become an important vehicle of saving within the informal community of South Africa. As a matter of fact, Matuku and Kaseke (2014:504) found that 11.5 million South Africans were members of some sort of stokvel in 2013. The success of stokvels can be credited to its benefits. These benefits include the ability to meet basic needs, creation of social capital and building harmonious relationships that have a high level of trust and honesty within them (Matuku and Kaseke, 2014:512). Other methods used by low income individuals to save include a selection of financial services and products such as fixed deposits and retirement fund vehicles (Melzer, 2007:31).

Orton (2007:3) believes that people are generally living longer than previous generations, which means that they have to save more of their income as a measure of planning for a longer retirement period. As a result, there is an increasing number of workers that are active in deciding how much money they wish to save for retirement instead of being passive participants in their employer’s pension plan (Duflo and Saez, 2003; Hung, Luoto, and Burke, 2015). This is supported by Lusardi and Mitchell (2011:510) who state that individuals are making a transition towards a defined contribution saving model that has the benefit of allowing more flexibility and labour mobility.

Bisin and Verdier (2000:956) state that certain behaviours, including saving behaviour, may be socially transmitted from parents to children. This means that an individual's behaviour is more likely to lean towards saving if his parents had a saving plan. Cronqvist and Siegel (2015:129) believe this social transmission of savings behaviour occurs because of the fact that children are born without defined preferences, so parents can easily transmit their personal preferences through parenting. Hogarth and Anguelov (2003) found in their study that households that had a saving goal saw saving as a necessity and saved more than households without any saving goal. One's attitude towards saving therefore influences one's saving behaviour.

Nene (2009:3) argues that financial illiteracy serves as a barrier to saving as most individuals with low levels of financial literacy do not see saving as being a necessity. As a result, they tend to attribute less importance to saving which leads to a low or nonexistent level of savings (Delafrooz and Paim, 2011:226; Melzer, 2007:96). There is also a low saving culture among students as Vakil (2017) reports that students save only 17 percent of their money and this is usually saved for recreational activities such as concerts and to purchase material goods. The same report also shows that in 2015, 61 percent of South African students wanted to learn about savings as opposed to 29 percent in 2017. However, the average monthly student expenses went from R2702 in 2015 to R2714 in 2017. This could suggest that the desire to learn about saving does not influence the saving behaviour of the students.

2.2.2 BORROWING BEHAVIOUR

According to Strebkov (2005:22), debt is the borrowing of money with the intention of paying it back at a later period. Similarly, Durlauf and Blume (2008) define debt as the total amount of cash that one party borrows from another with the obligation to repay it a later stage. According to FinMark Trust (2009), individuals are often driven to incur debt by the need for clothing, food, payment of accounts and even payments of other debt previously incurred. In fact, the more debt individuals incur, the less they are able to save in the future as a certain portion of their future income is solely committed to paying off the debt incurred (Swart, 2012:62). FinMark Trust (2012:40) further asserts that a majority of low-income households usually only incur debt to buy essential goods such as food or pay off water and electricity bills. These low-income households mostly use informal financing such as borrowing from stokvels, loan sharks or spazza shops (FinMark Trust, 2009).

According to Lee and Persson (2011:1), friends and family supply the majority of money borrowed in both developing and developed countries. This is further corroborated by Johar and Rammohan (2011:112) who believe that people are more at ease borrowing money from friends and family than they are borrowing from financial institutions. Individuals are also more drawn to borrowing from family and friends because this type of financing comes at a cheaper rate than more formal types of financing. This is however outweighed by the shadow costs involved in family or friends financing which stem from the social obligations owed to the family member or friend upon default. (Lee and Persson, 2011:3).

Nikolaidou and Vogiazas (2014:88) define credit management as the combination of methods and activities aimed at controlling the risks faced by individuals when using credit. These risks include the inability of the borrower to repay debt and the psychological stress that can be caused by over indebtedness (Spuchl'áková, Valasková and Adamko, 2015:676). According to Hilgert, Hogwarth and Berverly (2003:317), indicators of good credit management involve making credit payments on time and paying off all debt in full. Mandell and Klein (2009:17) further report that individuals who receive credit counselling tend to improve both their borrowing creditworthiness and behaviour.

Cost of higher education has risen at a staggering rate in the recent years. According to Statistics South Africa (2016), the average annual increase during 2008 to 2015 was 8.8 percent which was more than 2 percent higher than the CPI average annual increase. As the CPI index is used as a measure of inflation, this means the cost of tertiary education increased faster than the rate of inflation in South Africa. Kantrowitz (2012) also supports this, as research shows that the cost of higher education has raised at an annual average of more than double the rate of inflation.

Thus, the increasing rise in tuition fees has made funding for tertiary education sometimes the only recourse for many households (Badenhorst, 2017).

In South Africa, many students who come from disadvantaged backgrounds are funded by NSFAS (National Student Financial Aid Scheme) as it covers their tuition costs, accommodation costs, meal costs and material costs (NSFAS, 2018). The government student bursary and loan scheme plays an important role in alleviating the costs of tertiary education for many South African households. However, a problem with student loans such as NSFAS, is that students leave the tertiary education sector and head into the workforce with large amounts of debt (Rothstein and Rouse, 2011:150). They then struggle to pay back the money as some loans require graduates to start paying their debt 6 months after their graduation. This is despite the high unemployment rate (26.7%) in South Africa which is manifested by the difficulty experienced by the students in finding jobs (Khumalo, 2018). This is also aggravated by the rapidly increasing inflation rate and the absence of proportional wage growth (Shierholz, 2011; Hoover, 2001:35).

2.2.3 USE OF DISPOSABLE INCOME

The Organisation for Economic Co-operation and Development (OECD, 2012) defines disposable income as the cash that is left after direct tax has been removed from gross income. In other words, disposable income is income earned from employment, receipts of interest or any other activity from which taxes and social contribution has been deducted. According to Saad (2011:32), there is a relationship between a household’s current consumption patterns and its current disposable income. A survey conducted between October 2014 and October 2015 among 23 380 households across South Africa by Statistics SA therefore gives important information to about the disposable income of the average South African household. The results showed that the total annual household consumption expenditure was R1.72 trillion and that the average South African household spent R103 293 during the year in which the research was conducted. The expenditure primarily came from Housing, utilities, transport, food and miscellaneous goods and services. (Statistics South Africa, 2015:1).

Dwivedi (2010) believes that an individual’s consumption depends on their disposable income and other resources that are available and that it is only human nature that individuals’ average consumption increases as their disposable income increases. Jayathirtha and Fox (1996:104) add that individuals increase their consumption and sometimes overspend when they have more money or have additional cash available due to access to a credit card. Furthermore, Hearth, Kurtz and Boone (2006:74) state that individuals overspend their disposable income because they do not have a budget and they do not set financial goals. According to Statistics South Africa (2015:4), the lowest income households spend close to 40 percent of their income on food while highest income households only spend 8 percent on food. However, it is important to note that in rand value, that 8 percent is greater than the 40 percent that poorer households spend on food.

Garman, Kim, Kratzer, Brunson and Joo (1999:159) argue that individuals who do not save enough, who spend too much on products and run out of disposable income exhibit characteristics of poor financial behaviour. Hence it can be argued that there is a relationship between saving and disposable income. Ncwadi and Malindini (2016:18) explain that saving is based on disposable income as it was found that saving xxxxxxxxx In other words, individuals often do not necessarily plan to save but rather save what is left after they have covered their expenses and met their financial obligations. Stuart and Cohen (2012:7) add that an individual’s disposable income limits the amount of money that they are willing to save, their method of saving and the period for which they save. Mashego (2013:3) believes that South Africans are spending their disposable income too carelessly and suggests that they would be better off if legislation could be passed to impose saving to every South African.

2.3 RELATIONSHIP BETWEEN FINANCIAL LITERACY AND FINANCIAL EDUCATION AND FINANCIAL BEHAVIOUR

Various studies have focused on the relationship between financial education, financial literacy and financial behaviour (Lusardi, Mitchell and Curto, 2010; Van Rooij, Lusardi, and Alessie, 2011; De Bassa Scheresberg, 2013). In order to have a better appraisal of such relationship it is important to understand what is meant by financial education and financial literacy.

The rise of technology and the increasing complexity of the available financial products made it important for consumers to have better knowledge of these products in order to make more informed decisions (Choi, 2009:3). Financial markets are growing more sophisticated and offering a wider variety of complex instruments for investing, borrowing and saving (OECD, 2006:1). According to the European Securities and Markets Authorities (ESMA, 2007:1), many of these instruments are often aggressively marketed through alluring and sometimes misleading advertisements which constitute a danger to consumers who do not have the adequate knowledge and skills to effectively assess the risks involved. Consumers of financial products who do not sufficiently understand these products are therefore vulnerable, at risk of fraud and more likely to make irrational decisions which can have a severe impact on their lives. This has led to the increasing concern of governments and the need to craft more effective strategies for financial education (Grifoni and Messy, 2012: 3).

Financial education refers to any form of education that has an impact on how people manage their finances (Pryor, 2010:15). It is education that is intended to improve the relationship people have with money and how that relationship manifests in actions. Starček and Trunk (2013:1446) explain that financial education is a process through which users of financial products and investors gain a better comprehension of financial products, financial risks and opportunities and finally a better understanding of the means one can make use of to improve wealth. It is important to note that the latter definition specifically refers to a category of people that already have a certain level of understanding of financial products and services in general. This is also consistent with definition by the Organisation for Economic Co-operation and Development (OECD, 2005), which emphasizes the ultimate objective of financial education which is to produce more informed and skilful financial consumers.

Literacy is a permanently acquired skill that allows people to communicate using a system of symbols created by society and which assumes the ability to read, write and calculate (Starček and Trunk, 2013: 1445). Financial literacy therefore firstly assumes the fundamental definition of literacy but also adds a financial perspective to that definition. For instance, Akintson and Messy (2012:6) describe a financially literate person as one that has a basic understanding of fundamental financial concepts such as interest rates and compounding interests. It is also one who knows how to effectively assess the risks and repayments associated with saving and borrowing money (Starček and Trunk, 2013: 1445). Furthermore, Hastings, Madrian and Skimmyhorn (2012:5) define financial literacy as having knowledge about financial concepts and products and having the required mathematical skills to make good and sound financial decisions.

From these definitions, one can easily identify a relationship between the concepts of financial education and financial literacy and their impact on financial behaviour. In fact, numerous studies have established a connection between financial education, financial literacy and certain indicators of financial behaviour. For instance, de Bassa Scheresberg (2013) shows that financial education contributes to financial literacy which in turn is negatively correlated to the use of high cost borrowing methods. Lusardi and Mitchell (2007) found that people that are more financially literate are more likely to have a retirement plan. They are also more likely to participate in the stock market (Van Rooij, Lusardi and Alessie 2011). Furthermore, Bernheim and Garrett (2003) found that employees tend to save and participate in retirement plans more after receiving employer-provided financial education. On the other hand less financial literate people are more likely to have negative credit behaviours such as debt accumulation (Stango and Zinman, 2008; Lusardi and Tufano 2009).

In light of the preceding arguments, it is important to note a fundamental difference between the two concepts. Financial education is the ‘process’ by which a person acquires a better financial understanding whereas financial literacy is a state of already acquired financial skills that can help an individual make better financial decisions. In other words, a person who receives a good financial education is more likely to become financially literate and consequently more likely to exhibit good financial behaviours and to achieve his financial goals (Orton, 2007:5).

2.4 EFFECT OF DEMOGRAPHIC FACTORS ON FINANCIAL BEHAVIOUR

This section investigates the effect of five demographic factors on the financial behaviour of an individual. These factors include the individual's ethnicity, the individual's use of a budget or lack thereof, the individual's gender, the use of a credit card and the individual's age.

2.4.1 ETHNICITY

Several researches have shown that there are significant wealth disparities across different ethnic groups (Lee, Hanna, and Sireger, 1997; Altonji, Doraszelski, and Segal, 2001; Choudhury, 2001). According to Matthews (2015:113), White South African households have an income that is on average five times greater than Black South African households. This disparity has led scholars to look at the financial behaviour of different ethnic groups to understand the cause or factors that play a role in creating such a disparity. The results of these studies tend to converge towards the same conclusion. In fact, there is growing evidence that ethnicity determines how people manage their finances (Lee and Hanna, 2015; Rha, Montalto, and Hanna, 2006). For example, a study by Statistics SA (2015) showed that there were differences in the way income was spent across ethnic groups. Black households spent 17.93 percent of their income on food as opposed to 7.12 percent for White households and White households spent 38.22 percent on housing and utilities as opposed to 28.60 percent for Black households.

Oliver and Shapiro (2006:36) show that White households are more likely to save than Black households given similar economic conditions. In fact, according to a report by the Gauteng City Region Observatory (GCRO, 2015:2), only 18 percent of the black individuals that took part of the research said they found it easy to save money compared to 37 percent of the White and 37 percent of the Indian respondents. Choudhury (2001:13) adds that even the saving approach differs across the different ethnic groups. For instance, Rhee (2013) found that Black households are less likely to save for retirement than White households. Moreover, White households tend to use their savings and invest more in high return investments than Blacks (Keister, 2000; Hanna, Wang, and Yuh, 2010). According, Wang and Hanna (2007), even when controlling the effect of risk tolerance and other variables, White households are still more likely to invest in riskier assets such as equity than Black households.

Racial wealth disparity can also be noticed in indebtedness, especially for students. It is found that black students are more likely to incur debt to pay for their tertiary education (Oliver and Shapiro, 1997). Even though part of the disparity arises from the previously mentioned racial wealth disparity, there is still a difference in indebtedness between White and Black students of households of similar economic conditions (St. John, Paulsen and Carter, 2005; Charles, Roscigno and Torres 2007). A research in the United States of America (Scott-Clayton, 2018) expands on this issue and finds that the percentage of Black graduates students to default on their credit payments is five times higher than that of White dropouts. Based on the aforementioned literature, the following hypotheses can thus be formulated:

$H^{01:}$ There is no difference in the financial behaviour of commerce students based on their ethnicity.

$H^{a1:}$ There is a difference in the financial behaviour of commerce students based on their ethnicity.

2.4.2 USE OF A BUDGET

Planning is an important step in every process and this is also true in finance and personal money management. It is well documented that budgeting has an impact on the way people manage their finances (Lunt and Livingstone, 1992; Kidwell and Brinberg 2003; de Groot and van Raaij, 2016). Thobejane and Fatoki (2017:9415) define budgeting as the process of allocating a part of or all of a person's financial resources into distinct categories to allow for better planning and control of such resources. Lunt and Livingstone (1992:35) argue that budgeting or the lack thereof is a determinant of financial debt. This is also consistent with research by Ranyard and Craig (1995) on the relationship between budgeting and indebtedness. In other words, individuals who do not budget are more likely to be indebted than those who do. In a study featuring 100 new mothers, Walker (1996) found that the participants who used a budget as a measure to control additional expenditure experienced less financial difficulties than those without a budget. In fact, budgeting seems to act as a good measure to avoid unnecessary expenses (Thobejane and Fatoki 2017: 9415).

Furthermore, Ajzerle, Brimble, and Freudenber (2015:56) describe budgeting as a simple financial management strategy that can be of effective use in managing credit card debt. Lunt and Livingstone (1992:35) particularly highlight the intensive spending habit of people who do not budget, arguing that they are more likely to incur debt in order to purchase the things they cannot afford. Shahrabani (2012:160) also indicates that better attitudes towards budgeting can improve credit habits of often-indebted people. Furthermore, Kidwell and Brinberg (2003:1256) suggest that the effective use of a budget by students may alleviate the increasingly preponderant problem of student debt in the United States. Therefore, in light of the above, the following hypotheses are presented:

$H^{02:}$ There is no difference in the financial behaviour of commerce students based on their use of a budget.

$H^{a2:}$ There is a difference in the financial behaviour of commerce students based on their use of a budget.

2.4.3 GENDER

Although Struwig, Roberts and Gordon (2013:37) found that women and men in South Africa have similar attitudes toward spending, various other researchers have led to different conclusions. For instance, according to a study conducted by Hayhoe, Leach, Turner, Bruin and Lawrence (2001:129), female students spend more money on appearance items such as clothes while males spent more money leisure items like entertainment, trips and takeaways. Furthermore, the attachment of men and women to the labour force is different and this leads to the witnessed differences in financial behaviours between men and women (Fischer, 2010:15). Women are more likely to spend wisely, use sound financial practices and having a budget. They are also more positive with money and use it in the right areas as effectively as possible. (Hayhoe *et al.* 2001:130). This caution with regards to money usage might be of the result that women hold lower levels of wealth and have considerably lower earnings than men (Fischer, 2010:14). Norvilitis, Merwin, Osberg, Roehling, Young and Kasmas (2006:1399) state that although women hold lower levels of wealth, they protect money better as they are more likely have a budget, to plan their spending and generally will make the better financial decisions than men.

Men and women also tend to have different investment behaviours. Neelakatan (2010:230) argues that women tend to invest their financial resources more conservatively and are generally more risk averse than men. In the same vein, Watson and McNaughton (2007:53) argue that men are more aggressive when it comes to investing as they make riskier investments than women. Olsen and Cox (2001:30) suggest a few reasons why women are more risk averse. According to their study, female investors were found to be more strongly considerate of the potential loss they would make therefore saw safer as a route to avoid losing money. Secondly, female investors were also found to be less confident in their investments even though some of them had the same financial education and knowledge as men. (Olsen and Cox, 2001:30).

Conversely to the abovementioned studies, other studies however suggested differently. For example, several studies show that men are more conservative and use money more wisely than women do (Loibl and Hira, 2006; O'Neill, 2003). According to Borden, Lee, Serido and Collins (2008:35) male students tend to show a level of financial education that is higher and a better attitude towards financial education than their female counterparts. Chen and Volpe (2002:295) also reported that men are generally more educated in finance as they demonstrated higher levels of financial knowledge and hence that leads them to make better financial decisions than women. Furthermore, Messy and Monticone (2012:20) propose that financial education should be taught to women as a study they conducted show that women were more vulnerable when it came to careless spending and making sound financial decisions.

According to Roberts and Jones (2001:220) women are raised in a society that encourage them to find satisfaction and fulfilment from shopping and for this reason, they often tend to exhibit more compulsive buying decisions as compared to men. Davies and Lea (1995:665) suggest that women are easily pressured to make panic purchases and as a result, their financial decisions tend to be much poorer and irrational than that of men. A reason for this might also be that woman have more access to credit cards and consequently have higher levels of debt (Davis and Lea, 1995:665). The following hypotheses are thus presented:

$H^{03:}$ There is <u>no difference</u> in the financial behaviour of commerce students based on their <u>gender</u>.

$H^{a3:}$ There is <u>a difference</u> in the financial behaviour of commerce students based on their <u>gender</u>.

2.4.4 USE OF CREDIT CARD

An individual's financial stability is affected by their spending habits and how they use credit (Joireman, Kees and Sprott, 2010:155). The increasing availability of credit cards is causing more people to overspend and find themselves in deep credit card debt (Hearth *et al.*, 2006:74). According to Swart (2012:80), individuals often find themselves burdened with substantial amount of credit card debt because they are not well informed about the consequences of poor credit card usage. Therefore, individuals should only use credit cards when they are fully aware of their benefits and drawbacks. Swart (2012:80) also suggests that individuals should preferably be informed about all types of credit instruments including personal loans, service accounts and credit cards. It is also important to note that credit card debt in South Africa is more prevalent within certain communities that others. According to FinMark Trust (2009:3), White households use credit cards for the majority of their purchases, including groceries while Black and Coloured households mostly use cash. This makes White households the top users of credit cards in South Africa. In addition, White households are the most banked consumers and therefore have a greater access to credit and other banking services than any other ethnic groups in South Africa (FinMark Trust, 2009:3).

Credit card debt has become a serious concern due to the increasing accessibility of credit card to university students (Hoover 2001:35). According to Norvilitis *et al.* (2006:1396), credit card debt among students is an issue because of the fact that students find themselves with large debt but often struggle to repay the debt as they earn less than the working class. In other words, university students are more likely to find themselves overindebted as they do not have the necessary funds to make timely full credit payments. Futhermore, credit card debt is a problem among students as they may suffer negative psychological consequences. In fact, students who are in debt find it hard to manage their money and often this leads to lower self-esteem and higher levels of overall stress. (Lange and Byrd, 1998:205). According to Roberts, Golding, Towell, and Weinreb (1999:104) students who have considered leaving university because of financial problems are more likely to report poorer social functioning and mental health. Feinberg (1986:350) found that individuals who pay with credit cards spend less time and more money in making purchase decisions. This could imply that credit card owners spend less rationally than those who mostly use cash as a means of payment. Credit card users therefore need to be educated on how to properly use credit. In fact, Norvilitis et al. (2006:1399) who found that students who have been educated in finance and particularly financial planning practices had positive credit usage. Other researchers (Moore and Carpenter, 2009; Lai, 2010) concluded that taking financial planning as a course at university reduced the prospect of impulse buying. In light of the aforementioned, the following hypotheses are presented:

$H^{04:}$ There is <u>no difference</u> in the financial behaviour of commerce students based on their use of <u>credit cards</u>.

$H^{a4:}$ There is <u>a difference</u> in the financial behaviour of commerce students based on their use of <u>credit cards</u>.

2.4.5 AGE

The financial behaviour and decision-making process of individuals are closely related to their age. Sadiq and Ishaq (2014:48) revealed that risk aversion declines with the age of people when all other variables are constant. As students grow older, they become more tolerant of debt (Norvilitis, *et al.*, 2006:1399). A study conducted by Davies and Lea (1995:674) about student debt in universities showed that older students have a more pro-debt attitude as some of them had several kinds of debt and did not worry about the amount they had in their bank accounts. In addition, Hayhoe *et al.* (2005:8) state that university newcomers, especially those who are still in their teens, do not exhibit a pro-debt attitude from the start of their university period because they are still heavily influenced by their parents and by the fact that they would have only spent a limited time in university. However, as they get older they tend to adopt the culture they see and experience at university. According to Roberts and Jones (2001:220) as students spend more time in university and as they get older, they become more acceptant of debt due to the influence of other students.

Age also affects the saving and spending behaviour of people. Chen and Volpe (2002:291) argue that university students will consume most of their money rather than make savings when they are younger. This could be because they come from a family that has a poor saving culture. Phau and Woo (2008:443) believe that when students are younger they feel less pressured to save because they do not have many financial commitments. Therefore, it can be assumed that younger and older consumers have different approaches to saving. Furthemore, Heath *et al.* (2006:76) argue that younger consumers are more likely to spend most of their income on entertainment and transport. However, as they get older, a greater portion of their income is allocated to healthcare and a lot less to transportation. Older consumers are also more cautious with their spending while younger give less attention to the way they spend (Struwig *et al.,* 2013:37).

In addition, research shows that as people age, there is a decrease in their risk tolerance (Jiankopolos and Bernasek 2006:982). In other words, as people grow older, they tend to be more inclined to less risky investments and financial decisions. This is consistent with research by Lyons (2004) which investigated credit card practices of college students and found that credit card acquisition prior to college is significant predictors of risky financial behaviours. This view is of the outlook that as people age, they gain knowledge, experience and skills to make better choices (Sadiq and Ishaq, 2014:48). This suggestion is however contested by various scholars. For example, in Wang and Hanna (1997:27) argue that risk aversion will increase with age for individuals who have low levels of net worth and decrease with age for individuals with high net worth. Another research by Anbar and Eker

(2010:505) concludes that students' age and financial risk tolerance have no significant relationship. The following hypotheses are thus presented:

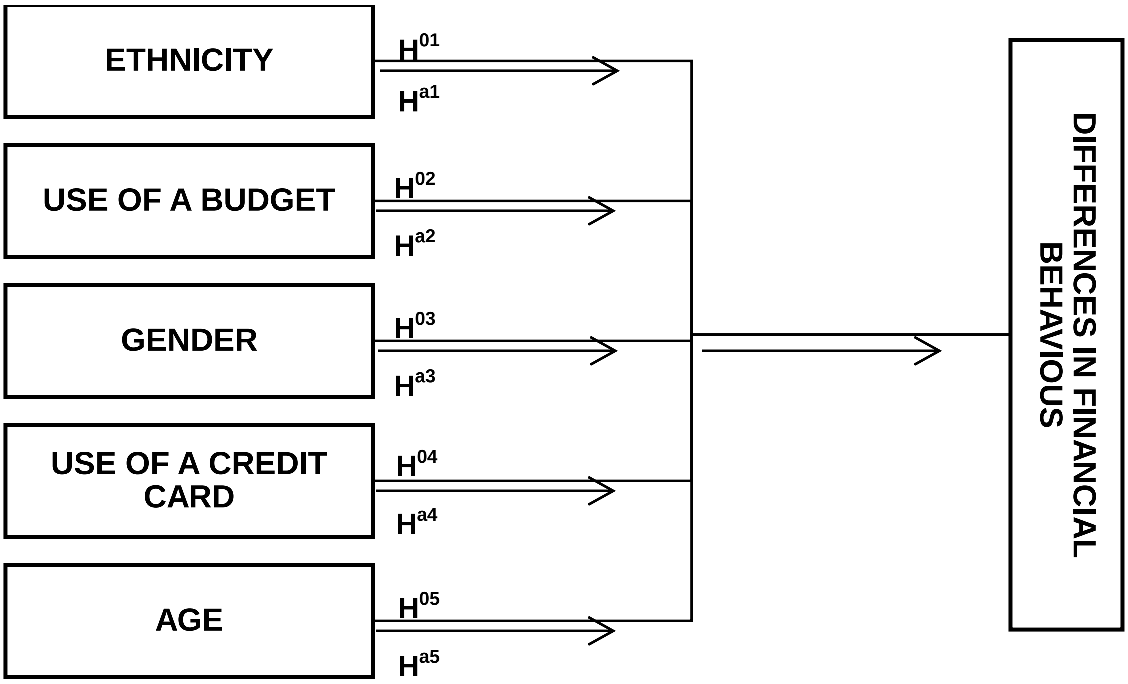
$H^{05:}$ There is no difference in the financial behaviour of commerce students based on their age.

$H^{a5:}$ There is a difference in the financial behaviour of commerce students based on their age.

Against this background, it can be suggested that each of the aforementioned factors namely ethnicity, budgeting, gender, credit card and age may have an influence on the financial behaviour of individuals. The following figure illustrates the potential relationship between these factors and financial behaviour.

FIGURE 2.2

THEORETICAL MODEL



Source: Researcher's own construction.

2.5 SUMMARY

The aim of this chapter was to provide an in-depth literature review of financial behaviour. In the context of this study, financial behaviour was defined in terms of saving, borrowing and use of disposable income. Saving refers to the act of putting money away in order for it to be used in the future. Borrowing was seen as taking and using someone else's money with the intention of returning it and disposable income for the purpose of the study was defined as the cash that is available after all expenses have been paid. An explanation was as given as to what constitutes good and bad financial behaviours. Furthermore, it was shown that financial education contributes to financial literacy which in turn affects the way people manage their finances. Finally, a discussion was provided on the effect that ethnicity, use of a budget, gender, use of credit cards and age have on financial behaviour.

In Chapter Three, the research design and methodology to be adopted in the study will be described and motivated. More specifically, the primary and secondary research methods, the sampling, data collection and data analysis methods used to empirically test the hypotheses formulated and address the research questions of the study, will be elaborated on.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

Research is a systematic activity that revolves around finding out things that are unknown and advancing the frontiers of knowledge (Walliman, 2011:9). This is achieved by providing information that is accurate and that can be supported by scientific evidence (Struwig & Stead, 2013:2). In this regard, this research seeks to investigate the relationship between the financial behaviour of Nelson Mandela University commerce students and their ethnicity, age, gender, use of a credit card and use of a budget. Chapter Two thus provided a review of the literature on the concept of financial behaviour and on the relationship between financial behaviour, financial literacy and financial education. Moreover, the five factors, namely ethnicity, age, gender, use of a budget and use of a credit card were explored as determinants of financial behaviour.

Chapter Three highlights the research design and methodology adopted in the study. The chapter firstly indicates the research design and describes the research paradigms and methodologies adopted. The chapter also delineates the methods used to collect the secondary and primary data as well as those that are used to identify the population and the sample of the study. Thereafter, the data analysis methods are explained and the manner in which the validity and reliability of the study is assessed is also described.

3.2 RESEARCH DESIGN

Cresswell (2009:3) defines the research design as the strategy for conducting research and describes the actions needed to direct extensive assumptions of research to the detailed methods of data analysis and collection. The research design therefore articulates the type of data required, the methods needed to collect and analyse this data, and how these activities will answer the research questions (Van Wyk, 2012). In this regard, Zikmund, Babin, Carr and Griffin (2010:67) argue that the research design selected needs to be suitable to answer the research questions and to achieve the objectives of the research. This is supported by Burns and Burns (2008:29) who argue that the research design is a strategic framework for action that bridges the gap between research questions and the implementation of the research strategy. Thus, the research design establishes the research paradigm and methodology to be used in the study (Collis & Hussey, 2009:11).

3.2.1 RESEARCH PARADIGMS AND METHODOLOGY

A paradigm can be described as the selection of mutually accepted modes of scientific practice (Struwig & Stead, 2013:267). It is the starting point of the research design (Leshem & Trafford, 2012:99). According to Schwandt (2001:184), a paradigm is a world view that is shared and represents a set of belief and values in a discipline as well as providing guidance to solve the problem. In this regard, a research paradigm addresses essential questions of a research study namely ontological (beliefs or philosophies about reality), epistemological (how one comes to know what reality is) and methodological (how to conduct research with the aim of addressing the research problem) questions (Houghton, Hunter & Meskell, 2012:34).

The two main research paradigms are the positivistic paradigm and the interpretative paradigm. Burns and Burns (2008:12) state that the positivistic paradigm presumes that the nature in which one operates in is external and objective to the individual. According to Collis and Hussey (2009:56), the positivistic paradigm is established by assumptions that theory can explain and logical reasoning can be applied to guarantee accuracy and objectivity in the study. The positivistic research paradigm relies heavily on deductions because theory is tested by observation (Saunders, Lewis & Thornhill, 1997:70). Furthermore, it is highly interested in explaining the relationships between concepts or variables which is particularly useful when working with large samples and is used to generalise behaviour (Taylor & Medina, 2013:2). In contrast, the interpretive paradigm consists of individuals' subjective experiences of the external world and therefore they may assume an inter-subjective epistemology along with the ontological belief that reality is socially constructed (Thomas, 2010:296). Thanh and Thanh (2015:24) state that the interpretive paradigm allows researchers to view the world through what participants perceive and have experienced.

According to Collis and Hussey (2009:67), the research methodology alludes to the systematic approach to conducting research. Two main types of methodologies can be distinguished namely a qualitative and quantitative research methodology. Furthermore, the research methodology is dependent on the paradigm of the study. Consequentially, Creswell (2003:17) asserts that the interpretive research paradigm relates to the qualitative research methodology while positivistic research paradigm relates to the quantitative research methodology.

According Creswell (2003:153), quantitative research involves collecting data in order for information to be quantified and subjected to statistical treatment for the purpose of accepting or rejecting alternate knowledge claims. The approach for quantitative research is meant for testing theories, testing hypotheses, indicating relationships between variables, and predicting outcomes (Garber, 1996:280). Furthermore, quantitative research is intrinsically objective and entails data collection that is numeric and usually requires the researcher to use mathematical models as a methodology of data analysis (Williams, 2007:66).

Qualitative research on the other hand is used to explore and understand the meaning that individuals or groups assign to a social or human problem (Creswell, 2009:4). According to Denzin and Lincoln (2005:10), qualitative research is an activity that discovers the observer in the world. It is often used when concepts, terms and critical issues of the research are discretionary to the research subjects instead of the researcher (Veal, 2005:33). Furthermore, qualitative research makes use of in-depth analysis to understand what is being studied and collects data containing words, images and sounds (Struwig & Stead, 2013:269). The following table presents the main differences between qualitative and quantitative research.

TABLE 3.1

DIFFERENCES BETWEEN QUANTITATIVE AND QUALITATIVE RESEARCH

CRITERIA	QUALITATIVE RESEARCH	QUANTITATIVE RESEARCH
PURPOSE	Understand and interpret social interaction	Test hypotheses, look at cause and effect, make predictions
GROUP STUDIED	Smaller and not randomly selected	Larger and randomly selected
VARIABLES	Study of the whole, not variables	Specific variables studied
FORM OF DATA COLLECTED	Qualitative data such as open-ended responses, interviews, participant observations, field notes and reflections	Quantitative data based on precise measurements using structured and validated data-collection instruments
TYPE OF DATA ANALYSIS	Identify patterns, features, themes	Identify statistical relationships
OBJECTIVITY AND SUBJECTIVITY	Subjectivity is expected	Objectivity is critical
RESULTS	Particular or specialized findings that is less generalizable	Generalizable findings that can be applied to other populations
NATURE OF OBSERVATION	Study behaviour in a natural environment	Study behaviour under controlled conditions; isolate causal effects

(Source: Johnson & Christensen, 2008:34)

For the purpose of the study, a positivistic research paradigm in conjunction with a quantitative research methodology will be adopted. This will allow the researchers to meaningfully and statistically explore the relationship between the variables and to test the formulated hypotheses. In the paragraph below, the research methods used in both qualitative and quantitative research will be discussed. Furthermore, the methods adopted in this study will be explained.

3.2.2 RESEARCH METHODS

Research methods are tools and techniques available to the researcher to assist in conducting research (Collis & Hussy 2009:67). Williams (2007:65) states that research methods entail collecting, analysing and interpreting data in order to understand a phenomenon. According to Creswell (2010:16), research methods are contingent on the paradigm and methodology of the research. Consequently, there are both quantitative and qualitative research methods.

Quantitative research methods involve the collection of quantitative data mainly through interviews, observations and surveys (Struwig & Stead, 2013:89). The collected data is then studied and tabulated, which allows for a statistical analysis of the data (Hittleman & Simon, 1997:31). In a quantitative context, interviews and surveys are usually conducted using close-ended questions, which give the respondents the possibility to choose from predetermined alternatives (Babbie, 2010:256). A typical example of such surveys is a questionnaire. According to Dorneyei and Taguchi (2010:9), questionnaires are popular tools in quantitative studies because of their ability to provide numerical data, which can then be used to complete statistical analysis and to draw objective conclusions. Questionnaires can be administered in a number of ways including through personal surveys, telephone interviews and self-completion questionnaire (Meadows, 2003:563). Questionnaires are low-cost instruments, they allow for quick collection of data and they give respondents a level of flexibility in completing them at a convenient place and a time (Gray 2009:157). Interviews on the other are time consuming and often necessitate large amount of money to conduct (Seidman, 2013:11).

Qualitative research methods generally include open-ended questions that are formulated as unstructured or semi-structured interviews (Struwig & Stead, 2013:103). In contrast to structured interviews, these types of interviews allow respondents to provide their own answers and to articulate them in a way that best describe their opinions (Collis and Hussey, 2009:57). The objective of semi-structured or unstructured interviews is to get a profound understanding of how respondents observe and explain their experiences (Seidman, 2013:9). Qualitative methods also include observational research which consists of observing and recording ongoing behaviour of the research subjects without any interference of the researcher (McBurney & White, 2009:222; Maree, 2016:90). It is worth noting that qualitative methods may produce data that is subjective to the researcher’s own interpretation (Krauss & Putra, 2005:758).

Due to the nature and paradigm of the study, close-ended questions will be used in order to make it easier to collect a vast amount of data from the respondents and to test the relationships highlighted by the theoretical framework. A structured questionnaire will therefore serve as a tool to collect the data. More details on the data collection and analyses techniques as adopted in this study will be described in the sections below.

3.3 DATA COLLECTION

The approach to data collection may vary from one study to another based on the nature of the study, the paradigm and methodology adopted in the study and on the objectives of the study. Considering the factors, the data collection process is explained in the paragraphs below.

3.3.1 SECONDARY RESEARCH

Secondary research focuses on data or existing information that have been collected in previous studies (Struwig & Stead, 2013:82). In light of the objectives of the study, a comprehensive literature study on financial behaviour and possible factors that may influence it financial behaviour was conducted and presented in Chapter Two. The Nelson Mandela University library served as a starting point to collect information. Various textbooks and journal articles, as well as databases such as Emerald, Sabinet database, SAGE and EBSCO host were used to search for relevant literature relating to the aforementioned topic. Furthermore, data searches using Google and Google Scholar were also conducted to ensure the diversity of the data.

3.3.2 PRIMARY RESEARCH

Primary research involves the collection of new data for a research project (Struwig & Stead, 2013:82). Primary data therefore refers to original data that is collected and contains information not found in other sources (Winslow & Faan, 2009:13). The information is gathered directly from the research subjects and is deemed highly reliable as it has not been manipulated or interpreted (Currie, 2005:90). The collection of primary data calls for decisions to be made about the population, the sample and sampling technique.

3.3.2.1 Population

McMillan and Schumacher (2010:129) describe a population as a group of cases, elements, or individuals that adapt to a specified criteria and to which researchers aim to generalise the findings of the study. It is the total group of elements or subjects relevant to a particular study (Hair, Babin, Money & Samouel, 2003:217). The population of this study is described as the Nelson Mandela University commerce students.

3.3.2.2 Sample

Frey *et al.* (2000:125) state that a sample is a subdivision of a population. A sample is such that its properties can be studied in order to obtain information about the population as a whole using inferential statistics (Coldwell & Herbst, 2004:74). The sample for the study is defined as undergraduate students who are registered at the Nelson Mandela University during the 2018 academic year. Only undergraduate students specifically registered for the following programmes within the Business and Economics Faculty were considered:

- BCom: Accounting
- BCom: General Accounting
- BCom: Computer Sciences and Information Systems
- BCom: Economics and Statistics
- BCom: Economics
- BCom: Financial Planning
- BCom: General
- BCom: Tourism
- BCom: Industrial Psychology and Human Resource Management
- BCom: Law
- BCom: Marketing Management
- BCom: Logistics and Transport Management
- BCom: Rationum

3.3.2.2 Sample size

A total of 500 questionnaires were thus distributed. 460 questionnaires were returned and 400 questionnaires were deemed useable. The rest of the questionnaires (60) were either unusable or deleted due to missing information or values. The response rate was therefore 92% [(460÷500)] and the effective response rate 80% [(400÷500)].

a) Sampling methods

The different sampling methods are divided into two major classes namely non-probability sampling and probability sampling (Maree, 2016:192). Probability sampling according to Lohr (2010:60), is a method of sampling where each element of the population has the same probability of being included in the sample. Latham (2007) adds that probability sampling consists of four types sampling techniques namely random sampling, systematic sampling, stratified random sampling, and cluster sampling. According to McNealy (1999:155), a *random sample* is selected by assigning a number to each of the members on the population list and by randomly selecting the numbers to determine the sample. All the members of the population that are assigned a number have an equal probability of being chosen (McNealy, 1999:155). In *systematic sampling,* a starting point is randomly chosen from a list of population members. Thereafter, the k^{th} unit after the starting point is chosen to be in the sample (Lohr, 2010:25). According to Maree (2016:195), *stratified sampling* occurs when the population is divided into a number of homogenous, non-overlapping subgroup called strata. Lunsford and Lunsford (1995:109) describe strata as natural groups that are mutually exclusive such as age, gender or even provinces. Finally, *cluster sampling* describes a technique whereby every member of the population is allocated to a cluster or group, clusters are then selected at random and the members of the selected cluster are included in the sample (Latham, 2007).

Non-probability sampling according to Lunsford and Lunsford (1995:105) is a sampling method that is not random and therefore does not give all the members in the population an equal chance of being selected. Non-probability sampling methods are subjective in nature and the probability of an element in a population being selected is unknown (Bryman & Bell, 2011:176). There are four types of non-probability sampling namely convenience sampling, quota sampling, snowball sampling and purposive sampling (Maree, 2016:197-198). *Convenience sampling* involves obtaining respondents who are readily available and willing to participate in a study (Frey, Botan & Kreps, 2000:131). Convenience sampling is often used when a large number of responses are needed (Zikmund, Babin, Carr & Griffin, 2010:396). *Quota sampling* is a method used to ensure that there is an equal representation of respondents in each layer of stratified sample grouping (Lunsford & Lunsford, 1995:110). In other words, this technique allows for every subgroup of a sample to be proportionally represented (Zikmund *et al.*, 2010:397). According to Lohr (2010:517), *snowball sampling* is a method whereby respondents are asked to identify other respondents for the sample, this continues until the desired sample size is reached. This allows the researcher to obtain subjects that will be suitable for the study based on referrals of other respondents (Collis & Hussey, 2009:212). Finally, *purposive sampling* also known as judgemental sampling occurs when respondents are handpicked because of their expertise and knowledge in a particular field (Lunsford & Lunsford, 1995:110).

For the purpose of this study, convenience and snowball sampling will be used to determine the sample. This is due to time and resource constraints as convenience sampling is convenient, quick and low-cost (Struwig & Stead, 2013:120). The data was thus collected using close ended questionaires. The first part of the questionnaire included personal information questions about the respondents. In the second part of the questionnaire, respondents were required to indicate whether they borrow, use disposable cash/income or save to purchase or participate in certain daily financial activities. This was done to reflect the definition of financial behaviour adopted in the study.

3.4 DATA ANALYSIS

For the purpose of this study, the data received from the questionnaires will be captured in Microsoft Excel. The questionnaire will be divided into two sections:

namely, section A and B. Section A will contain information requesting demographic and general information of the sample. Respondents will be required to provide details on their population group, gender, source of income, age. Further questions will be asked to determine whether they have a credit card, whether they make use of a student loan to fund their studies, whether have any dependent children and finally and whether they follow a budget.

In section B, respondents will be required to indicate whether they use debt, credit or disposable income to purchase or participate in certain financial activities using a nominal scale. For the purpose of the study, Chi-square statistics will be used to assess statistical significance of the results and will determine if a relationship exist between the demographic factors and the financial behaviour of the respondents (Collis & Hussey 2009:263). According to Struwig and Stead (2013:174), the Chi-square test of independence is used when comparisons are made between observed frequencies and expected frequencies. Gravetter and Wallnau (2011:535) add that Chi-square tests for independence are used when a study requires a null hypothesis. Furthermore, Collis and Hussey (2009:263) suggest that the larger the value of the Chi-square statistics, the more deviation there is from the null-hypothesis, which is an indication that the null hypothesis should be rejected in favour of the alternative hypothesis. Several conditions must be met to use a chi-square test of independence. For example, the observations must be independent. That is, each observed frequency must be generated by a different individual. In addition, a Chi-square test must not be performed when the expected frequency of any cell is less than five. (Gravetter & Wallnau, 2011:545). Hair, Babin, Money and Samouel (2003:263) consider 0.05 as an acceptable level of statistical significance for calculating Chi-square statistics.

In the study, Cramer's V statistic will be used to establish the practical significance of the results. Cramer's V serves as a good indicator of the strength of the relationship between variables; however, it does not indicate the direction of the relationship between those variables (Bryman & Bell, 2011:350). Cohen's standards for interpreting Cramer's V will be used as indicated in the following table:

TABLE 3.2

STANDARD INTERPRETATION OF CRAMER'S V STATISTICS

DEGREES OF FREEDOM	SMALL EFFECT	MODERATE EFFECT	LARGE EFFECT
df* = 1	0.10 < V < 0.30	0.30 < V < 0.50	V > 0.50
df* = 2	0.07 < V < 0.21	0.21 < V < 0.35	V > 0.35
df* ≥ 3	0.06 < V < 0.17	0.17 < V < 0.50	V > 0.29

(Source: Cohen, 1988)

3.4.1 RELIABILITY AND VALIDITY

Hair *et al.* (2003:170) state that reliability indicates the extent to which the measuring instrument is error free and the research findings it produces are consistent and accurate. In other words, reliability refers to the probability that the study would produce the same results if it had to be repeated (Collis & Hussey 2003:64). Inter-rater reliability will be employed to test reliability. According to Burns (2004:57), inter-rater reliability is the degree of agreement obtained by different raters using the same instrument, scale or procedure. Inter-rater reliability can be determined using a number statistics.

Maree (2016:239) defines validity as the degree to which an instrument measures what the researcher intends to measure. Face and content validity will be used to determine the financial behaviour and its relationship with specific demographic factors. Face validity refers to the extent an instrument seems to measure what it is intended to measure (Maree, 2016:240). Content validity is the degree to which the instrument covers the theoretical content domain of the construct being measured (Struwig & Stead, 2013:146).

3.5 RESEARCH ETHICS

The Nelson Mandela University requires that certain processes be followed with regard to ethics based on the type of study and the subjects involved in the study. For this study, full ethical clearance was needed because the study involves working with a vulnerable group. These vulnerable or sensitive groups include among others children, the elderly, persons in dependent relationships and students.

Application for approval was applied for at the Nelson Mandela University Research Ethics Committee (human) or the REC-H. The application involved the submission of the questionnaire of the study and the completion of a form from the REC-H. On the form, the title of the study, the person responsible for the study, the scope and purpose of the study as well as the commencement date and objectives of the study were stated. The risks and benefits of the study as well as the targeted participant group were also declared. Finally, a declaration of privacy was signed. By signing this declaration, it was agreed that all respondents of the study would remain anonymous and their confidentiality would be protected at all times.

Along with the form, a summary of the research methodology was submitted along with a letter to the Deputy Vice Chancellor requesting permission to conduct the study. An informed consent form which is a written information given to the respondents prior to participation and the institution permission were required to be attached as appendices. Application was approved and full ethical clearance was granted. Ethical clearance number received: H-17-BES-BMA-001.

3.6 SUMMARY

This chapter discussed the design and methodologies adopted in this study. Of the two main research paradigms, the positivistic paradigm was adopted in conjunction with a quantitative research methodology. Various research methods were explored and a quantitative method was adopted, making use of a survey composed of closed-ended questions. The data collection process was then explained, highlighting the intended methods of secondary and primary data collection and describing the population, the sample and sampling technique used in the study. Thereafter, details were given on the data analysis tools and the manner in which reliability and validity of the data collected was ensured throughout the study. Finally, a discussion was provided on the ethical aspect of the study and the process that was followed to respect ethical regulations of the university. In Chapter Four, the results and interpretation of the empirical data collected from the Nelson Mandela University commerce students will be presented.

CHAPTER FOUR

EMPIRICAL RESULTS

4.1 INTRODUCTION

In Chapter Three, an outline of research design and methodology adopted for this study was presented and described. This also included a discussion on the sample of the study, the data collection method and data analysis procedures used in this study. The aim of this chapter, Chapter Four, is to present and report on the findings of the data analysed. Firstly, the demographic data of the respondents is described. Thereafter, the results from the comparison between students of different ages, ethnicities and genders will be reported. In addition, results from the comparisons made between students who make use of a budget or a credit card and those who do not will be reported. For the purpose of establishing whether differences exist in the financial behaviour of students, Chi-square statistics was used to establish statistical significance. Cramer's V statistics was used to establish practical significance.

4.2 DESCRIPTIVE STATISTICS

The sample used for the study is described in the sections below. A sample of 400 bachelor of Commerce students and the demographic information of this sample is described in Tables 4.1 and 4.2. Table 4.1 indicates the demographic data that was used to determine whether there are differences in financial behaviour.

TABLE 4.1

FREQUENCY TABLE FOR DEMOGRAPHIC DATA

GENDER	FREQUENCY	%
Male	210	52.50%
Female	190	47.50%
Total	400	100.00%

TABLE 4.1 (CONTINUED)

FREQUENCY TABLE FOR DEMOGRAPHIC DATA

ETHNICITY	FREQUENCY	%
Black	219	54.75%
White	91	22.75%
Coloured	58	14.50%
Indian	11	2.75%
Asian	13	3.25%
Not willing to say	8	2.00%
Total	400	100.00%
AGE	**FREQUENCY**	**%**
<20 years	75	18.75%
20-29 years	316	79.00%
30-39 years	5	1.25%
40-49 years	2	0.5%
50-59 years	2	0.5%
Total	400	100%
CREDIT CARD	**FREQUENCY**	**%**
Yes	105	26.25%
No	295	73.75%
Total	400	100%
BUDGET	**FREQUENCY**	**%**
Yes	219	54.75%
No	181	45.25%
Total	400	100%

As previously indicated, 500 questionnaires were distributed. A total of 460 questionnaires were returned and 400 questionnaires were deemed useable. Most of the respondents were males (52.50%) with females being inferior in number (47.50%). The majority of the respondents were black students (54.75%) while White (22.75%), Coloured (14.50%), Indian (2.75%) and Asian (3.25%) students made up the remainder of the sample. The 20-29 years age group was the largest in the study (79%) and it was followed by the below 20 years age group (18.75%). Most of the respondents indicated they did not have a credit card (73.75%) and the remainder (28.03%) said they use credit cards to make payments of some sort. A slight majority (54.75%) of the students indicated they made use of a budget compared to those who do not (45.25%).

TABLE 4.2

FREQUENCY TABLE FOR ADDITIONAL DEMOGRAPHIC DATA

STUDENT LOAN	FREQUENCY	%
Yes	127	31.75%

No	273	68.25%
TOTAL	**400**	**100.00%**
CHILD DEPENDENTS	**FREQUENCY**	**%**
None	357	89.25%
One	33	8.25%
Two or more	10	2.50%
TOTAL	**400**	**100.00%**
PRIMARY SOURCE OF INCOME	**FREQUENCY**	**%**
Part-time job whilst studying full-time	70	17.50%
Full-time job whilst studying part-time	9	2.25%
Dependent on parent(s)/guardian(s)	239	59.75%
Stipend allocation from bursary/loan(excluding NSFAS)	26	6.50%
NSFAS	41	10.25%
SASSA social grant	1	0.25%
An academic Sponsor	9	2.25%
A “blesser” / benefactor	3	0.75%
Other (specify):	2	0.50%
TOTAL	**400**	**100%**
CURRENT LIVING SITUATION	**FREQUENCY**	**%**
Staying at home with parents / guardian	129	32.75
From PE but staying on my own / with roommates	51	12.75
Not from PE and staying at off-campus accommodation	152	38.00
Student residence / On-campus accommodation	68	17.00
TOTAL	**400**	**100%**
LARGEST AMOUNT BORROWED FROM SOMEONE	**FREQUENCY**	**%**
R0 – R500	270	67.50
R501 – R1000	57	14.25
R1001 – R2 500	41	10.25
R2501 – R5 000	23	5.75
R5001 – R10 000	9	2.25
TOTAL	**400**	**100%**
LARGEST AMOUNT LENT TO SOMEONE	**FREQUENCY**	**%**
R0 – R500	245	61.25
R501 – R1000	75	18.75
R1001 – R2 500	44	11.00
R2501 – R5 000	24	6.00
R5001 – R10 000	12	3.00
TOTAL	**400**	**100%**

Table 4.2 contains additional demographical data of the study. Majority of the respondents in the study (68.25%) indicated they do not use a student loan. A large percentage (89.25%) indicated they do not have any dependent child, 8.25 percent have one child dependent and only 2.5 percent have two or more children. The major primary source of income was seen to be contributions from parents and guardians (59.75%); secondly some respondents (17.5%) indicated they have a part

time job and thirdly, 10.25 percent indicated they are financed by the National Student Financial Aid Scheme (NSFAS). Interestingly, only 0.75 percent and exactly 3 respondents of the study indicated they are primarily financed by a “blesser” or benefactor. Most of the respondents (38%) are not originally from Port Elizabeth and stay at an off-campus accommodation. Students who indicated they stay with their parents amounted to 32.75 percent of the respondents, 17 percent said they stay on-campus or at a student residence and lastly 12.75 percent indicated to be from PE but were staying on their own or with a roommate/housemate. The majority of the respondents (67.50%) indicated the most they have borrowed is between R0-R500, 14.25 percent said it is between R501-R1000 and a low 2.25 percent said they have borrowed between R5001-R10 000. Finally, most students (61.25%) indicated they have lent someone a sum of money between R0-R500, 18.75 said they have lent an amount between R501-R1000 and interestingly 3 percent indicated they have lent someone an amount of between R5001-R10 000.

4.3 INFERENTIAL STATISTICS

The empirical results were obtained as follows. Respondents were given a questionnaire which they had to complete. The first part of the questionnaire included general information questions as indicated by table 4.1 and 4.2. In the second part of the questionnaire, respondents were required to indicate whether they borrow, use disposable cash/income or save to purchase or participate in certain daily financial activities. This was done to reflect the definition of financial behaviour adopted in the study. The number of times the respondents indicated whether they either borrow, save or use disposable cash/income were then counted and totalled. Individual and overall percentages from each of the categories (borrow, use disposable cash and save) were then calculated. This made it possible to determine how much of the daily financial transactions result from borrowing, disposable cash and savings and ultimately to determine how much the respondents borrow, use disposable income or save. As shown by tables 4.4 through table 4.8, respondents were classified according to each of the factors of the theoretical model of the study namely age, gender, ethnicity, use a budget and use a credit card and chi-square test was performed to determine whether statistical differences exist in the responses of respondents.

TABLE 4.3

INTERPRETATION OF CRAMER'S V STATISTICS

DEGREES OF FREEDOM	SMALL EFFECT	MODERATE EFFECT	LARGE EFFECT
df* = 1	0.10 < V < 0.30	0.30 < V < 0.50	V > 0.50
df* = 2	0.07 < V < 0.21	0.21 < V < 0.35	V > 0.35
df* ≥ 3	0.06 < V < 0.17	0.17 < V < 0.50	V > 0.29

(Source: Cohen, 1988)

Cramer's V statistics were used to determine whether differences found were practically significant or not. Cohen's standards for interpreting Cramer's V was used in the study and this can be seen in the Table 4.3. In Table 4.4, respondents are grouped according to ethnicity. Respondents are asked whether they borrow, use cash (disposable income) or save to participate in various daily activities.

TABLE 4.4

COMPARISON OF THE STUDENTS BASED ON THEIR ETHNICITIES

GROUP	BORROW		CASH		SAVE		TOTAL	
ASIAN	27	9.96%	177	65.31%	67	24.72%	271	100%
BLACK	533	12.17%	2751	62.84%	1094	24.99%	4378	100%
COLOURED	327	24.62%	739	55.65%	262	19.73%	1328	100%
INDIAN	21	10.14%	140	67.63%	46	22.22%	207	100%
WHITE	248	12.38%	1322	65.97%	434	21.66%	2004	100%
TOTAL	**1156**	**14.12%**	**5129**	**62.64%**	**1903**	**23.24%**	**8188**	**100%**

(Chi^2= 155.85, $p < .0005$, statistically significant), V = 0.10 (small practical significance)

The majority of the Asians respondents, use cash (65.31%) while 9.96 percent engaged in borrowing and 24.72 percent chose to save. From the Black respondents, 12.17 percent indicated they borrow, 62.84 percent said they use cash and 24.99 percent engage in saving. The majority of the Coloured respondents indicated they use cash (55.65%); 24.62 percent said they borrow money - this was the largest borrowing percentage among the ethnicities - and 19.73 percent said they save. From the Indian respondents, 10.14 percent indicated they engage in borrowing behaviour, 67.63 percent indicated they use cash and 22.22 percent indicated they save. Finally, 65.97 percent of the White respondents said they use cash, 21.66 percent said they save and the remainder (12.38%) indicated to engage in borrowing.

Table 4.2 shows that there is a significant statistical difference in the financial behaviour of the different ethnicities ($Chi^2 = 155.85$ $p < .0005$, $V = 0.10$). Cramer's V statistics ($V = 0.10$) shows this difference to be of a small practical significance. The Chi-square value is greater than the critical value (df = 8; 15.51), therefore the null hypothesis is rejected in favour of the alternative hypothesis as follows:

$H^{a1:}$ There is a difference in the financial behaviour of commerce students based on their ethnicity.

TABLE 4.5

COMPARISON OF STUDENTS WITH AND WITHOUT A BUDGET

	BORROW		CASH		SAVE		TOTAL	
BUDGET	553	11.95%	2847	61.52%	1228	26.53%	4628	100%
NO BUDGET	430	11.99%	2438	67.99%	718	20.02%	3586	100%
TOTAL	**983**	**11.97%**	**5285**	**64.34%**	**1946**	**23.69%**	**8214**	**100%**

($Chi^2 = 49.31$, $p < .0005$, statistically significant), $V = 0.08$ (Not practically significant)

In Table 4.5, respondents are classified according to whether or not they have a budget. Respondents with a budget mainly use cash (61.52%) to purchase or participate in the listed activities; 11.95 percent said they borrow and 26.53 percent indicated they save. Of those who do not have a budget, 11.99 percent said they engage in borrowing behaviour, 67.99 percent indicated they use cash and 20.02 percent said they save. In total, 11.97 percent or the respondents borrow, 64.34 percent use cash (disposable income) and 23.69 percent save to participate in their daily activities. In total, 11.97 percent or the respondents borrow, 64.34 percent use cash (disposable income) and 23.69 percent save to participate in their daily activities.

The table shows a significant difference in the financial behaviour of respondents who have a budget and those who do not ($Chi^2 = 49.31$ $p < .0005$, $V = 0.08$).

Cramer's V statistics (V=0.08) reveal the difference is not practically significant. The Chi-square value is greater than the critical value (df = 2; 5.99), therefore the null hypothesis is rejected in favour of the alternative hypothesis as follows:

$H^{a2:}$ There is a difference in the financial behaviour of commerce students based on their use of a budget.

TABLE: 4.6

COMPARISON OF THE STUDENTS BASED ON THEIR GENDER

	BORROW		CASH		SAVE		TOTAL	
MALE	495	11.39%	2831	65.13%	1021	23.49%	4347	100%
FEMALE	488	12.53%	2460	63.16%	947	24.31%	3895	100%
TOTAL	**983**	**11.93%**	**5291**	**64.20%**	**1968**	**23.88%**	**8242**	**100%**

Chi^2 = 4.07, p = 0.131 (Not statistically significant), V = N/A p > 0.50.

In table 4.6, respondents are classified in terms of gender. There were 52.74 percent male respondents in this study. Exactly, 11.39 percent of males indicated they borrow to purchase and participate in activities while 65.13 percent said to use cash and 23.49 percent indicated they save. Females represent the remaining 47.26 percent of the respondents. While 12.53 percent of females indicated they borrow to participate in activities, 63.16 percent said they use cash and the remaining 24.31 percent indicated they save. In total, 11.93 percent claim to borrow, 64.20 percent prefer to use cash and 23.88 percent indicated they save to purchase or participate in their daily activities. In total, 11.93 percent or the respondents borrow, 64.20 percent use cash (disposable income) and 23.88 percent save to participate in their daily activities.

Table 4.6 shows that there is no statistical significance in the financial behaviour of male and female students (Chi^2 = 4.07, p = 0.131, V = N/A p > 0.50.).). The Chi-square value is lower than the critical value (df = 2; 5.99), therefore the null hypothesis below cannot be rejected:

$H^{03:}$ There is no difference in the financial behaviour of commerce students based on their gender.

TABLE: 4.7

COMPARISON OF STUDENTS WITH AND WITHOUT A CREDIT CARD

	BORROW		CASH		SAVE		TOTAL	
CR CARD	252	10.92%	1524	66.06%	531	23.02%	2307	100%
NO CR CARD	731	12.34%	3767	63.60%	1425	24.06%	5923	100%
TOTAL	**983**	**11.94%**	**5291**	**64.29%**	**1956**	**23.77%**	**8230**	**100%**

$Chi^2 = 5.12$, $p = 0.77$ (Not statistically significant), V = N/A $p > 0.50$.

In table 4.7, respondents are classified according to whether or not they make use of credit cards. As indicated by table 4.1, only 26.25 percent of the respondents use credit cards. Of these 26.25 percent, only 10.92 percent indicated they borrow money to purchase or participate in their daily activities; 66.06 percent use cash and 23.02 percent indicated they save. Of the respondents who indicate that they do not use credit cards, 12.34 percent borrow money, 63.06 percent use disposable cash and 24.06 percent save to purchase or participate in their daily activities. In total, 11.94 percent or the respondents borrow, 64.29 percent use cash (disposable income) and 23.77 percent save to participate in their daily activities.

Table 4.7 reveals that there is no statistical significance between the financial behaviour of the students who use and those who do not use credit cards (Chi2 = 5.17, p = 0.77, V = N/A p > 0.50). The Chi-square value is lower than the critical value (df = 2; 5.99), therefore the null hypothesis cannot be rejected:

$H^{04:}$ There is no difference in the financial behaviour of commerce students based on their use of credit cards.

TABLE: 4.8

COMPARISON OF THE STUDENTS BASED ON THEIR AGE

AGE	BORROW		CASH		SAVE		TOTAL	
<20	242	16.86%	842	58.68%	351	24.46%	1435	100%
20-29	725	11.04%	4311	65.67%	1529	23.29%	6565	100%
30-39	12	10.00%	64	53.33%	44	36.67%	120	100%
40-49	0	0.00%	29	59.18%	20	40.82%	49	100%
50-59	4	7.84%	41	80.39%	6	11.76%	51	100%

TOTAL	**983**	**11.96%**	**5287**	**64.32%**	**1950**	**23.72%**	**8220**	**100%**

(Chi^2 = 72.33, $p < .0005$, statistically significant), V = 0.07 (small practical significance)

Respondents were grouped into five groups based on their age. The largest group of respondents represent individuals between the ages of 20 and 29. Exactly, 11.04 percent of these respondents borrow, 65.67 percent use cash and 23.29 percent save to participate in their daily activities. The second largest of the groups is respondents below 20 years. From this age group 16.86 percent indicated they borrow, 58.68 percent use cash and 24.46 percent save. Only 10 percent of the 30-39 group preferred to borrow while 53.33 percent use cash and the remaining 36.67 percent indicated they save. The 40-49 is the smallest of all groups. From this group, 59.18 percent of the respondents indicated they use disposable cash; none of them borrow and 40.82 percent indicated they save for the activities. The 50-59 is the last age group of the sample. From this group, 7.84 percent prefer to borrow and contrastingly, 80.39 percent prefer using cash while the remaining 11.76 percent chose to save their money in order to participate in the activities. In total, 11.96 percent of the sample indicated they would borrow, 64.32 percent said they use cash and 23.72 said they save their money.

Table 4.8 shows that there is a significant statistical difference in the financial behaviour of the different age groups (Chi^2 = 72.33 $p < .0005$, V = 0.07). Cramer's V statistics (V = 0.07) reveal this difference to be of small practical significance. The Chi-square value is greater than the critical value (df = 8; 15.51), therefore the null hypothesis is rejected in favour of the alternative hypothesis:

$H^{a5:}$ There <u>is a difference</u> in the financial behaviour of commerce students based on their <u>age</u>.

4.4 VALIDITY AND RELIABILITY

Inter-rater reliability was used to the reliability of the research insturment. According to Burns (2004:57), inter-rater reliability is the degree of agreement obtained by different raters using the same instrument, scale or procedure. Three researchers were used with a Bachelor of Commerce degree as a minimum qualification to ensure that the statements used to measure financial behaviour were consistent and reliable. Where disagreements on interpretation occurred, a process of logical argumentation was ensued and guided by the literature.

Maree (2016:239) defines validity as the degree to which an instrument measures what the researcher intends to measure. Face and content validity was used to ensure that the measuring instrument measured the financial behaviour of commerce students. Face validity refers to the extent an instrument seems to measure what it is intended to measure (Maree, 2016:240). Content validity is the degree to which the instrument covers the theoretical content domain of the construct being measured (Struwig & Stead, 2013:146). As such, the construction of the measuring instrument was guided by the literature.

4.5 SUMMARY

In this chapter, the empirical results of the study were presented. Firstly, a discussion on the descriptive statistics was given and the demographics of the respondents were presented. Secondly, the inferential statistics were presented and the financial behaviour of the students was examined in light of the five demographic factors investigated in the study. A brief discussion was given on how the inferential statistics were derived. Furthermore, to establish whether statistical differences exist in the financial behaviour of the students based on their ethnicity, gender, age, credit card use and use of a budget, Chi square statistics were calculated and the practical significance of the results was tested using Cramer's V statistics. Finally, face/content validity as well as inter-rater reliability tests were conducted in order to ensure the reliability and validity of the results.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

Chapter Four presented the empirical results of the study and reported on the reliability and validity of these results. In this chapter, Chapter Five, an overview of the study will be given. This will be followed by a summary and interpretation of the main findings. Furthermore, recommendations will be provided on how the financial behaviour of commerce students in the Nelson Mandela University can be improved. The limitations of the study and possible areas for future research will then be presented. Finally, concluding remarks to the study will be given.

5.2 OVERVIEW OF THE STUDY

In Chapter One, an introduction and background to the topic under investigation were given. In addition, the problem definition, the purpose and the research objectives of the study were presented. University students displaying bad financial behaviours such as overspending, running out of cash, overusing credit and leaving no money behind for emergencies was seen as the main problem leading to this study. The purpose of the study was to investigate the financial behaviour of Nelson Mandela University bachelor of commerce students and to determine whether differences exist between students based on biographical factors. This stemmed from the idea that identifying factors that are determinant in shaping the financial behaviour of university students will provide a more profound understanding of such behaviour. Against this background, the primary and secondary objectives were formulated.

The primary objective of this study was to investigate the financial behaviour of Nelson Mandela University commerce students. In order to accomplish the primary objective, the following secondary objectives were formulated:

(a) To conduct a literature review on financial behaviour, examine the relationship between financial literacy, financial education and financial behaviour and finally, to determine the relationship between specific demographic variables and financial behaviour.

(b) To suggest appropriate hypotheses based on the literature review for empirical testing.

(c) To select an appropriate research methodology and research methods to give effect to the purpose of the study.

(d) To empirically test the measuring instrument by sourcing primary data from Nelson Mandela University commerce students.

(e) To provide pertinent conclusions and recommendations to role players in the tertiary education system as well government authorities on how to enhance financial education and improve financial behaviour based on the results of the of the study.

Constructed on these objectives, the research questions and the research hypotheses were stated in Chapter One. Furthermore, the research design and methodology as well as the scope and demarcation of the study were described. In addition, the significance of the study was given and the chapter was concluded by providing a structure of the research.

In Chapter Two, a comprehensive literature review was provided and thus achieving the first secondary objective of this study. The literature review provided a description of the concept of financial behaviour. From the literature, it is apparent that financial behaviour is generally described as the decisions and actions of individuals with regard to their finances. These actions and decisions are in themselves affected by factors that have a direct impact on how people make use of their money. These factors include elements such as personality, self-control, values, education and social surroundings namely the influence of parents, family, friends and the community as a whole. The broad aspect of the concept of financial behaviour made it necessary to define it in a narrower and more appropriate way for the study. Thus, for the purpose of the study, financial behaviour was defined in terms of saving, borrowing and use of disposable income. Saving refers to the act of putting money away in order for it to be used in the future. Borrowing was seen as taking and using someone else's money with the intention of returning it. Finally, disposable income for the purpose of the study was defined as the cash available after all expenses have been paid.

The relationship between financial education, financial literacy and financial behaviour was also discussed. From the discussion, it is evident that a distinction can be made between financial education and financial behaviour; the former is 'process' by which a person acquires a better understanding of financial concepts and management methods whereas financial literacy was seen as a state of already acquired financial skills that can help an individual make better financial decisions. It was also found that financial education contributes to financial literacy and ultimately to good financial behaviour. In fact, it was found people who are more financially literate tend to take better financial decisions than those who are less financially literate.

A theoretical review of the influence of ethnicity, gender, age, credit card use and use of a budget on financial behaviour was presented. Ethnicity was found to play a role in how people manage their finances as significant differences can be seen across different ethnic groups. The use of a budget was found to be a good measure to avoid unnecessary expenses thus, influencing individuals' financial behaviour. Furthermore, various authors had various opinions regarding the effect of gender on financial behaviour. For example some found that they had similar spending behaviours, others found women to be more conservative and more risk averse than men while other researchers found men to be wiser and more resourceful in managing their finances. In addition, individuals were found to be more cautious in their spending and to save more as they grow older. Finally, the increasing accessibility of credit card to university students was found to be problematic as the proliferation of credit cards affects the level of borrowing of these students. Given this disparity in the literature, the following hypotheses were formulated thus achieving the second secondary objective of the study:

$H^{01:}$ There is no difference in the financial behaviour of commerce students based on their ethnicity.

$H^{a1:}$ There is a difference in the financial behaviour of commerce students based on their ethnicity.

$H^{02:}$ There is no difference in the financial behaviour of commerce students based on their use of a budget.

$H^{a2:}$ There is a difference in the financial behaviour of commerce students based on their use of a budget.

$H^{03:}$ There is no difference in the financial behaviour of commerce students based on their gender.

$H^{a3:}$ There is a difference in the financial behaviour of commerce students based on their gender.

$H^{04:}$ There is no difference in the financial behaviour of commerce students based on their use of credit cards.

$H^{a4:}$ There is a difference in the financial behaviour of commerce students based on their use of credit cards.

$H^{05:}$ There is no difference in the financial behaviour of commerce students based on their age.

$H^{a5:}$ There is a difference in the financial behaviour of commerce students based on their age.

Chapter Three focused on the research design and research methodologies that were selected for the study. The research methods, data analysis and data collection tools used in the study were discussed. A positivistic paradigm and quantitative research approach and were adopted for this study. A self-administered questionnaire was used to collect the relevant data for the study. The questionnaire divided into two sections: namely section A and B. Section A contained information requesting demographic and general information of the sample. In section B, respondents were required to specify whether they use debt, credit or disposable income to purchase or participate in certain financial activities using a nominal scale.

The sample of the study was commerce students of Nelson Mandela University registered in 2018. Snowball sampling along with convenient sampling were used to reach the sample of the study. A total of 500 questionnaires were thus distributed. 460 questionnaires were returned and 400 questionnaires were deemed useable. The rest of the questionnaires (60) were either unusable or deleted due to missing information or values. The response rate was therefore 92 percent and the effective response rate 80 percent. Chi-Square test was adopted as a method of measuring statistical significance and Cramer's V statistic was used to test the practical significance of the results. The reliability and validity of the results of the study was ensured by adopting face/content validity as well as inter-rater reliability tests. On the completion of chapter three, the third secondary objective of the study was thus achieved.

In Chapter Four, the empirical results of the study were presented and thus achieving the fourth secondary objective of the study. Firstly, the descriptive statistics of the study were summarised. There were more males (52.50%) than females (47.50%) and the majority of the respondents were black students (54.75%) while White (22.75%), Coloured (14.50%), Indian (2.75%) and Asian (3.25%) students made up the remainder of the sample. The 20-29 years age group was the largest in the study (79%). The majority of the respondents indicated they did not have a credit card (73.75%) and the remainder (28.03%) said they use credit cards to make payments of some sort. A slight majority (54.75%) of the students indicated they made use of a budget compared to those who do not have a budget.

Secondly, the inferential statistics were presented and the financial behaviour of the students was examined in light of the five aforementioned factors. To establish whether statistically significant differences exist in the financial behaviour of the students based on their ethnicity, gender, age, credit card use and use of a budget, Chi square statistic was calculated and the practical significance of the results was tested using Cramer's V statistics. In order to ensure the reliability and validity of the results, face/content validity as well as inter-rater reliability tests were conducted.

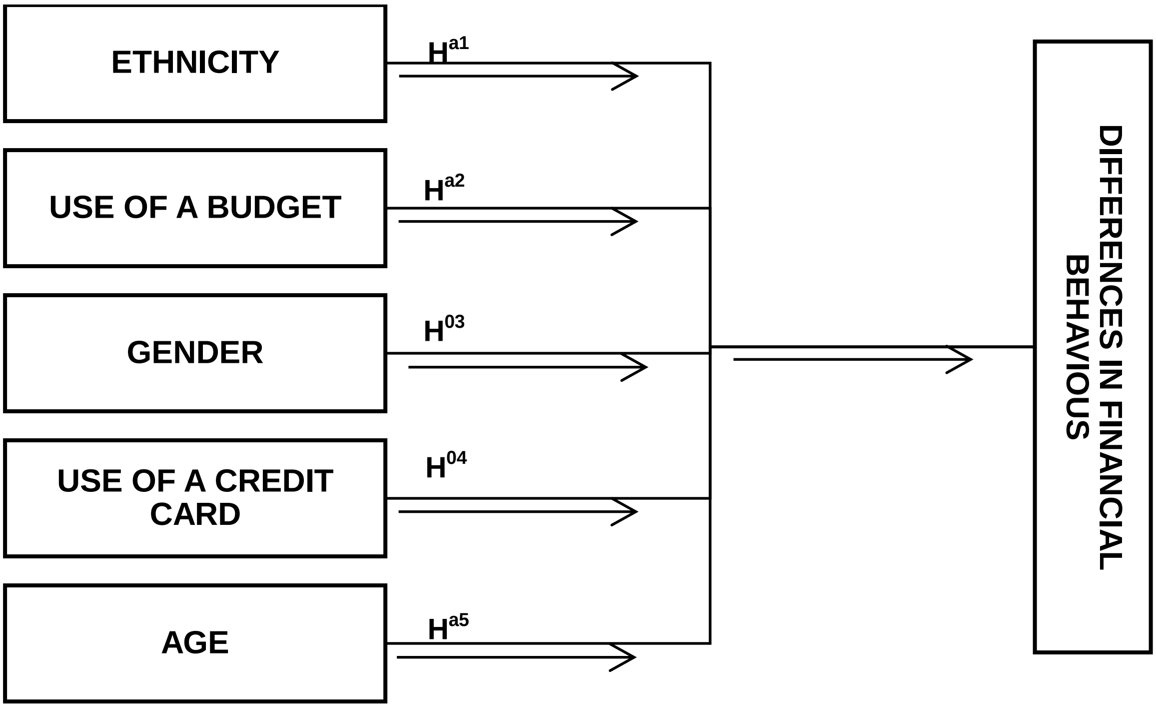
The key findings of these tests are summarised and interpreted in the paragraphs below.

5.3 INTERPRETATION OF EMPIRICAL RESULTS

The sections below provide a summary and interpretation of the main findings of this study. These results include the comparisons of students' financial behaviours based on identified demographic factors namely gender, age, ethnicity, use of credit cards and use of a budget. Figure 5.1 provides a summary of the relationships between the selected demographic variables and financial behaviour.

FIGURE 5.1

SUMMARY OF RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND FINANCIAL BEHAVIOUR



Source: Researcher's own construction.

5.3.1 FINDINGS BASED ON ETHNICITY

For all ethnic groups involved in the study, differences were found between the financial behaviour of the respondents. The differences were found to be statistically significant and of small practical significance. This implies that there is a relationship between ethnicity and the financial behaviour of Nelson Mandela University commerce students, though this may only have a small real effect on how students manage their finances. These results seem to be in line with the literature which indicates that ethnicity has an influence on financial behaviour (Lee and Hanna, 2015; Rha, Montalto, and Hanna, 2006).

$H^{a1:}$ There is a difference in the financial behaviour of commerce students based on their ethnicity.

Out of the 400 respondents, 219 were Black, making up the majority of the sample. Among the Black respondents, 12.17 percent indicated they borrow, 62.84 percent said they use disposable cash and 24.99 percent saved to participate in their various daily activities. These numbers were very similar to the results obtained from the White respondents as 12.38 percent indicated they borrow, 65.97 percent indicated they use disposable cash and 21.66 percent save to participate in the same activities. As far as borrowing and saving are concerned, these results seem to be inconsistent with the literature which indicates that Black households are less likely to save and more likely be indebted than White households (Oliver and Shapiro, 2006; Charles, Roscigno and Torres 2007). In fact, from the results, the Black respondents are found, although only slightly, to save even more than the White respondents (24.99% > 21.66%) and no differences can be found in the borrowing behaviour of both groups (12.17% and 12.38%).

Overall, respondents from all ethnic groups obtained different but closely related results, at the exception of Coloured respondents. 24.62 percent of Coloured respondents indicated they borrow to participate in their daily activities as opposed to a total average of 14.12 percent. They also use less disposable cash (55.65%) and save less (19.73%) than respondents from all other ethnic groups. This could indicate that Coloured respondents live well above their financial means as supported by the high level of borrowing. The literature identified this as a criterion of bad financial behaviour. The low percentage of saving is predictable and can be expected from individuals who live above their financial means as they have little to no money left for savings. The results also suggest that the Coloured respondents do not have a positive attitude towards savings as the respondents from other ethnic groups.

5.3.2 FINDINGS BASED ON THE USE OF A BUDGET

Differences were found in the financial behaviour of respondents who make use of a budget and those who do not. After analysis, these differences were found to be statistically significant but not practically significant. In other words, there is a relationship between the financial behaviour of Nelson Mandela University commerce students and whether or not they make us of a budget.

H$^{a2:}$ There is a difference in the financial behaviour of commerce students based on their use of a budget.

The empirical results show that 219 respondents indicated they use a budget which makes up 54.75 percent of the sample. Contrarily to what the literature concludes (Ranyard and Craig, 1995), there are no differences in the borrowing behaviour of those who use a budget and those who do not. This is interesting as the logical assumption would be to expect individuals who use a budget to be able to avoid finding themselves in the need to borrow money. This may suggest that the students who use a budget do not follow it strictly and end up in the same financial situation as those who do not use a budget. It is also found that respondents who use a budget save more than those who do not and they also indicate they use less disposable cash in order to participate in their daily activities. This seems to confirm the literature in that that the more students budget, the more likely they are to save and to reduce unnecessary expenses. Budgeting in this case thus acts as a good financial measure for the students. It also important to note that the differences mentioned are small and therefore, they do not have a real effect on the students' financial behaviour as proven by the results of the Cramer's V statistics (V= 0.08). This may confirm the hypothesis that even though some students use a budget, they may not follow it strictly as they end up having similar financial behaviour as those who do not use a budget.

5.3.3 FINDINGS BASED ON GENDER

When only considering the gender factor, the empirical results indicate that there are no differences in the financial behaviour of the respondents. The results from the Chi-square statistics are not statistically significant. There is therefore no relationship between the financial behaviour of Nelson Mandela University commerce students and their gender.

H03: There is no difference in the financial behaviour of commerce students based on their gender.

These results seem to deviate from the literature. Firstly, no differences are found in the way male respondents and female respondents save. This appears to contradict the findings that suggest that men are more conservative and wise when it comes to how they use their money (Loibl and Hira, 2006; O’Neill, 2003). It also suggests that male and female students have similar attitudes towards saving. Secondly, the results indicate that there are no differences in the spending behaviour of males and females. This suggests that male and females students spend the same proportions of their income even though they may spend it on different types of products or activities. Finally, no differences were found in the borrowing behaviour of the male and female respondents. This also appears to contradict the literature which concludes that women are more likely to have higher levels of debt than men (Davis and Lea, 1995:665).

6.3.4 FINDINGS BASED ON THE USE OF CREDIT CARDS

When considering the use of credit cards factor only, the empirical results indicate that they are no differences in the financial behaviour of the respondents. The results from the Chi-square statistics are not statistically significant. In other words, the use of a credit card does not determine the financial behaviour of the students.

H04: There is no difference in the financial behaviour of commerce students based on their use of credit cards.

The results also appear to contradict the literature, especially when it comes to the borrowing behaviour of those who use a credit card (Hearth *et al.*, 2006:74). In fact, no significant differences were found in the borrowing behaviour of the students who use a credit card and those who do not. The literature provided that the misinformation of the consumers about poor credit cards use is responsible for their over-indebtedness (Swart, 2012:80). The results could therefore suggest that the respondents who use credit cards are well informed since their borrowing behaviour is not different from those who do not use credit cards. Considering that the respondents are commerce students, it can be assumed that their financial education has played a role in the way they use their credit cards. Furthermore, no significant differences are found in the saving behaviour and use of disposable cash of the respondents.

6.3.5 FINDINGS BASED ON AGE

When considering the age factor only, the empirical results indicate that there are differences in the financial behaviour of the respondents. The differences were found to be statistically significant and of small practical significance. This implies that there is a relationship between the financial behaviour of Nelson Mandela University commerce students and their age, though this may only have small real effect on how the students manage their finances. Overall, the results are in line with the literature in the sense that they prove there is a relationship between both variables age and financial behaviour however some inconsistencies arise when considering the effect of the relationship on each of the components of financial behaviour.

$H^{a5:}$ There is a difference in the financial behaviour of commerce students based on their age.

The first observation that can be made from the results is that as the respondents get older, their level of borrowing tend to decrease. This may indicate that as the students get older, they become more aware and conscious of debt. However, this is inconsistent with the literature which concludes that as students grow older, they become more tolerant of debt and therefore they borrow more (Norvilitis *et al.*, 2006:1399). A possible explanation for that may come from the fact that the respondents are commerce students. In fact, it can be assumed that as the students grow older, they get further into their studies and therefore they get a better understanding of finance. This is likely to improve the way they approach debt and their attitude towards it.

The results also show differences in the saving behaviour as well as use of disposable income of the respondents of the various age groups. For instance, at the exception of the 50-59 age group, the average level of savings seems to increase as respondents get older. This may result from the fact that as students grow older, they have more responsibilities and therefore they have stronger incentives to plan and manage their finances better. This also explains the aforementioned decreasing level of borrowing. Due to the multiple irregularities of the differences, it can be suggested that other factors that have not been accounted for by the chi-square test may also play a role in determining the financial behaviour of the students, especially their use of disposable income.

5.4 IMPLICATIONS AND RECOMMENDATIONS

This study has implications for role players in the tertiary education system as well as government authorities. In addition to a discussion of the implications of the research, several recommendations will be put forward. In doing so, the fifth and final secondary objective will be achieved.

The results of the study show that the financial behaviour of commerce students is determined by various factors which vary in their effect. Although some of the results were found to be aligned with already known information from the literature, others were found to contradict the literature. Thus, it is evident that the knowledge and understanding of financial behaviour that is available in the literature is limited. It is also important to note that no differences were found to have a substantial practical significance. In other words, although factors such as ethnicity, budget, credit card usage and age were found to influence the financial behaviour of the students, these influences are unlikely to have a considerable real effect on how commerce students manage their finances.

The findings imply that factors such as gender, ethnicity and age which lie outside of the realm of control of the students have little effect on how they manage their finances. This is important as it suggests that the Nelson Mandela University commerce students have a greater autonomy and responsibility in the way they manage their finances. As a result, strategies and policies designed to improve the financial behaviour of these students are likely to have a greater impact on the way they manage their finances.

Although the relationship between ethnicity and financial behaviour was found to only have a small practical significance, the results obtained from the Coloured respondents were particularly alarming especially when considering their high level of borrowing. This example of living above one's financial means can prove damaging for one's financial health. Considering the materialistic and consumerist culture in South Africa, It is important for educational institutions to be able to create and foster a saving culture within their various institutions. It is recommended that university programmes that emphasize the values of savings and teach how to save and how to spend cautiously be used to influence not only Coloured commerce students but students of all ethnicities. As students often respond to trends, a good use of well-designed marketing campaigns at universities aimed at making savings more attractive to students can help achieve these objectives effectively.

The results also appear to indicate that the younger the students are, the more they borrow. Considering younger students presumably have lower income and fewer responsibilities than older students, it is worthy to note this unexpected outcome. As the primary people responsible for the education of young people are their parents, it is incumbent unto them to inculcate good financial habits to their children. Unfortunately, it is the poor financial behaviour of the South African consumers, and consequently the parents of these students that they learn. This is why authorities and financial institutions have to intervene in order to rectify the situation. If the parents display good financial behaviours, they are likely to impart these onto their children. It is recommended that under the supervision of the government, financial institutions make it one of their responsibilities to teach consumers how to improve their financial behaviour. Special advice can be given to bank accounts owners and basic information about savings and its importance can be given to anyone who's opening a bank account.

It was also found that there is a relationship between the use of a budget and the financial behaviour of the commerce students. It was concluded that since the effect of the relationship was small the students may not follow their budget strictly. Therefore, it is important for universities to provide financial education on budgeting and the different devices and methods that can be used by students to improve the effectiveness of their use of a budget. Financial and banking institutions must also teach students as well as consumers in general about the different types of financial products methods which can help them to budget better.

Finally, in an attempt to help improve the financial behaviour of students in Nelson Mandela University and students in general, it is also recommended that more financial education programmes be introduced. The introduction of financial education programmes in universities can assist students in improving their spending habits and borrowing habits. These programmes should have real practical value and information given to the students must be information they will be able to apply in their everyday lives. For these programmes, universities could invite wealth and bank managers or similar specialists to come and give workshops and lectures on personal financial management. These lectures and workshops could assist students who find it difficult to save or those who cannot budget effectively. Students who are staying alone for the first time or those who come from backgrounds or families that do not save or spend money carelessly, could be taught the basics of saving, how much to allocate to certain activities and how to effectively spend their stipends.

5.5 LIMITATIONS OF THE STUDY AND AREAS FOR FUTURE RESEARCH

As with any study of this nature, several limitations can be highlighted. The current study limits itself to only Nelson Mandela University commerce students. These students were identified by means of convenience sampling and snowball sampling and were sourced only from one university. Considering there are 26 public universities, the study may intrinsically contain biases. Therefore, because of the sampling methods used in the study, these findings cannot be generalised to the entire commerce student population. In future studies, the sample group could be expanded to include students from other universities in South Africa. In this way, comparisons can be made as to gain more insights on how commerce students manage their finances and the factors that influence their financial behaviour.

The study only focused on commerce students because of their assumed financial education. This was necessary to isolate the financial literacy factor since all the respondents would have had similar understanding of finances. In further studies, the sample group could also be expanded to non-commerce students. This could allow researchers to make comparisons and to understand how much of the financial behaviour of commerce students can be attributed to their financial education. This will further help role players in the tertiary education system as well as government authorities to assess the effectiveness of the financial education that is dispensed to the students and to improve it where necessary.

Furthermore, only five factors or variables (ethnicity, budget, gender, credit card usage and age) were selected for this study. The factors were identified from the literature and by observations of the researchers. The study however reveals that none of the factors have a consequential influence on the financial behaviour of the students. This suggests that other factors which were not accounted for in this study have greater influence on how commerce students manage their finances. Further studies could focus on identifying these factors and establishing how much they explain the financial behaviour of the students. Areas that may be looked at are the psychological attributes of the students.

Finally, although three researchers, guided by the literature, analysed and interpreted the results obtained by the statistical tests, interpretations were subjective and therefore the conclusions which were derived from them contain an element of bias. In future studies, researchers could possibly work in two groups of two and interpret the results independently and compare their conclusions. This will allow them to only retain similar conclusions and thereby reinforcing the reliability of the conclusions.

5.6 CONCLUDING REMARKS

This study investigated the financial behaviour of the Nelson Mandela University bachelor of commerce students and examined if differences exist based on five demographic factors. Among these factors, ethnicity, use of a budget as well as age were found to be related to the financial behaviour of the students. Although the results only revealed a small practical significance, they demonstrate that financial behaviour is a complex construct which may be influenced by many more factors yet to be discovered. It is hoped that the findings of this study have added value to the relevant bodies of knowledge and can be used in future studies as a tool to address and improve the problem of poor financial behaviour in South Africa. Furthermore, it is hoped that recommendations made in this study will serve the Nelson Mandela University as well as other relevant institutions in empowering students and creating a better future for them.

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