

Research Project

The impact of socialisation factors on financial literacy and financial security amongst employees in the financial services industry.

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Abstract

This study seeks to understand the financial socialising agents which play a role in the South African context, in addition to the role and influence of family financial socialising and financial socialising by agents such as friends, peers, formal financial education and multimedia. If there is a clear understanding of how financial socialisation takes place and what informs financial behaviours, government and business can focus their efforts to ensure that South Africans have an increased financial capability. This will improve financial literacy and lead to increased financial security which is a necessity for overall wellness.

A hypothetical model (Figure 2) was created from concepts that emerged during the literature review. An online questionnaire was completed by 300 participants in the financial services sector, examining factors which influenced the financial literacy and financial security of individuals. Principal Component Analysis was used to identify the components while Chi-square tests and Spearman's Rho was used to analyse the data for associations.

Different factors influence financial literacy and financial security. This study did not find parents to be a significant influencer of financial socialising. Peers, friends and work colleagues were also not found to be a significant influencer of financial literacy and had a negative influence on financial security. Certain components of multimedia such as reading books were found to influence an individual's level of financial literacy and education, including formal financial education influenced the level of financial security. Demographic factors such as race and income also influence financial literacy and security.

Keywords

Financial literacy, financial security, financial socialising factors

Declaration

I declare that this research project is my own work. It is submitted in partial fulfillment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Name: N. Sallie

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Signature:

Dedication

This thesis is dedicated to my late father, Mr Faried Sallie, for always believing that I could do so much more and for instilling the confidence in me to be more than I ever believed possible.

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Thank you to my dearest daughters, Rizaan and Nazreen Kara, for giving me the time and space that I needed to get through these past two years. Your endless love, encouragement and belief that I could do this, has meant the world to me. I only hope that I will be there for you one day when you embark on this journey.

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Chapter 1: Introduction

“Just as it was not possible to live in an industrialised society without print literacy—the ability to read and write, so it is not possible to live in today’s world without being financially literate... Financial literacy is an essential tool for anyone who wants to be able to succeed in today’s society, make sound financial decisions, and—ultimately—be a good citizen” (Lusardi, 2011, p. 2).

Financial decision-making is a critical part of everyday life, from minor decisions, such as deciding whether or not to buy a new dress, to major decisions such as taking a home loan. Making sound financial decisions requires an individual to have not only the necessary financial knowledge, but the confidence and skills to apply that knowledge. This is reiterated by many authors in trying to define what financial literacy actually is. The dominant paradigm with regard to financial literacy is that financial literacy develops primarily through socialisation within the family. In South Africa, this is questionable as family structures are fragmented, the necessary role models are not in place and education levels are low. Accordingly, fresh research is required to contribute to the body of knowledge to help explain, more accurately, the dynamics associated with socialisation that result in financial literacy, financial security and ultimately, financial wellbeing in a developing country such as South Africa.

It is this study’s contention that due to the generational differences in South Africa and the impact of apartheid, the parent’s role in financial socialising has been marginalised to the provision of literacy and basic numeric skills. Due to the low literacy and numeracy levels of parents in many cases, this task has also been relinquished to the formal education system. Financial literacy and ultimately financial security is however influenced less by family socialisation and more by multimedia and financial education that an individual is exposed to throughout their life cycle.

1.1 Knowledge gap

Studies commissioned by the Financial Services Board in South Africa over the last three years have focused on the levels of financial literacy and not what factors have influenced the outcome. A fourth study was undertaken in 2014, wherein it was acknowledged that:

“South Africa is a highly heterogeneous country characterised by extreme inequalities in economic accumulation and educational attainment, and any study of financial literacy must be cognisant of these disparities. In addition, the country is characterised by an intense multiculturalism and is home to distinct and diverse ethno-cultural communities, a diversity that may have an impact on financial knowledge and capacity” (Roberts, Struwig and Gordon, 2014, p. 2).

Research into what influences financial behaviour or financial literacy in South Africans could not be found- this is the knowledge gap that this study attempts to address. If the factors that influence financial behaviour, which ultimately lead to financial security and financial wellness, were better understood, policy makers could direct efforts to influence behaviour more effectively. Furthermore, this could lead to a greater understanding of the influences on behaviour of the South African citizen in other spheres. This could inform the influences on behaviour toward health, employment, job performance, retirement and interpersonal relationships.

1.2 What is financial literacy and why is it important?

The term financial literacy has proved to be a conundrum for researchers over the years. Little consensus exists in literature as to the exact definition of financial literacy. Remund (2010) analysed the various ways in which financial literacy has been interpreted over a decade and established that a conceptual definition speaking to skills, knowledge and ability were accepted by financial literacy officials. Researchers however used varying definitions and measurements for financial literacy making comparisons impractical. Most definitions extend financial literacy beyond financial knowledge and include behavioural components. Atkinson and Messy (2011) define financial literacy as an amalgamation of skills, knowledge and behaviours that are required to make beneficial financial decisions. Without a sound foundation of financial literacy it is extremely difficult for individuals to develop a sense of financial security or financial wellness. Lack of financial literacy affects individuals, households, consumer markets and the economy as a whole.

1.3 Benefits to society

Financial literacy provides benefits to society by increasing financial inclusion. It increases the awareness by society of financial issues while financial security raises the overall standard of living of communities. With a better understanding of financial markets, societies can hold governments accountable for financial policies and contribute to policy formulation.

1.3.1 Social inequality and poverty

Social inequality and poverty are more prevalent than earlier periods in history; not only are societies more unequal but the gap between different strata in society is widening. South Africa's Gini coefficient was 0.65 in 2011, which reflects the high levels of inequality in the country (Statistics South Africa, 2014). 45.5% of South Africans were said to be living below the poverty line in 2011. 10.2 million people are not in a position to purchase sufficient food in order to provide an adequate diet. Increasing financial literacy increases the expected lifetime utility obtained from consumption. This is because better-informed consumers are equipped to make better decisions.

South Africa's National Development Plan (NDP) aims to address inequality and poverty in the country by 2030. The program aims to decrease unemployment from 25% to 6% in 2030 (National Planning Commission, 2013). With an increase in income earning individuals the ability to manage money becomes crucial. Without this ability many people will be trapped in a poverty cycle with expenses exceeding income. Providing more jobs does not reduce the gap or provide financial security. Many South Africans do not have the skills, knowledge or ability to understand or manage financial transactions effectively. Without this ability, financial well-being and overall well-being is unattainable.

1.3.2 Financial inclusion

Greater knowledge and understanding of financial markets allows members of society the opportunity to partake in the financial system. By being financially literate, people can evaluate various products on the market and in this way encourage better product quality and suitability by the providers of financial products. A better informed public are able to critique products and providers in the financial sector and hold the sector accountable. Financial security allows for higher levels of saving and investment, increasing the ability

of people to uplift communities. People in communities are more likely to share knowledge, allowing for the penetration of financial knowledge within the community.

1.4 Benefits to the economy

1.4.1. Increase in investment

There is a direct link between the savings rate and the economic growth rate of a country; countries with more than 6% GDP have all reported savings rates greater than 20%. Finweek (2015) reports that the last 20 years has seen a deterioration of domestic savings in South Africa from over 20% as a percentage of GDP in the 60's, to as low as 13.2% in 2012. Other developing countries reflect higher savings rates which have a significant impact at the macroeconomic level. Countries such as China, Russia, India and Brazil reflect savings rates of 42%, 28%, 25% and 17% respectively (Finweek, 2015). The complexity of the financial environment and the low levels of financial literacy compounds the savings dilemma.

1.4.2 Self-funding of retirement

Retirement planning results from increased financial literacy. The burden placed on the state due to inadequate retirement savings has forced the South African treasury to look at innovative ways to encourage savings. In 2015, a tax incentive to encourage savings was introduced by National Treasury. In addition, plans are underway for a retirement reform program in order to assist citizens to be better prepared for retirement and to alleviate the fiscal burden on the state. These interventions will only succeed in ensuring financial wellness if they are coupled with a program to change financial behaviour.

1.4.3 Increase in self sufficiency

Social grants are paid by the South African treasury in order to protect the poorest against poverty. 16.4 million Beneficiaries received social assistance payments in 2014. In order to accommodate the growing number of people unable to support themselves, the 2015 budget has made provision for an additional R7.1 billion for social assistance payments (Nene, 2015). It is paramount that the beneficiaries of these grants are in a position to manage the little that they receive in order to escape the poverty trap. Making the correct financial decisions is crucial to low income earners whose resources are already scarce

and stretched. Increasing financial literacy will result in a decline of the state's burden to continually provide financial aid.

1.4.4 Consumer rights and regulation

By understanding financial concepts and implications, decisions on the best and most suitable products can be made. This will alleviate regulators from ensuring that consumers are not taken advantage of by unscrupulous financial institutions. The burden of educating consumers on basic financial terms and implications of decisions will be less onerous for financial service providers. It is likely that consumers lack the knowledge and experience to be aware of their rights as consumers of financial products, placing them in a disadvantaged position and susceptible to abuse and fraud.

South Africa's Financial Sector Charter requires financial institutions to contribute a minimum of 0.2% of net operating profits to consumer education annually (Financial Sector Charter, 2013). Most programs take the form of training courses or short workshops. Other delivery channels include printed material, multi-media (DVDs, CDs, radio or television broadcast, etc.), websites, road shows and theatre performances, and the provision of advisory services. The effectiveness of financial wellness programs could be increased if the mode of absorption, resulting in the highest impact, could be identified and implemented.

1.5 Benefits to the individual

1.5.1 Debt levels

Increased debt levels coupled with lower savings rates has trapped South Africans in a credit spiral (Nene, 2015). Increased financial literacy will result in a reduction of the number of loan defaults as well as an increased spending power of consumers. Managing scarce household resources effectively and efficiently is a skill that will empower South African citizens, making them independent and able to take advantage of economic opportunities. This will have a direct impact on consumer behaviour. Better informed consumers will make saving and borrowing decisions more effectively. Treasury has highlighted excessive household indebtedness as a serious challenge and threat to our economic success.

Approximately 45 per cent of credit-active consumers were found to have compromised credit records (Nene, 2015). The Transunion Consumer Credit index has reflected a deterioration in South Africa's consumer credit market over 2013 and 2014 (Finweek, 2014). There has been an increase in the use of credit to supplement household budgets. Household debt levels at 78% of disposable income (Finweek, 2015), is an indication of household borrowing behaviour resulting from consumer inflation and a weakening economic environment. This indicates a limited understanding of the cost of credit by consumers which may reflect low financial literacy and the fact that relatively few consumers use credit effectively.

1.5.2 Increased savings

Savings can reduce the consumer's vulnerability to economic shocks and unexpected events. More disposable income results in more money to spend, save and invest. Financial literacy allows one to plan spending, budgets and to understand the implications of spending more than one earns. Having excess funds provides opportunity for consumers to be selective in consumer choices and provides a level of bargaining power. Realising financial goals at the lowest possible cost is an outcome of having the requisite financial literacy knowledge and translating that into effective behaviour.

1.5.3 Utility and well-being

Financial literacy and financial security results in a better quality of life. Financial security leads to financial well-being which is necessary for overall well-being. Financial well-being includes increase in wealth, manageable debt and home ownership, improved credit ratings resulting in access to lower cost of credit and peace of mind for a comfortable retirement. Financial literacy and security provides for an enhanced confidence level to respond capably to life events and to thrive in a modern financial society.

1.5.4 Health

The connection between wealth and health also has important consequences. The most likely reason for poorer communities suffering more physical and mental health issues is frequently regarded to be a stress factor. Financial stress is also regarded as the primary reason why poorer people's health is adversely affected. Financial problems lead to an increase in financial stress and a general unhappiness with people's current financial

situation. It is evident that finance-related stress and unhappiness are related to each other and are predicted by the degree of one's financial afflictions (Lapp, 2010). Furthermore financial distress also causes depression, increase in marital problems, low self-esteem as well as lower productivity in the workplace.

Improving financial behaviour will result in a reduction in the level of poverty and improved overall well-being. Similarly Cole, Paulson and Shastry (2012) perceive that financial problems affect people's personal, family and work lives, cause personal stress and precipitate marital problems. They find that there is a significant association between financial problems and stress related illnesses. The South African Depression and Anxiety Groups (SADAG) Cassey Chambers reported in Health 24 that an increasing number of calls are received from men who suffer from depression or stress, often due to financial issues (SAPA, 2011). In South Africa's present economic environment, chronic and acute stress due to financial distress, are critical considerations more frequently seen in suicidal behaviour. Debt and financial issues amongst employees result in a loss of motivation, poor work attendance and declining performance at work. Absenteeism in South Africa could be costing the economy R12 billion per year. Statistics show that as much as 4.5% of a company's workforce is not at work due to illness on a given day. It is stated that this number can reach as high as 18% (Lilford, 2015).

1.6 South African historical influence

26.2 % of South African population live on less than \$2 a day and are in conditions of extreme poverty (World Bank, 2015). This makes the modelling of good financial behaviour and providing for a practicing environment an unenviable task.

South Africans have a disadvantage in that many parents have had little schooling and have had limited access to the financial system. The implication is that transference of knowledge and financial ability through explicit or implicit teaching in the home is not always feasible. In 2012, 18.7% of young children in South Africa, younger than five years old, lived with neither of their parents (Statistics South Africa, 2013). This is not due to the parents being deceased but rather due to fact that a large proportion of South African children are not raised by their biological parents. Hall, Meintjes and Sambu (2009) explains that it is due to poverty, labour migration, educational opportunities or cultural

practices that biological parents do not live in the same home as their children. Most children are raised by a family member. The level of education in homes where the parents are present is low. Only 29.3% of the mothers had actually completed grade 12 and 31.8% of the fathers who were living in the same home had completed Grade 12 (Statistics South Africa, 2013).

Due to the exclusion of many from the education and the financial system, basic knowledge and understanding of financial concepts is not present. Parents therefore find it difficult to transfer knowledge which is not readily available to their children. These homes are thus reliant on external sources of socialisation to assist their children. In order to effect change and help people to achieve financial security and financial wellness, it is necessary to understand the influences of financial behaviour and to impact these in a positive way.

1.7 Conclusion

Financial literacy is important for financial security and thus for overall well-being. Financial literacy is vital because it benefits consumers, societies and the economy. Financial literacy is imperative to society as it influences levels of poverty and inequality. Financial literacy assists with financial inclusion and thus affects the economy. It results in an increase in investment and a decrease in the dependence on the state. It provides for a better-educated consumer who is less likely to be taken advantage of. This reduces the burden on regulators to regulate products and services and to ensure that consumer rights are protected, thereby reducing the cost of legislation and monitoring. Being financially literate also challenges the financial services sector to provide higher quality products at better costs.

Financial literacy benefits consumers by increasing self-efficacy. Higher savings levels and better debt management result in increased availability of funds. This provides for better tolerance of economic shocks and emergency financial situations. Increased levels of health and reduced levels of stress result from financial security. Both financial literacy and financial security lead to realising financial goals and lifetime utility.

Due to the importance and impact of financial literacy and financial security, understanding what influences it and how we can increase its prevalence is paramount. This study

contends that numeracy and a degree of financial attitude may be formed in the parental home. The extent depends largely on the level of education, financial status and abilities of the parents. However, financial knowledge and financial competencies, which are required for financial literacy and financial security, are less influenced in the home. These are largely influenced by extraneous factors such as peer influence, formal financial education and exposure to multimedia.

Chapter 2: Literature review

There appears to be varying views as to what causes financial socialisation. This study seeks to understand which financial socialising agents play a role in the South African context and seeks to understand the role and influence of family financial socialising and its limitations versus financial socialising by other agents such as friends, peers, formal financial education and multimedia. If there is a clear understanding of how financial socialisation takes place and what informs financial behaviours, government and business can focus their efforts to ensure that South Africans have an increased financial capability. This will increase financial literacy and lead to increased financial security, which is a necessity for overall wellness.

Due to the increased complexity of financial decision making, knowledge and financial skills were found to be lacking of that required for the complexity of decisions consumers are faced with (Lusardi, Mitchell and Curto, 2010; Mottola, 2014). People are unprepared for the rapidly expanding financial markets and technologies in financial services (Sherraden and Grinstein–Weiss, 2015).

Financial literacy in the developing world is still a conundrum which influences the design and hence the effectiveness of financial literacy programs in developing countries. Holzmann (2010) pointed out that most of the financial literacy research to date has been undertaken within the environment of developed nations. Research in the financial literacy arena in Sub-Saharan African countries is particularly underrepresented. Gudmunson and Danes (2011) propose that research has been concentrated on the socio-demographic differences in financial knowledge, behaviour, and well-being, but little consideration has been given to understanding what has caused these differences.

2.1 Financial security

The second level of Maslow's hierarchy (Maslow, 1943) is characterized by the need to be free of danger, fear, and unpredictability, be it physical or psychological. According to Xiao and Noring (1994) financial need can be split into physiological needs and security needs, where immediate consumption can be regarded as a lower-level, physiological need and financial need related to future transacting (consumption) can be regarded as a higher-level, security need. Howell, Kurai and Tam (2013) regard financial security as the

perception that an individual has that should financial circumstances change in the future (e.g., losing a job) that individual will be able to meet both basic needs as well as future needs based on that individuals current economic situation. Changes in financial status over one's lifetime influences feelings of security and can be an important contributing factor of overall well-being (Moghaddam, 2008; Howell, Kurai and Tam, 2013). Financial security, as explained by Austen, Jefferson and Ong, (2014), can be shown by the buildup of material wealth or as the ability to obtain and sustain a particular standard of living throughout a life cycle.

2.2 Financial well-being

The state of being happy, healthy and free from worry is regarded as ones state of well-being. Financial wellness is effectively the level of a person's financial health. According to Joo (2008) financial wellness is a multi-faceted concept which includes overall satisfaction with one's financial situation, the measurable features of one's financial position, financial attitudes, and financial behaviour. Financial security is a pre requisite for overall well-being. An understanding is required of what factors influence financial security in order to influence well-being. The purpose of this study is to investigate the factors that have an influence on financial security, which ultimately affects well-being.

Financial wellness has far-reaching effects throughout the lifetime of an individual. It results in individuals who are adequately prepared for retirement (Van Rooij, Lusardi and Alessie, 2012; Lusardi and Mitchell, 2011). Increased levels of savings and investment (Van Rooij, Lusardi and Alessie, 2012), and better management of one's debt (Huston, 2012; Lusardi and Tufano, 2009) are all consequences of financial wellness. The seeds of positive financial behaviour are sown early on in life and the economic impacts of financial illiteracy are evident in the detrimental economic conditions adults find themselves in (Van Campenhout, 2015). A low level of financial literacy tends to persist throughout adolescents to adulthood. Despite interventions by government, business and regulators, illiteracy persists. Financial skills and knowledge obtained earlier on in life tends to have lasting effects on wealth accumulation and responsible financial behaviour later on in life (Van Campenhout, 2015).

2.3 What is financial literacy

Danes and Haberman (2007, p. 49) define financial literacy as “the ability to interpret, communicate, compute, develop independent judgments, and take actions resulting from those processes in order to thrive in our complex financial world”. Finmark Trust (2005) regards financial literacy not as a skill that can be acquired in a once off training program, but a process that starts with basic education and develops over time as the individual’s level of understanding improves. Financial Literacy is thus seen as a process that evolves over a period of time and not a once off event.

2.4 Socialisation

Definitions of socialisation have evolved over time to be inclusive and not limited to children. Hayta (2008) regarded socialisation as a dynamic process in which the individual adapts to the environment by continuously learning and changing attitudes, norms and values. Danes (1994) also suggested that financial socialisation is a process in which the individual acquires and develops values, attitudes, standards, norms, knowledge and behaviours that contribute to the financial capability and individual wellbeing. Kim, LaTaillade and Kim (2011) view financial socialisation as the development of financial knowledge, beliefs, behaviours and norms by individuals that will affect their future financial behaviour.

2.5 Financial literacy in South Africa

Struwig, Roberts and Gordon (2013) used four constructs to arrive at a financial literacy score for South Africa. These constructs were financial control, financial planning, product choice and financial knowledge. While the report acknowledged that respondents with higher financial literacy were those with tertiary education, the wealthy, full time employed and residents in urban areas, the report does not venture into why this is so.

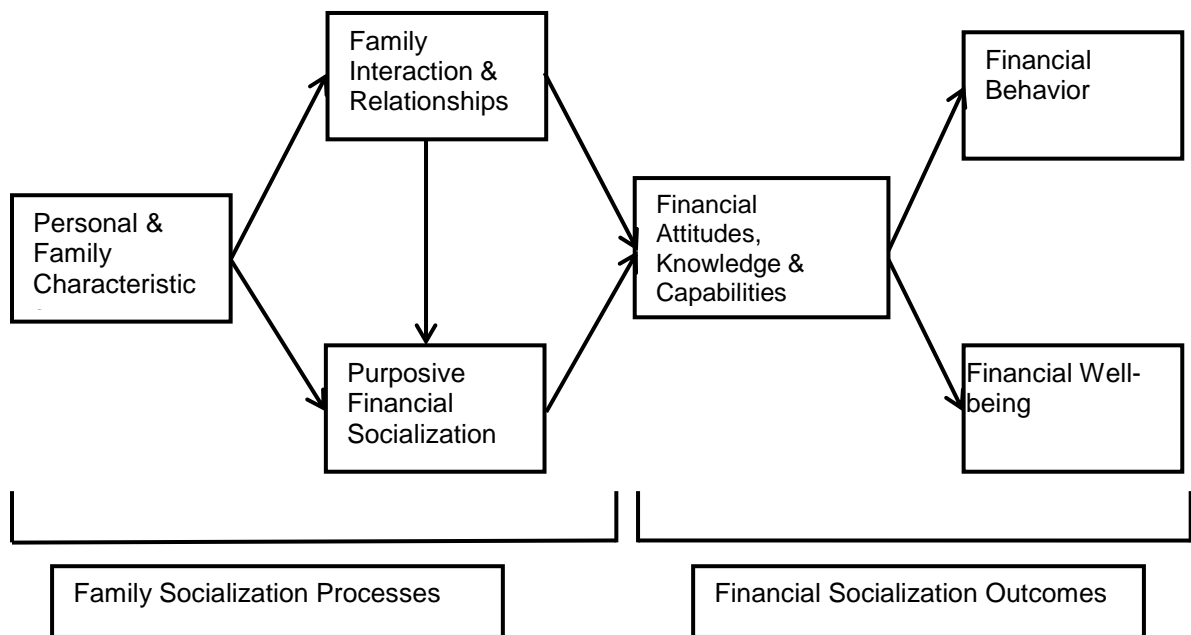
Atkinson and Messy (2011, p. 4) definition of financial literacy was used in the study, which defines financial literacy as “a combination of awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial wellbeing”. The authors have acknowledged that there is little consensus in literature on the definition of financial literacy. While the authors arrived at a financial literacy score for South Africa using the above constructs, the study does not delve into

why the respondents behave in the manner that they do or why the financial behaviours have formed as they have.

2.6 Family socialisation

Gudmunson and Danes (2011) contend that the primary financial socialiser is the family unit. To this end, Gudmunson and Danes (2011) propose the following family financial socialising model;

Figure 1 Family financial socialising Model



The authors regard the family as a gatekeeper of information and as the foundation for future financial socialisation throughout the individual's life. Parents are regarded as the most influential of family socialisation agents. However, the quality of the interpersonal relationship in the family plays a key role in the success of financial socialising. Grusec (2011) provided five reasons as to why they believe that parents are primary in socialisation:

- (1) parents are genetically wired to have children and to take care of the needs of their children;
- (2) parents protect and nurture children and assist in developing a sense of belonging;
- (3) all societies have strong cultural expectations that parents are to be the primary

- socialisers of children;
- (4) due to the living arrangements of parents and their children, an expectation is that parents will help establish good social behaviour in children; and
 - (5) parents are responsible for the financial and physical resources that are required to ensure their children's wellbeing.

Shim, Serido, Tang and Card (2015) caution that while it does seem true that parents exert the most powerful influence in the lives of children, and that parents should probably assume the greatest responsibility when it comes to teaching their children about money matters, this does not guarantee that the best practices will be inculcated. Due to the complexity of family relationships, Gudmunson and Danes (2011) include constructs such as family interpersonal communication, quality of relationships and parenting style over and above the personal and familial characteristics.

However Sherraden (2013) points out that the absence of financial knowledge on the parent's side could result in teaching financial behaviour that is in fact detrimental to the child. Children of lower income households thus have fewer opportunities for financial socialisation (if one considers the above model by Gudmunson and Danes, 2011) due to inadequate modeling from parents as result of reduced participation by the parents in the financial system or simply due to insufficient knowledge themselves. In addition, parental socialisation reduces, as a teenager becomes older (De Goede, Branje and Meeus, 2009) and makes way for other socialisation agents.

Gudmunson and Danes (2011) acknowledge that the family socialisation model is not a complete picture of financial socialisation and that other agents come into play over the individual's life cycle. Shim, Serido, Bosch and Tang (2013) and Tang, Baker and Peter (2015) also reiterate the importance of parental influence in financial decision making. Shim, Barber, Card, Xiao and Serido (2010) found that parents, work and high school education were predictors for adolescent's financial behaviours. The role and education level of the mother specifically was found to be most pertinent (Lusardi, Mitchell and Curto, 2010).

Contrary to Lusardi et al. (2010), Clarke, Heaton, Israelsen and Eggett (2005) cite fathers as the more dominant financial role model in households. Agnew and Cameron-Agnew

(2015) agree that it is mainly the male parent (father) that discusses financial issues with their children in the family home. Although it was established that adolescents felt more prepared and inclined to practice financial tasks when these are modeled by the mother in a household. Clarke et al. (2005) regard the inclusion of the entire family in financial tasks within a household to be of even greater impact. Knowledge of successful parental socialisation mechanisms can be used to develop appropriate interventions for increasing positive financial behaviours (Kim, LaTaillade and Kim, 2011).

With over four million child headed households in South Africa and the legacy of apartheid, transference and observational learning of financial roles become implausible. 26.2 % of South African population live on less than two dollars a day and are in conditions of extreme poverty (World Bank, 2015) This makes the modeling of good financial behaviour and providing for a practicing environment an unenviable task. As much as parents would want to emulate good financial behaviour and practices, the situation they find themselves in often makes it impossible. Clarke et al. (2005) acknowledge the need for further research to comprehend where and how financial roles are transferred to young adults to ensure that they can operate effectively in an economically challenging environment.

2.6.1 Passive and active learning

Jorgensen and Savla (2010) found that most of the financial socialisation that takes place in the family has resulted from implicit financial training, where the daily family interaction and contextualised awareness is observed. Gudmunson and Danes (2011) agreed that implicit socialisation is more common than explicit family socialisation. Clarke, Heaton, Israelsen and Eggett (2005) recognize that the financial challenges and decisions facing young adults may demand skills and attitudes that are far too complex to be modeled in the home. According to Clarke et al. (2005), children firstly model the behaviour that they see and are taught at home.

Solheim, Zuicker and Levchenko (2011) identified three socialisation pathways:

- A positive pathway – the observance of positive parental behaviour,
- A negative pathway – the observance of the lack of financial management by parents and its consequences and the resolve to follow a different path. These children resist the tendency to repeat the parent's mistakes and undertake to create a different outcome for themselves,

- The experience of the latter where lack of financial management by parents and its consequences is observed, may however result in exactly the same result, i.e. following the negative behaviour of the parent, the authors cite this as the third possible pathway.

Serido, Shim, Mishra and Tang (2010) established that financial interactions between parents and children assist in the development of the child's financial coping behaviours. Parental expectations were found to have an even stronger association with financial coping behaviours. Serido et al. (2010) further contend that as children enter the adolescent phase of development is the appropriate time for children to receive financial guidance and communication in order to have maximum benefit. Engaging in responsible financial behaviour relates to increased well-being and reduced levels of stress. The authors also highlight just-in-time discussions on financial topics and the importance of educating parents on the influence of financial discussions and expectations regarding financial management on emerging adults. The paramount importance of the inclusion of parents by financial management educators is further emphasised by the authors.

Financial socialisation continues into adulthood, progressing with changing adult roles and as the availability of financial resources change (Dew and Price, 2011). Shim and Serido (2011) acknowledged the changing roles of parents at different stages of child development from parental role to a more peer role involvement at adult stage. Parental molding of financial skills and high parental financial education resulted in lower levels of debt (Grinstein-Weiss, Spader, Yeo, Taylor and Freeze, 2011; Norvilitis and MacLean, 2010). Gudmunson and Danes (2011) postulated that parents function as role models in financial socialisation and implicit learning through observation results in greater financial literacy and capability.

2.6.2 Other family members

Interestingly Clarke et al. (2005) also place importance on the responsibility of the older siblings, who emulate the adult role and function when both parents are employed. This was also expressed by Brenner (1998) who found that older siblings greatly influenced the spending and savings culture of the younger sibling. Solheim, Zucker and Levchenko (2011) regarded older siblings as influential role models, particularly where these had part time jobs and received an income of some sort. In addition, grandparents were also

considered influential in coaching, modeling and rule setting around savings, allowances and gifts. However, authors agree that not enough has been done to fully appreciate the distinctive socialising role of family in inspiring financial literacy (Jorgensen and Savla, 2010).

Financial socialisation, which is critical in stage two of development of learning as contemplated by Drever, Odders-White, Kalish, Else-Quest, Hoagland and Nelms (2015), takes place during the middle school period. Here children's financial behaviour is modeled by what they observe, predominantly from parents and other adults. It is suggested that active financial engagement will increase the comprehension and absorption of behaviours in this stage.

2.6.3 Values and Attitudes

Sohn, Joo, Grable, Lee and Kim (2012) offer that values and attitudes are a requirement that is missing from formal financial education programs, and as these are parental influenced, the attitudinal component required for effective financial security must be influenced within the confines of the parental home. Jorgensen and Savla (2010) also highlight the environmental influences such as values, attitudes and subjective norms, but again contend that parents have a substantial influence on these.

Shim et al. (2010) cited parents as being the largest contributor to the financial attitudes and behaviour of adolescents. The role of parents in regulating the child's resolve, using the family values, beliefs and knowledge as a basis was found to be pivotal. Clarke et al. (2005) advised that it is at the early age of three that most children understand the concept of money as an exchange item and start to express financial desires from parents, which will inform future behaviour. The development of the mental, societal and linguistic abilities which takes place at the age of five or six, has been linked to a child's propensity to save and to use savings accounts (Friedline, 2015).

However, Brenner (1998) found in a study in Hawaii of preschoolers, that parents did not place teaching their children about money in high regard. The children also placed greater emphasis and trust in what the teacher taught. It is thus evident that a key part of financial education should include parental training and understanding that children model what they see and that the family home is where a good deal of the initial information is

observed. It is therefore fitting that Van Campenhout (2015) recommends that financial literacy programs should be designed together with parental involvement. However, the programs should reflect a strong attitudinal component that enables young adults to build an element of self-confidence to make financial decisions in a constantly changing environment.

Jorgensen and Savla (2010) point out the importance of family financial attitudes in the development of the same attitudes in children. Demonstrating how the financial behaviour of the youth is as a result of variables such as knowledge, attitudes and personal characteristics which are molded by environmental stimuli.

Drever et al. (2015) proposed a hierarchical approach by establishing three instrumental stages at which development and learning are optimal. Developing of mental processes necessary for planning, organising and concentration are instrumental for stage one. This is done through repetition and practice and is the grasslands where the foundations of future financial well-being are formed. Drever et al. (2015) further propose that it is here that concepts such as delayed gratification, future orientation and the ability to set goals are comprehended. Having these basics bedded down assists in the development of adult financial well-being later on. The external environment, particularly parents are seen to play a major role in this phase of development.

2.6.4 Parental relationships

Kim, LaTaillade and Kim (2011) looked at parental warmth, parental financial monitoring and parent-child relations about finances to explain cognitive and behavioural aspects of adolescent financial behaviours. It was found that warmth increases the receptiveness of the child to parental socialisation. Socialising practices such as providing warmth and comfort, exerting behavioural control, monitoring of children's behaviours, communicating and teaching children can all be associated with outcomes of financial literacy and financial competence. Loving and warm, good quality relationships between parents and children where parents spend time with children, or have open communication are more likely to result in a child sharing the parents' financial values (Kim et al., 2011). Parent child communication and dialogue about finances are considered a key enabler of financial literacy. Constrained family relationships do not result in financial behaviours that are conducive to improved financial well-being (Gudmunson and Danes, 2011).

Solheim, Zuicker and Levchenko (2011) found that learning from parental coaching and guidance and being encouraged and supported by the parents with constant communication on effects of savings and open conversations on money matters provided the motivation for students to manage money better. Rules around money were viewed by many as a positive ‘behaviour building’ mechanism, however many students did not understand the teachings from the rules and the observance of behaviour by the parental model in contradiction to the rule led to confusion and mistrust. Conversations with parents also increased the likelihood of learning about money management.

Families in which money matters were openly discussed had positive effects. Students who had a perceived lack of financial resources noted that financial conversations were avoided in the family as it was considered a stressor of family relations. The money-conflict stress association observed in childhood remains a deterrent to open financial conversations in adulthood. For many, money matters were considered taboo and something not discussed even amongst family members. Parents also viewed keeping financial matters from children as a “protection” and considered money to be an adult matter and not something to be discussed with children. Serido et al. (2010) also found that the most potent predictor of a child’s future financial wellbeing was the quality of interaction about financial matters between the parent and child.

2.7 Demographics

Lusardi (2015) identified that there is an association between financial literacy and gender, race, and education present at early stages of the life cycle. Both Xiao, Ford and Kim (2011) and Gudmunson and Danes (2011) questioned why variables such as gender, age, race, ethnicity, marital status, socioeconomic status, household size, and other socio-demographics are associated with financial outcomes. They acknowledge that there is a gap in the understanding of why personal and familial demographics are important financial outcome predictors. Serido et al. (2010) contend that social status, which is defined to include parental income and parental education, is an important factor in the establishment of financial behaviours as it provides the context for parent-child financial discussions and interactions.

Gender, age, race, education level, income earned, parents’ income, parents’ investment experience (whether parents had investment portfolio’s) and highest education

achievement of parents were found to be significant factors impacting financial knowledge (Fonseca, Mullen, Zamarro and Zissimopoulos, 2012; Monticone, 2010; Lusardi, Mitchell and Curto, 2010). Forte (2014) assessed the importance of considering sociocultural factors, such as race, gender, socioeconomic class, language, and age, in the financial education of adults. From this, she concluded that the context of the cultural and social environment cannot be excluded from any meaningful financial education intervention as culture and society influence how we learn and interpret the world. Lusardi (2015) reiterated that illiteracy is particularly prevalent amongst specific demographic groups such as women, those with low level of educational attainment as well as the young and old.

However, preventative financial coping behaviours, such as budgeting or tracking spending, were found to decline with an increase in parental social status. While the availability of financial resources decreases the financial stress, there is a lack of development of the financial competence in order to manage their own finances successfully in future. Increased parental financial communications was found to decrease the associated financial stress, i.e. a negative correlation existed with stress and parental communication on financial matters. Open communication regarding financial matters of emerging adults with parents encourages responsible financial coping behaviour which may reinforce financial competence in adulthood as well as add to self-sufficiency in adulthood (Serido et al., 2010).

2.7.1 Age

Grinstein-Weiss, Guo, Reinertson and Russell (2015b) concur that age influences the effectiveness of individual development programs. Crossan, Feslier and Hurnard (2011) for New Zealand, Fornero and Monticone (2011) for Italy, Klapper and Panos (2011) for Russia, and Lusardi and Mitchell (2011a) for the United States confirmed a relationship between age and financial literacy in that middle aged respondents were found to be more financially literate than older or younger respondents. However, the study by Brown and Graf (2013) found that younger respondents are not generally less financially literate than the rest of the population.

A consistent finding among financial education studies is that financial literacy reaches its highest point among adults who have reached middle age, and is significantly lower among the youth (Bruhn, Leão, Legovini, Marchetti and Zia, 2013). Financial literacy is

found to be very low at an advanced age says Lusardi (2015) which is why there is a prevalence of financial scams on the elderly.

2.7.2 Gender

Tang, Baker and Peter (2015) also found a gender variance in how the factors influence behaviour. Parental influence and financial knowledge was found to affect the financial behaviour of women whilst thoroughness was found to have a higher impact on men. Lusardi (2015) also found that females display lower levels of financial knowledge than males. This is relevant in the South African context, as gender differences play a big role in traditionally male dominated cultures. This gives insight into the different focus on socialising of women as compared to men. Lusardi and Mitchell (2011c) show that these gender differences are applicable across countries as well. Shim, Serido, Tang and Card (2015) found that due to young women having more conversations with their parents about money than young men, they are more strongly influenced by their parents. Agnew and Cameron-Agnew (2015) however argue that the content of these conversations are not the driving factor but rather when these conversations take place as males typically have their first financial discussion in the home at a younger age than females, resulting in higher scores of financial literacy amongst males.

2.7.3 Race

Lusardi (2015) revealed that varying racial groups also exhibited disparities in financial literacy. Whites displayed higher levels of financial literacy than African Americans and Hispanics. Race and ethnicity was also seen by Forte (2014) as playing a large role in the experiences students have as different races and ethnicities have different experiences with financial institutions, and different experiences with saving and financial responsibility to family members. Inconsistencies in financial literacy based on race and ethnicity was echoed by Lusardi, Mitchell and Curto (2010) who found that white respondents were more likely than black and Hispanic respondents to answer financial literacy questions correctly.

2.7.4 Income

Higher income provides higher levels of disposable income which can be utilised for investing and saving. Due to the increased role of women in raising families, recognizing that most women have lower income in careers as well as the fact that the life span of women are generally higher than that of males, focusing on increased parental involvement of parents with the female counterparts of the family could result in an increased impact in the financial behaviour pattern. Brown and Graf (2013) reaffirms that a significant gender and income gap exists in financial literacy as was stated by Bucher-Koenen and Lusardi (2011) and Almenberg and Säve-Söderbergh (2011).

2.8 Saving behaviour

Children who were encouraged to save continued this behaviour into adulthood (Kim, LaTaillade and Kim, 2011). Provision of an allowance was regarded as a mechanism of financial socialisation and assists in the development of monetary competence. Parental monitoring, which includes rules and expectations, is regarded as pivotal in the development of self-control and delayed gratification.

Drever et al. (2015) emphasises the significant contribution to financial behaviours through parental and other adult observation. Financial values such as the understanding of wants as opposed to needs as well as the benefits of delayed gratification should be part of discussions that parents are having with young adults. Providing access to resources at a young age in order to practice and enhance spending and saving behaviours, under guidance, are regarded as beneficial to building financial well-being. However, for a child not growing up in an affluent home, the concept of available resources is not a known entity as most households struggle to make ends meet. Lusardi, Mitchell and Curto (2010) also found that family wealth and family financial sophistication played a crucial role in financial literacy.

2.9 Self-efficacy

Drever et al. (2015), also recommend that through practice, the skills required for money management and goal setting together with self-efficacy, which is crucial for financial well-being, can be developed. The role of self-efficacy was also reaffirmed by Lapp (2010). Self-Efficacy is defined by Lapp (2010) as the perceived ability to manage finances.

In a longitudinal study of low-income participants over a year, Lapp (2010) hypothesised that self-efficacy provides the connection between knowledge and effective behaviour that has been missing in financial literacy research. In the participants he surveyed, financial self-efficacy increased as financial knowledge grew. However although financial knowledge increased, a decrease in financial difficulties was not apparent. Instead, results from the survey suggested that the manifestation of fewer financial difficulties among all of the respondents was as a result of increased self-efficacy. It would appear that increased knowledge merely drives self-confidence in managing financial matters, which results in more effective financial outcomes. In this study, participants were coached over a period of time and significant differences were found amongst participants who received more than one session of coaching. Coaching accelerated the acquiring of self-efficacy and it is the self-efficacy that improved financial behaviour. For knowledge to lead to a change in behaviour, Gudmunson and Danes (2011) also specified that self-efficacy is a pre requisite.

Mandell and Klein (2007, 2009) maintained that the participants motivation for taking financial education classes will influence the effectiveness of the learning and the resultant change of behaviour. This corresponded with Shim et al. (2015) research finding that students' own efforts to learn financial management also contributed to their attitude and healthy financial behaviours. This indicates that one's inner goal is an important element of development.

2.10 Cognitive ability

Sherraden (2010) and Sherraden, Johnson, Guo and Elliott (2011) explain that more than intellectual ability is required to develop financial behaviour. Social cognitive theory suggests that behaviour is performed only by understanding what that behaviour is and what process is required to be followed to display the behaviour, it also recognises that observational learning also advances behaviour. While it is accepted that financial knowledge alone cannot influence financial behaviour but needs social and psychological influences to be an effective behaviour transformer (Tang, Baker and Peter, 2015). Numerous studies have noted a strong association between knowledge and behaviour (Lusardi and Mitchell 2011; Robb and Woodyard, 2011). Babiartz and Robb (2014) indicate

that subjective knowledge might be a more effective determinant of financial behaviour than objective knowledge.

Robb and Woodyard (2011) highlighted strong correlations between both objective and subjective financial knowledge and overall financial behaviour, indicating that engaging in responsible financial behaviours (including possession of an emergency savings account) was positively associated with financial knowledge. Babiarz and Robb (2014) identify confidence is an important part of subjective behaviour, knowledge, and echo that confident consumers are more likely to take action. Babiarz and Robb (2014) suggested that existing financial education initiatives tend to focus on technical aspects of personal finance and ignore positive psychological reinforcement which could play an important role in promoting positive behaviours. The view that attitudes, knowledge, and capabilities tend to best determine subjective financial wellbeing while behaviours are likely to be stronger determinant of objective well-being was shared by Gudmunson and Danes (2011).

Tang, Baker and Peter (2015) argue that financial knowledge is influenced by social factors (parental influence) as well as by psychological factors and cognitive influences (intellectual capabilities) of the individuals. Tang et al. (2015) espouse the view that cognitive ability does not provide a strong impetus for changes in financial behaviour. This parallels the research done by Gudmunson and Danes (2011), wherein the characteristics of the individual that are influenced by social and psychological influences impact financial behaviour more than parental influence.

This is however contradictory to Lusardi, Mitchell and Curto's (2010) research, which revealed that cognitive ability was influential in financial literacy, those with higher intellectual ability exhibited a higher level of financial knowledge much earlier on in life. In the study by Tang, Baker and Peter (2015) psychological factors such as self-discipline and thoroughness were investigated and a weak relationship between the level of financial knowledge, cognitive influences and responsible financial behaviours was evident. However, social and psychological factors were found to have a greater influence on financial behaviour. Specifically the role of parents and self-discipline was found to have a profound impact on young adult financial behaviour. Having appropriate knowledge does not always result in appropriate behavior as the influence of social and emotional forces sometimes result in irrational behaviour.

2.11 Education Programs

Increasing financial knowledge is not the goal itself, the eventual objective of financial literacy programs should be to alter and have a positive bearing on financial behaviour (Willis, 2009). Contesting misconceptions and flawed ideas about money may be a required component of any financial education initiative (Gudmunson and Danes, 2011). However, financial knowledge on its own is not the only influence of financial behaviour (Borden, Lee, Serido and Collins, 2008; Mandell and Klein, 2009; Peng, Bartholomae, Fox and Cravener, 2007). Tustin (2010) acknowledges that the measurement of actual impact on behavioural changes of financial literacy programs in South Africa has been missing. He also concedes that it is internationally not known if observed changes in behaviour are permanent or temporary. Drever et al. (2015) also recommend that practice of financial tasks cannot be underestimated and that schools should be encouraged to provide exercises and computer simulations around financial concepts to entrench behaviour. Shim et al. (2015) confirm that schools and teachers are also important socialisation agents for children and cannot be ignored.

Early financial education not only allows for teachers to form behaviour but also to correct misconceptions about finances that may be modeled in the parental home. A gradual approach in teaching concepts and financial attitudes will have an impact on financial behaviour (OECD, 2014a). Early and gradual financial education is seen to have the highest impact on future behaviour (McCormick, 2009; Friedline, 2015; OECD 2014a). Robb and Woodyard (2011) and Lusardi and Mitchell (2007) established a positive correlation between financial knowledge and financial behaviour. Hathaway and Khatiwada (2008) cautioned that there is little confirmation that financial education and counseling affect behavior. Willis (2008, 2009) also asserted that the success of financial education initiatives has not been proved and was not sufficiently supported by research.

As the measure of success of financial education programs were not the gain in knowledge itself, but rather the change in behaviour, it made the actual effectiveness of programs difficult to gauge (Collins and O'Rourke, 2010). Cole, Sampson and Zia (2011) acknowledge that there has been a momentous effort to educate the public on financial matters through various financial literacy programs, but contend that rigorous evidence on their effectiveness remains scarce. Mandell and Klein (2009) found no differences in the financial behaviours of those emerging adults who took a personal financial management

course in high school and those who did not. Huston (2010) purported that financial literacy provides the human capital to engage in appropriate behaviour but cannot ensure that this occurs. Thus financial literacy does not automatically lead to optimal financial behaviour.

2.11.1 Role of parents in education programs

Bruhn, Leão, Legovini, Marchetti and Zia (2013) conducted an experimental design program in Brazil over a period of 18 months. Their research included interactive exercises and role playing assignments as well as case studies with real live scenarios that the students could relate to. Bruhn et al. (2013) found that an increase in communication on financial matters with parents was reported that also resulted in an increase in the financial literacy of the parents. Shim et al. (2015) propose the possibility of a bi-directional parent-child influence. Benefits of including the entire household in the program as well as the inclusion of parental workshops running alongside the youth program yield even more benefit.

Extending the education programs in a Brazil study to include parents resulted in an increase in the financial literacy of the parents as well (Bruhn et al., 2013). Fostering increased financial discussions in the home and participation in drawing up a budget resulted in increased savings and propensity to work according to a budget in the families involved. However getting parents to participate in these programs proved to be challenging. Parents are regarded as the indispensable socialisation agent and their involvement in financial education programs will increase the success rate of the programs to alter financial behaviour.

2.11.2 Approaches to financial education

Bruhn et al. (2013) revealed that financial education initiatives can be a successful mechanism for improving financial behaviour if presented in a comprehensive format and over a period of time. Tustin (2010) assessed the impact of a financial literacy program run by ABSA Group Limited called Bubomi in the rural setting of Giyani in South Africa. By using a control group, Tustin (2010) tested the impact of the program on financial knowledge, confidence and financial attitudes of the participants. What Tustin's (2010) study revealed was that the program motivated participants to learn more regarding

financial constructs. The results reflected that participants showed an improvement in debt management, shopping behaviour as well as financial planning. The success of the ABSA Bubomi program appears to be the storyboard format and the simulation of responsible financial behaviour by using role play and community based examples that could easily be identified with by the participants (Tustin, 2010).

It is further evident that lifetime exposure to reinforce previous learning is required and that program efforts have to be customised to take into account participants prior learning, financial attitudes and needs as well as the environment in which the participants find themselves. Maurer and Lee (2011) established that partaking in college level personal finance classes is associated with better financial knowledge. Providing financial education to college students have taken the form of one-on-one peer counselling, short online courses, semester long elective classes and content included in orientation programs. However there is little consensus as to the effectiveness of the programs and which could be considered the most effective.

Kezar (2010) suggests that efforts to increase financial literacy can only be effective if included in a formal curriculum. Collins and O'Rourke (2010) contend that face-to-face delivery techniques are not necessarily more effective than other styles, and that effectiveness of financial education is heightened as they meet a person's unique needs over a period of time. Grinstein-Weiss, Guo, Reinertson and Russell (2015) find that the amount of financial education makes the difference for participants in an individual development program.

Financial skill building happens in the third stage in Drever, Odders-White, Kalish, Else-Quest, Hoagland and Nelms (2015) phased approach; it is experienced-based, practical education programs that are envisaged to have the most impact. Youth financial literacy programs differ in focus from adult financial literacy programs. The latter tends to focus on immediate financial difficulties and is essentially reactive in nature. Young adult financial literacy programs should be proactive and prepare for future financial decision-making (McCormick, 2009; Shim et al., 2013). It should thus alter the long-term behavioural component of the individual.

Multimedia and online courses were found to be less productive than one-on-one learning methods and other teaching techniques in finance courses (Lai, Kwan, Kadir, Abdullah and Yap, 2009). In these circumstances limited financial knowledge cannot be replaced by a practicing environment (Campbell, Jackson, Madrian and Tufano, 2010).

2.11.3 One size fits all

For McCormick (2009), the main concern is that financial programs are designed on a one size fits all basis and are not customised to suite the target audience, thus making them largely ineffective. Financial education programs also lack effectiveness when they are not customised to fit a target group.

Van Campenhout (2015) proposed that generic programs are less effective than tailored programs that consider psychological, social and economic factors. Walstad, Rebeck and MacDonald (2010) agree with others that financial education tends to be more effective when it is targeted to the specific needs and desires of the audience. The authors attribute the success of the intervention due to the quality, intensity and scale of the program. Forte (2014) further acknowledged that when knowledge is in the framed reference of the students' daily life, they are personally meaningful and learning's are easily absorbed.

Brown and Graf's (2013) findings indicate that it is not just the youth that should be included in financial literacy programs, despite not having a clear indication of which group should be targeted. Brown and Graf (2013) indicate that low income and less educated populations should be included in the targeted group.

2.12 Peer and colleague influence

On investigating the actual causes of financial behaviour, Lusardi, Mitchell and Curto (2010) conducted research on young adults and found that peers and colleagues also informed the individual's behaviour and attitude toward financial decisions. According to social learning theory, people learn best from others they see as similar to themselves (Goetz, Durband, Halley and Davis, 2011). Therefore using peer educators with similar characteristics as the learners may have maximum impact. Peer educators can also serve as role models, having had similar experiences to overcome as those they are trying to teach.

Due to the cost and time investment required for universities to institute a formal financial education program, alternative methods including peer counseling are investigated by Maurer and Lee (2011). Short informal financial education sessions are held by undergraduate students to teach basic financial literacy concepts. The short courses are more cost and time effective. Maurer and Lee (2011) contend that a student's motivation for attending a peer counseling session may be due to a need that presently exists, which could make the peer counseling method even more effective. An increase in the level of knowledge was reported by students who took part in a peer counseling initiative (Borden et al., 2008). A strong intention to engage in effective financial behaviours following the financial counseling session and more responsible attitudes towards credit was also observed.

Maurer and Lee (2011) revealed that there was little difference in the improvement of financial literacy after peer financial counseling sessions as compared to semester long courses. A possible explanation for the effectiveness of the personal financial counseling could be the informal setting in which the counseling takes place or the fact that the counselor is of similar age and developmental stage and can use practical scenarios that students can relate to. The students were probably more comfortable to ask questions in a peer setting than in a lecture setting. As peer financial counseling sessions are voluntary and at the students request, the motivation to increase financial knowledge be it specific to a problem at hand, is driven by the student.

Shim et al. (2010) provide a hierarchical model in which financial learning outcomes are impacted not solely by parents and school but by early life work experience. Gutter, Garrison, and Copur (2010) found a positive association between financial behaviour and the frequency of social learning with friends but still regard parental influence as strong. Shim et al. (2015) remark that peers, especially close friends, serve as additional socialising agents in the development process. Friends are known to influence adolescent's behaviours in both positive as well as negative outcomes (Garrison and Gutter, 2010; Gutter et al., 2010).

2.13 Multimedia

Berk (2009) regards the technological sophistication of this generation as so pronounced, that digital could easily be regarded as their native language. The vernacular of computers, video games and the internet are in full use through tools of the digital age; ipods, smart phones, pc's and tablets. Berk (2009) found that a combination of auditory multimedia and visual inducements increase memory, comprehension, understanding and deeper learning than either one on its own. Learning by audio and visual was found to be more effective than learning by audio only. Technology has enabled students to master complex tasks that can be extended to classroom exercises. Real world applications are necessary in order to see the relevance of what is being taught.

Baker, Matulich and Papp (2011) established that the 'net generation' (those born in the 80's and 90's) share distinctive learning styles and behaviours. They prefer to learn at their own pace and in an on-line environment and prefer any time any place learning rather than the traditional classroom learning. They experience the world through multimedia and not through print. Information is processed differently from their parents, lecturers and older people as their brains have developed to respond to such stimulation and processes because of copious exposure to multimedia. Baker, Matulich and Papp (2011) also found that students like using simulations and role playing scenarios and have a preference for realistic real world projects and tasks.

Sohn, Joo, Grable, Lee and Kim (2012) tested various financial socialising agents including parents, peers, school and media and concluded that only media had a significant relationship with financial literacy while parents played a lesser role in financial socialising. Media could offer valuable experimental learning platforms (Luukkanen and Uusitalo, 2014). Building scenarios of financial decisions and possible outcomes through product simulations helps gain financial knowledge in a safe environment. This view is supported by Flanagan and Metzger (2008) who advise that young people's familiarity with digital media could be leveraged when teaching topics connected to financial capability. By using existing digital technologies it is possible to transform educational practices (Take, 2009). With increased usage of mobile technology in financial services, transacting on a financial basis has become faster and simpler, however it also adds to the complexity of the financial environment.

Walstad et al. (2010) researched the effects of a DVD-based curriculum for high school students on financial knowledge – Financing Your Future- covering topics such as saving, money management, banking, credit and debt, and investing, with up to six hours of digital instruction. A significant gain in financial knowledge was observed by students who participated in the education program, as measured by pre-test and post-test scores, compared to students in a control group. However the permanence of the behaviour change is unknown as they did not study subsequent behaviour change.

2.14 Conclusion

Shim and Serido (2011) found that the parental influence on financial behaviour and financial literacy were 1.5 times more than that of financial education and more than double that of friends. Education or counseling interventions may not hold the key to changing financial behaviour, as consumers may lack self-control and be predisposed to other biases (Collins and O'Rourke, 2010). McCormick (2009) concedes that the widely accepted belief that financial education programs are beneficial to participants is being challenged. The view that financial education programs improve financial literacy and in turn lead to more effective financial behaviours is being questioned. Studies of financial literacy by Lusardi and Mitchell (2007a, b) and Lusardi (2008) adopt a view that education should be a tool of improving financial behaviour rather than a goal in itself.

There is little consensus in the literature on what factors have the greatest influence on financial literacy and financial security. Research has been done in many developed countries and has included adolescents, college students as well as adults. The financial literacy score of South Africans has remained the same for the period from 2011 to 2013, however the financial knowledge domain has decreased by 4% over the last three years (Roberts, Struwig and Gordon, 2014). It is imperative to understand what factors are affecting financial literacy in order to understand how the levels can be influenced to ensure greater financial freedom and security for South African citizens.

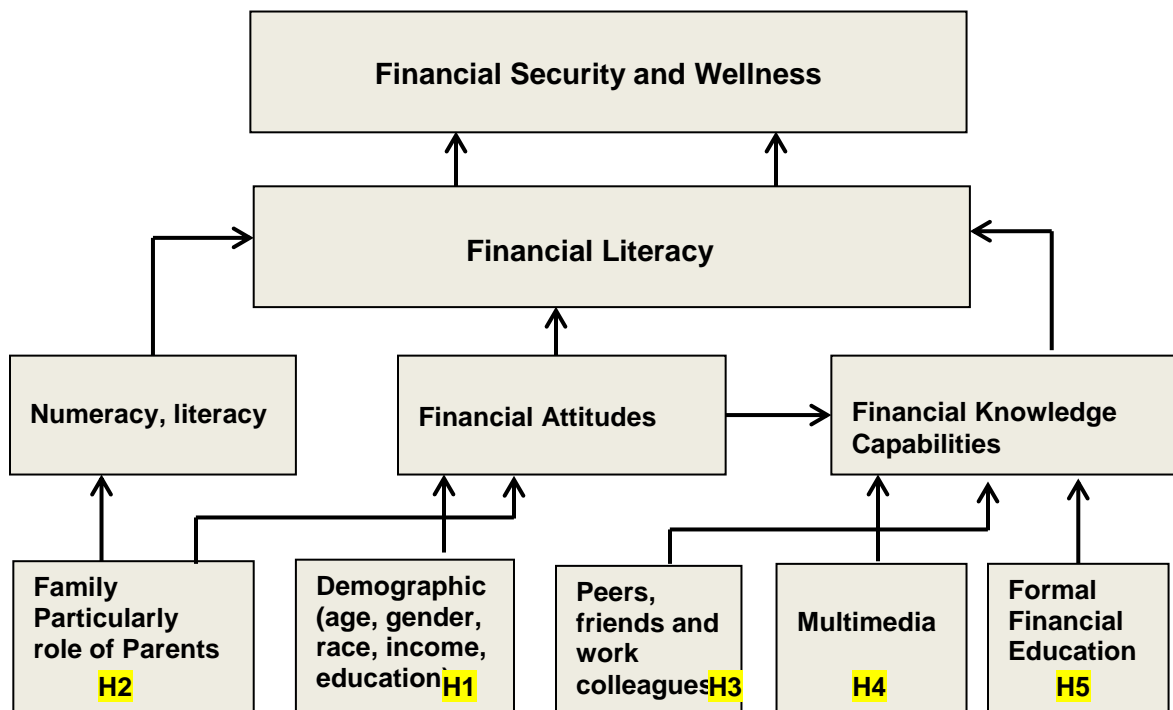
Chapter 3: Research Objective

Most of the research indicates that the primary site for financial socialisation is the family and in particular, the roles that mothers play are central to the model of financial literacy and financial wellbeing that is internalized by the individual. However, it is this studies contention that parents and schooling equip children with numeracy and literacy which does not provide the knowledge, skill or ability necessary for financial literacy. There has been a shift in the definition of financial literacy to reflect an understanding of financial tools available and access to such tools, whereas financial wellness refers largely to the individual's sense of freedom of choice and satisfaction. Families are less likely to be the primary source of financial socialisation and financial socialisation is increasingly informed by access and exposure to multimedia e.g. internet, television, electronic and print media.

Financial literacy is a prerequisite for financial security and wellness. Financial literacy is informed by numerical and literate abilities, financial attitudes, knowledge and capabilities. Financial literacy is required for financial security and ultimately wellness and it is proposed that it can be depicted as follows:

3.1 Proposed financial socialisation model

Figure 2



3.2 Hypothesis to be tested

Using the above-proposed model as a basis, the hypotheses to be tested, are highlighted as H1 to H5 in the diagram above and are as follows:

3.2.1 Hypothesis 1

Demographic factors such as age, gender, family size, race, income and education, are related to financial behaviour and impacts financial literacy and financial security.

3.2.2 Hypothesis 2

The primary source of financial socialisation for financial literacy and financial security is the family, particularly the role of parents

3.2.3 Hypothesis 3

The primary source of financial socialisation for financial literacy and financial security is friends, peers and work colleagues

3.2.4 Hypothesis 4

Access and exposure to multi-media influences financial behaviour and impacts financial literacy and financial security.

3.2.5 Hypothesis 5

Financial education impacts financial behaviour and thus impacts financial literacy and financial security.

Chapter 4: Methodology

4.1 Research design

A descriptive, quantitative approach was undertaken in this study. Newman (1998) defined a quantitative approach as one that is used when the starting point is a theory or hypothesis and when one tests for validation or contradiction of that hypothesis.

4.2 Survey methodology

Survey research methodology was used and a questionnaire developed to address the research questions posed. Sample surveys consist of systematic, standardized approaches to collecting data from individuals and households through the questioning of identified samples of individuals (Rossi, Wright and Anderson, 2013). For purposes of this research, an online questionnaire was used. The link to the questionnaire was e-mailed to 1200 respondents.

4.2.1 Advantages of an online survey

This allows for a faster distribution and turnaround time and adds efficiency by eliminating paper questionnaires and the resultant capturing of the responses in order to further analyse (Zikmund, Babin, Carr and Griffin, 2012). The probability of errors made whilst capturing the data is also eliminated by using an online technique. Online surveys also offer a convenience to the respondent as it could be completed at their own pace, in the home, at any point in time and allows the respondent the time to deliberate over responses. There is also a cost reduction from self-completion, as facilitators were not required to explain the survey questions. The respondents were provided with an enhanced sense of confidentiality as the survey was completed on an anonymous basis with no identification of the respondent required. Only one response per respondent was allowed and this was facilitated by restricting the survey to only one response per IP address. Saunders and Lewis (2012) also regard the standardisation of the questions as an advantage as it allows for comparing responses across different locations and time frames.

4.2.2 Disadvantages of an online survey

An equal understanding of the question posed could not be guaranteed which could have resulted in inconsistencies in responses due to the understanding by the respondent of the

questions posed. Bryman (2012) also cautioned that this method could result in ambiguity of questions, as there is no provision to seek clarity and can result in low response rates. Petchenik and Watermolen (2011) concur and estimate that the average online survey participation rate is 11%. People who have an interest in the topic being surveyed show a willingness to complete the survey and will probably respond to the online survey request, which may add bias to the results. When e-mails are blocked or discarded by the recipient through mail filtering, it removes them from the possibility of receiving a request to take part in an online survey which contributes to non-response bias in online surveys (Duda and Nobile, 2010).

4.3 Universe

The universe for this study included urban, working South African male and females who are in receipt of a monthly income and over the age of 18, working in the financial services sector.

4.4 Sample

A probability sampling technique was used. As it is not possible to identify all employees within the financial services sector in South Africa (Saunders and Lewis, 2012), individuals currently employed in one financial services company was included in the survey. Employees of the Liberty Life Group were used to obtain a sample. Using one company has the advantage of the organization culture being uniform; this means that the variation in result can be attributed more to the individual personalities, characteristics and history of the individual respondents than to the culture and work environment.

It was anticipated that the employees were literate and in a position to understand and complete the questionnaire. Financial services sector employers employ staff with a minimum qualification of a matric certificate. The employees were anticipated to be from diverse backgrounds and to represent all ethnic groups. As the financial services sector is responsible or involved in some way with dealing with other individual's money, it would be interesting to ascertain the levels of financial literacy of the employees and what factors influenced the levels of financial literacy. The sample included a group of financial advisors who have had exposure to financial education in order to assess the impact of formal financial education as a source of financial socialisation.

It should be noted that the researcher is a division manager within the Liberty Life Group that employs approximately 400 individuals, however, the wider staff compliment of the Gauteng branch of the Liberty Group was used as a sample.

4.5 Unit of analysis

The unit of analysis was individuals working in a financial services environment. One group that is known to have had financial education was included.

4.6 Sampling method and size

A stratified random sampling method was used. According to Saunders and Lewis (2012) a stratified method involves dividing the sampling frame into strata or layers such as the division within a company. All business units within the Liberty Group in the Gauteng region were identified. Systematic sampling was then used to identify respondents. Every second employee within the business unit address list was then chosen to partake in the survey. A sample of 1200 individuals was requested to complete the survey electronically. 10% of those requested were recorded as being financial advisors of the Liberty Group.

4.7 Measurement instrument

A survey questionnaire was used by Shim et al. (2010) in the study of first year college students. Shim et al. (2010) found that 85.7% of the respondents completed an online survey whilst the remaining 14.3% completed a pen and pencil version of the survey. The high response rate of online respondents indicates the level of comfort with technology applications of the target audience.

A self-administered questionnaire was used to gather data in order to test the hypothesis. Atkinson and Messy (2011) analysed the use of the OECD/INFE pilot questionnaire across 12 countries. The OECD assessed 26 financial literacy surveys across 18 countries to derive at a proposed standard questionnaire to be used globally (OECD, 2014). Common terms and content as well as best practice in terms of phrasing of questions was established and integrated into one survey. The above-mentioned survey was adjusted to accommodate the terminology within our environment as well as to include questions that were specifically related to the hypothesis being tested. Unrelated questions were removed in order not to make the completion of the survey cumbersome.

4.8 Pilot questionnaire

Saunders and Lewis (2012) defines a pilot test as a pretest which tests the questionnaire with a sub group of individuals who would likely form part of the sample group one intends to use in the study. A pretest of the questionnaire was conducted to ensure that the questions were easily understood and that ambiguity of the questions was removed. The pretest was administered to 10 participants within the broader sample, in an interview setting. Following the interaction with the 10 participants, the questionnaire was adjusted by rephrasing some questions, removing some questions and adjusting the order in which questions were asked. This resulted in the final questionnaire used. A sample of the pre-test questionnaire can be found under Annexure A.

4.9 Final questionnaire

The demographic questions were deliberately placed at the end of the questionnaire to allow the respondents to reflect on the questions first asked. As the survey does not test the level of financial literacy or financial security, the accepted definitions thereof in academia were provided on the questionnaire in order for the participant to evaluate their financial literacy and financial security. The questionnaire was divided into four parts;

4.9.1 Part one

Questions one to four, requested respondent to assess their financial position. While there is inherent risk in self- assessment, the purpose of the study was not to test the levels of literacy or security but rather to test the factors influencing it. Definitions of financial literacy and financial security were provided in order to assist the respondents in assessing their financial literacy and financial security.

4.9.2 Part two

Questions five to thirteen explored what factors have influenced the respondent's financial position. Question five and six questioned if parents have influenced financial decisions. Question seven requested the influence of grandparents, specifically due to the living arrangements of children in South Africa. Friends, peers and colleagues influence were tested under questions eight and nine. The influence of multimedia which encompassed the internet, advertisements, television and the reading of magazines and books were included under questions ten through thirteen.

4.9.3 Part three

Questions twenty one to twenty nine requested demographic and socio-demographic information. This included gender, race, age, income, education level, responsibility for daily money management, relationship status and number of people living in the household. Household sizes were grouped into a typical family size of one to four, as well as larger families which are typical in the South African environment of five to nine. Provision for extended households of anything above ten was also provided as an option.

4.9.4 Part four

Question thirty requested information pertaining to any formal financial education to which the respondent was exposed. A primary level of financial education was regarded as any training of less than six months, a secondary level equates to anything between six and twelve months and a tertiary level identified as anything above twelve months of training. Questions fourteen to twenty also enquired what the respondents view was on the impact of financial education and when it should be provided.

A four point Likert scale was used in the evaluation as the neutral response was deleted. The responses were ranked into disagree, strongly disagree, agree and strongly agree. Clason and Dormody (1994) supported the use of other variations of response alternatives of the five-point scale as used by Likert (1932), including the deletion of the neutral response. A sample of the final questionnaire is provided under Annexure B.

4.10 Data gathering process

The divisions falling under the liberty Group Gauteng branch was identified. The email addresses of all employees in those divisions were obtained from the global address book. Every second employee on the list within the divisions was identified. The link to the questionnaire was sent electronically to 1200 employees within those divisions in order for the questionnaire to be completed online. 301 respondents completed the survey questionnaire.

4.11 Data editing and coding

As the data collection stage concluded, the data was removed from the data collection tool and transformed into a format that could facilitate the processing on a statistical tool. The editing process removes invalid data and coding promotes the classifying of results in a format that simplifies data analysis (Zikmund et al., 2012). The data was edited and incomplete responses were excluded from the analysis. All answers in one response were blank and were thus eliminated from the data. The data was coded by assigning numerical values to the answer options. Four-point Likert scale answers that ranged from 'strongly disagree' to 'strongly agree' were coded from one to four respectively. Only four options were provided with no option for neither in order to avoid a neutral response.

For statistical analysis, certain questions were combined in order to address the hypothesis. For the demographic analysis, it was found that some cell sizes were too small in some places when the original response scale was used, for this reason; answers were recoded into "agree" and "disagree" for this construct.

Following principle component analysis, the following questions were linked to the hypothesis;

Hypothesis one: All the demographic questions were tested in order to ascertain if any significant relationship existed between the demographic variable, financial literacy and financial security.

Hypothesis two: Questions one, two and three relating to the fathers, mothers and grandparents influence was combined in order to do the analysis. Individual analysis was also performed.

Hypothesis three: Question eight and nine with regard to friends, peers and work colleagues were combined in order to address hypothesis three. Individual analysis was also performed.

Hypothesis four: Questions ten, eleven, twelve and thirteen were combined in order to address this hypothesis as well as analysis performed on the individual components.

Hypothesis five: This question related to formal financial education, question twenty nine, was used to test this hypothesis.

4.12 Statistical analysis

The statistical analysis was carried out with the help of the IBM SPSS statistics software (SPSS Inc., 2009).

4.12.1 Descriptive statistics

Descriptive statistics assists in describing the basic characteristics of a data set and presents the data in a comprehensible manner (Zikmund et al., 2012). A frequency table lists items together according to the number of times, or frequency, the items occurred. One also gets a sense from the frequency table of what the majority of respondents felt. Frequency tables were utilised to summarise the respondent's demographics. The demographic variables such as age, education, race, gender, family size and income are presented graphically to display the varying values associated with the choices made (Zikmund et al., 2012).

4.12.2 Correlations

4.12.2.1 Chi-square and cross tab

The relationship between the demographic variables, financial literacy and financial security were investigated by means of Pearson's chi-square. Pearson's chi-square test is used when trying to find a relationship between two nominal or ordinal variables (Field, 2013). A nominal variable is one that is only measured by naming categories such as class, quality or kind. An ordinal variable is similar to a nominal variable, but the categories can be put in an order (e.g., ranked highest to lowest).

To calculate chi-square, a cross-tabulation, which shows the frequencies of joint occurrences between two variables, is used. If the significance value reflected on the chi square is less than 0.05, then there is a significant relationship between the two variables being tested. As cell sizes were too small in some places when the original response scale was used, answers were recoded into "agree" and "disagree" for this construct.

The measure of strength of association, Phi and Cramer's V are used to measure the practical effect size (Field, 2013) as denoted in the table below:

Table 1

Magnitude of effect size	Phi/Cramer's V
Small	0.1
Medium	0.3
Large	0.5

4.12.2.2 Spearman's rank order correlation

One of the main purposes of the study was to investigate the relationship of financial literacy and financial security with the socialisation factors. Correlations designate the level of association or relationship of one variable to another, where the correlation coefficient describes the statistical measure of covariation between the variables (Zikmund et al., 2012). A Spearman's correlation is employed when attempting to determine associations between continuous variables, where a positive association is shown to exist if the correlation coefficient, r , equals +1 and -1 indicates a perfect inverse association (Zikmund et al., 2012). A Spearman's correlation coefficient (Spearman's rho) is a non-parametric statistic based on ranked data and therefore minimizes the effect of extreme scores (Field, 2013). Therefore this technique was used to assess the associations between financial literacy and financial security and the various socialising agents being tested, i.e. parents, friends and peers, multimedia and education.

Correlations between the financial literacy and financial security and the remainder of the variables were also tested. A Spearman's rank order correlation was performed between these variables, financial literacy and financial security. Two criteria were used to interpret the correlations. The first was statistical significance. Correlations were deemed to be statistically significant if $p < 0.05$. However, as the statistical significance of this value is largely influenced by sample size, Jacob Cohen suggested that a correlation of 0.5 is large, 0.3 is moderate, and 0.1 is small (Cohen, 2013). Thus, effect size was also used to interpret the correlations.

4.13 Data validity and reliability

A factor analysis was conducted. The Kaiser-Meyer-Olkin (KMO) value was 0.669 and Bartlett's test of sphericity was significant ($p < 0.01$). According to Kaiser (1970), a KMO

value of 0.60 to 0.69 could be regarded as “mediocre”. Thus although sampling adequacy can be marginally assumed, there may be some doubts about this aspect.

Although the Kaizer criterion (Eigenvalues larger than 1) indicated that eight factors could be extracted, a Parallel analysis using a Monte Carlo simulation indicated that five factors may be appropriate. These are reported in the following chapter and correspond to the theoretical expectations in this regard. Item four (My income exceeds my expenses) did not show meaningful loadings on any of the factors. While item twelve (reading magazines and books) had almost equal loadings on factors two and three, its logical position would be with the multimedia factor, and it was thus included there.

Alpha values range from 0.629 to 0.830. The generally accepted principle is that cronbach alpha values of 0.70 and above are normally employed to denote a good level of internal reliability, values between 0.50 and 0.69 denote an acceptable level of reliability, and scores below 0.50 denote poor levels of reliability (Bryman and Bell, 2007). Although not all factors meet the standard of 0.7, they can still be regarded as acceptable.

4.14 Limitations

Cognitive ability cannot be tested in the scope of this paper and for this reason, the sample will include people of varying levels of education to account for the variance in cognitive ability. It is thus assumed that higher levels of education will act as a proxy for cognitive ability. The impact of financial education can only be measured using a time series analysis which is not feasible due to the time restrictions on this study.

Due to the sensitivity of the information requested, non-response bias could be an inhibiting factor. Duda and Nobile (2010) also warn that online surveys could result in issues around sample validity, non-response bias, stakeholder bias and unverified respondents.

Limited research on the subject as it pertains to South Africa has been conducted. Therefore the literature review has been done with research conducted in other countries using both adolescent as well as adult subjects. The economic, market dynamics and socio-demographics of the countries researched may have had an impact on the results

obtained and cannot categorically be extrapolated to the South African context.

Overconfidence bias refers to an individual's inclination to overestimate the accuracy of his or her abilities or estimates. The survey did not test if respondents were financially literate or financially secure based on the globally accepted definition but relied on the respondent's self-assessment of their financial literacy and financial security. Different understanding of the definition of financially literate and financially secure by respondents could skew the results obtained. However, the accepted definitions of these terms were provided in order to provide guidance. Overconfidence bias could also result in the respondents over estimating the level of financial literacy and financial security.

Chapter 5: Results

The data was analysed using IBM SPSS. A summary of the results obtained is provided. Descriptive statistics were run as well as correlations in order to establish the existence of any relationships. The descriptive statistics are detailed per demographic factor followed by the frequency distribution and mean tables. Correlations in respect of the demographic variables are presented in a tabular format summarising the significant as well as non-significant relationships obtained from running the chi-square tests. Non-significant findings are also presented as these are relevant in the context of how these findings vary from what previous researchers have found. The chi-square and cross tabulation results in respect of the non-significant items can be found under Annexure E. The Spearman's rank order correlation results are presented in a table in the order of the hypothesis, reflecting the component variables that are included in the construct. The construct included in the hypothesis are shaded and bolded on the tables.

5.1 Summary of findings

The sample was characterized by an educated cohort of white, indian, coloured and black respondents, majority of who were older than 40 years of age. Males and females were relatively evenly represented. The majority of respondents were in partnerships and the majority reported personal earnings of above R20 000 per month. Most of the respondents reported personal responsibility for the financial management of their households, which consisted generally of between one to four persons. More than half of the cohort had received a tertiary level of financial education despite the fact that only 10% of the chosen sample was known to have had formal financial education.

Financial literacy and financial security have a significant relationship to each other with a medium practical effect size. 92% of respondents regard themselves as being financially literate, whilst only 62% regard themselves as being financially secure. This indicates that 30% of the respondents are financially literate but are not financially secure. 28% acknowledge that they are in fact over indebted but 51% admit that their expenses exceed their income.

Of the demographic and socio-demographic variables tested, only income was found to have a significant relationship with financial literacy. Gender, age and race did not have a

significant relationship with financial literacy. The level of education, financial education and being in a partnership was also not significant in relation to financial literacy. However, race, education, financial education and income proved to have a significant relationship with financial security. But similar to financial literacy, gender, age and being in a partnership or single had no significant relationship to financial security.

Financial literacy was found to have a significant negative relationship with over indebtedness and a positive significant relationship to 'income exceeds expenses'. A significant positive relationship was also found with reading books and magazines.

Financial security had a significant negative relationship with over indebtedness of a large effect size. Both work colleagues and exposure to advertisements concerning financial products had a negative significant relationship of a small effect size but no significant relationship with 'income exceeds expenses' was established with financial security. A significant relationship was found with reading books and magazines and financial security.

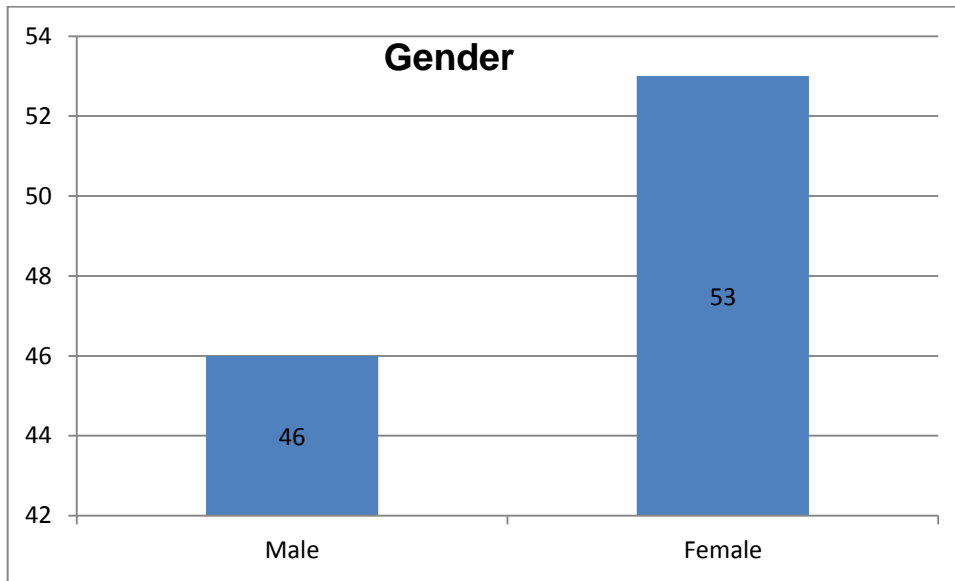
5.2 Demographic profile

The data of 300 respondents was analysed using the IBM statistical analysis tool (SPSS). Where a respondent failed to answer a question, these are reflected as blank. Frequency tables for the demographic factors can be found in Annexure C.

5.2.1 Gender

Male and female respondents were fairly evenly represented. A total of 53% of the respondents were female and 46% were male.

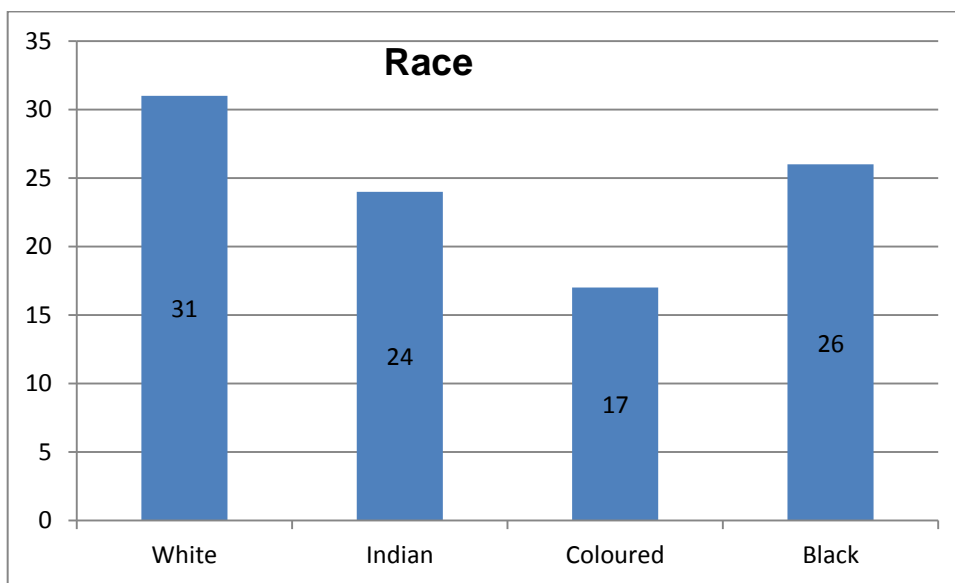
Figure 6



5.2.2 Race

The majority of respondents were white (31%) with black and indian respondents' representing 26% and 24% respectively. Coloured respondents represented 17% of the sample. Three respondents did not answer this question.

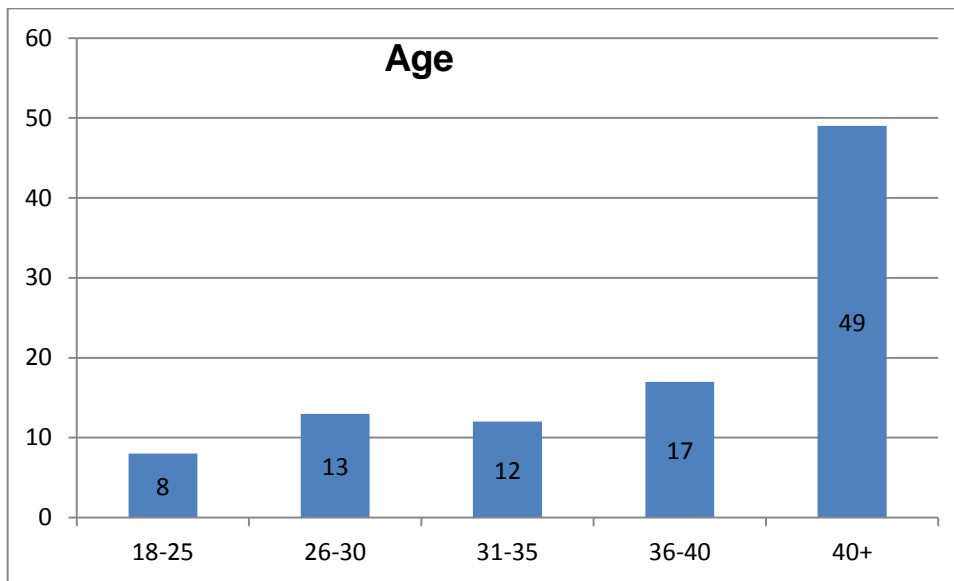
Figure 7



5.2.3 Age

49% of respondents were 40 years of age and older. 17% of the sample represented the age group of 36-40, a further 12% represented the age group of 31-35 and 13%, the 26-30 age group while 8% represented an age group of 18-25.

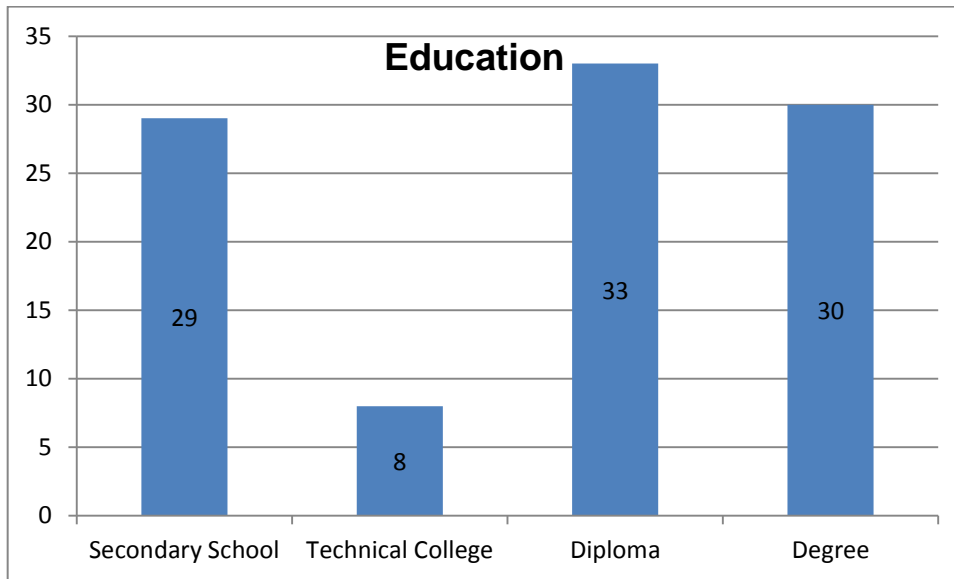
Figure 8



5.2.4 Education

The sample reflected that 33% of respondents had a diploma whilst 30% had a degree of some sort, 29% reflected having completed secondary school and 8% indicated having studied at a technical college.

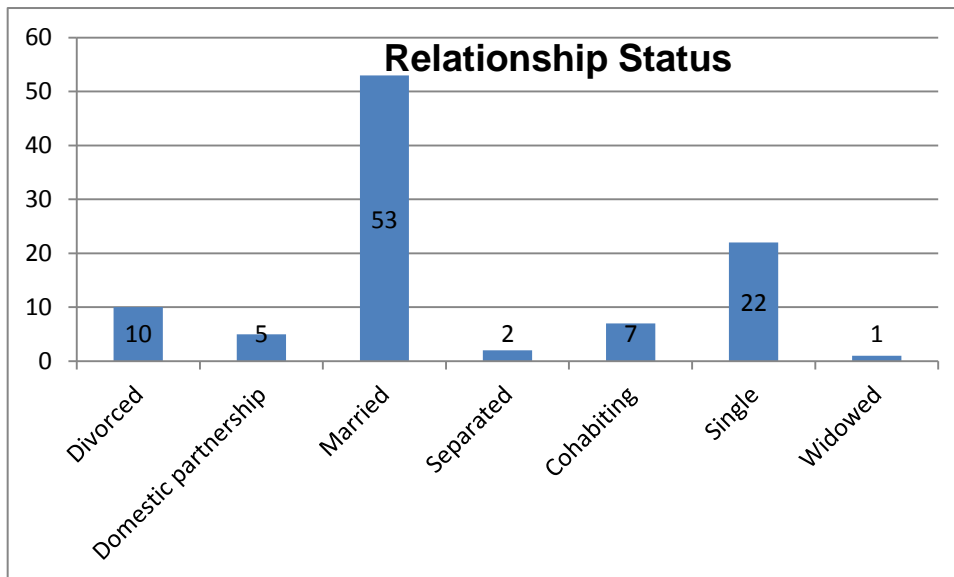
Figure 9



5.2.5 Relationship status

More than half of the respondents were married, representing 53% of the respondents and an additional 12% were either in a domestic partnership, civil union or cohabiting with another. 12% indicated their relationship status as either separated or divorced. 22% of respondents were single and only 1% specified a widowed status.

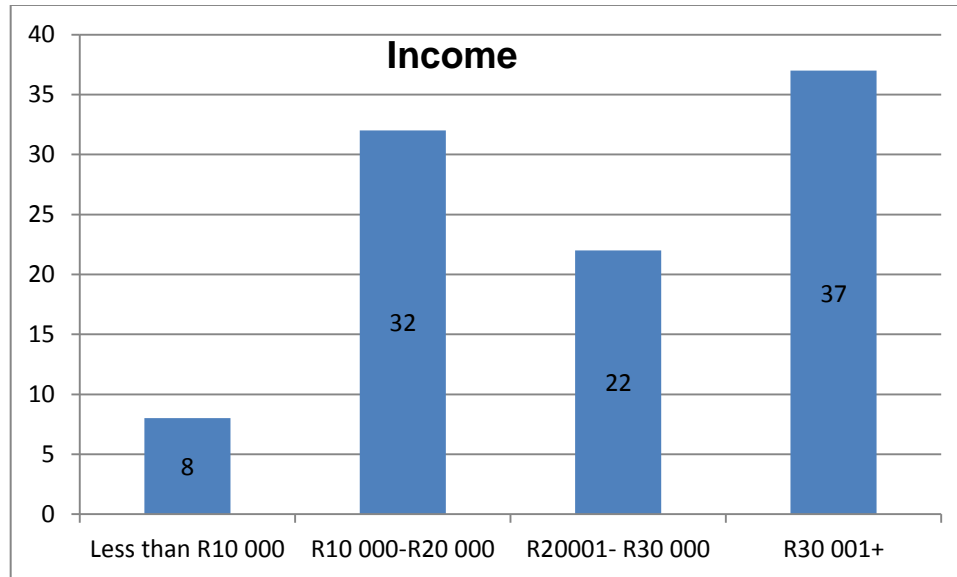
Figure 10



5.2.6 Income

37% of the sample earned above R30 000 per month. 32% earned between R10 000 and R20 000 per month. 22% reflect that their earnings are between R20 001 and R30 000 per month. 8% specified earnings below R10 000 and four respondents, representing 1% of the sample failed to provide a response to this question.

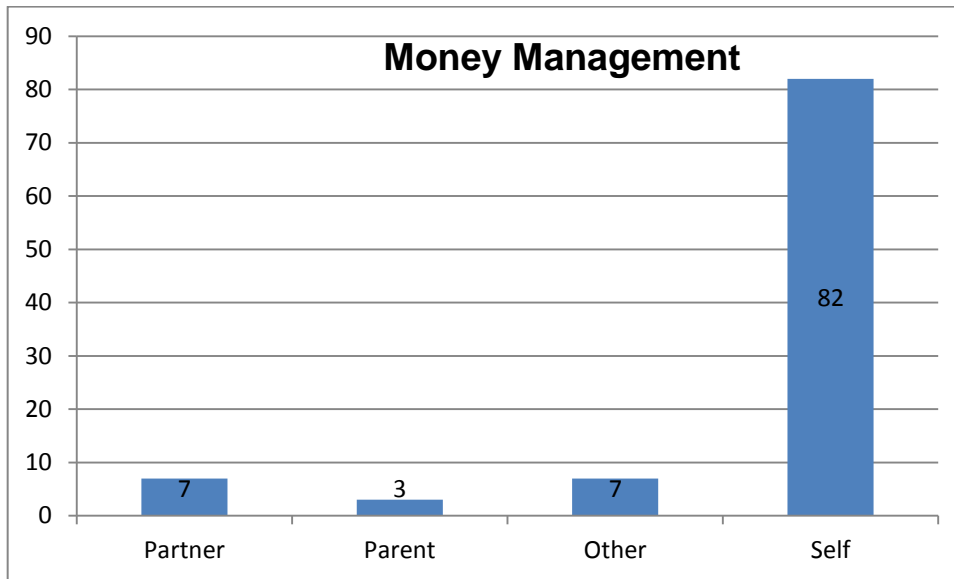
Figure 11



5.2.7 Money Management

82% of respondents regarded themselves as personally responsible for the money management decisions in their households. 7% are reliant on a partner to make the financial decisions in the household, while a further 7% are reliant on a third party. 3% are reliant on parents to make the money management decisions in the household.

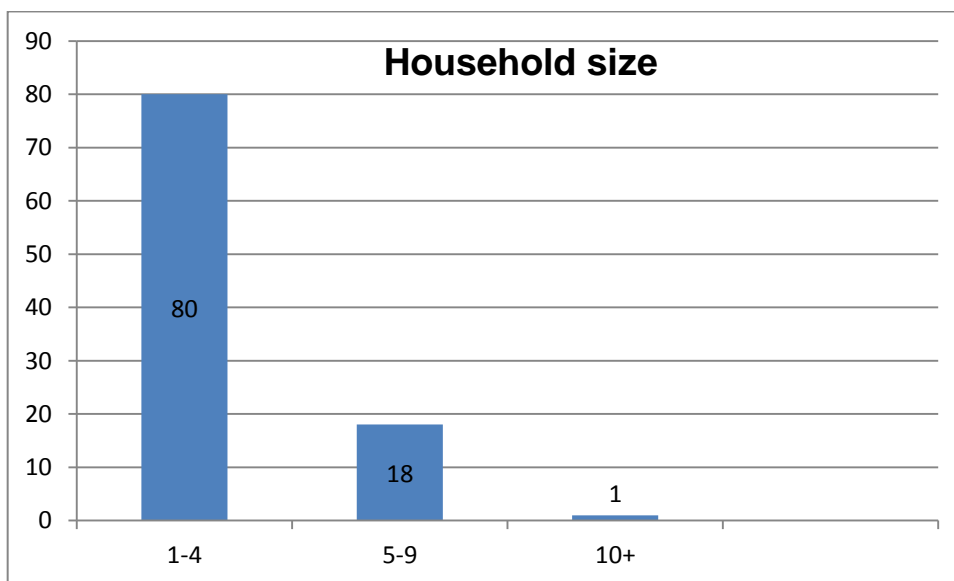
Figure 12



5.2.8 Size of household

The majority of respondents live in relatively small households consisting of one to four people. This category represents 80% of the sample. 18% live in households with five to nine people.

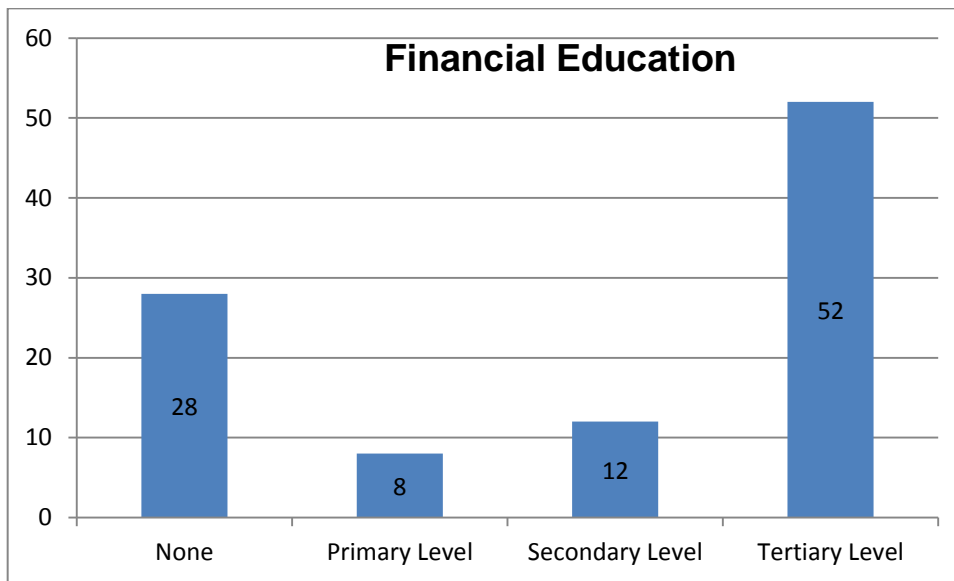
Figure 13



5.2.9 Financial education

52% of the sample indicated a tertiary level of financial education, whilst 28% indicated having no financial education. 8% have had less than six months of financial education and 12% have had at least six to eleven months of financial education.

Figure 14



5.3 Descriptive Statistics

5.3.1 Frequency Table

The frequency table has been ranked in order of agreement (agree plus strongly agree). Of special note is that 91.7% of the respondents agreed with the statement 'I consider myself financially literate' however only 61.6% agree with the statement on financial security. 28.1% consider themselves over indebted while only 48.5% confirm that their income exceeds their expenses.

Table 2

	Strongly disagree %	Disagree %	Agree %	Strongly agree %
If Financial literacy was offered in grade 10-12 at schools would you support this	0.7	3	39.9	56.4
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would make a positive difference to the individuals financial position	0.3	4.4	42.7	52.5
I consider myself financially literate	2.7	5.3	63.3	28.4
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the States burden to provide social security	0.3	13.8	44.8	41.1
If I had exposure to financial literacy courses at tertiary institution, I would make better financial choices	2.7	17.1	52.3	27.9
I would be a more selective consumer if my financial knowledge were better	2.3	20.1	57.5	20.1
I would be wealthier if I had received financial literacy earlier in my career	2.3	24.1	45.8	27.8
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the level of inequality in our communities	3.3	24.7	43.1	28.8
Reading Magazines and watching TV has influenced my financial decisions	2.3	27.4	61.9	8.4
I consider myself financially secure	5.3	33	53.3	8.3
My exposure to advertisements concerning financial choices and products has influenced my financial decisions	5.7	36.1	53.7	4.4
My exposure to Internet has influenced my financial decisions	8.2	36.7	51	4.1
If I had exposure to financial literacy courses at school, I would make better financial choices	6.4	44.4	45.8	3.4
My income exceeds my expenses	11.4	40.1	37.5	11
My mother has been the greatest influence on how I make financial decisions	14.5	41.9	28.7	14.9

My father has been the greatest influence on how I make financial decisions	23.7	40.7	25.7	9
My friends and peers has been the greatest influence on how I make financial decisions	18.4	51.9	26.3	3.4
I consider Myself Over indebted	20.7	51.2	23.1	5
My work colleagues has been the greatest influence on how I make financial decisions	20.3	52.5	25.1	2
My grandparents has been the greatest influence on how I make financial decisions	30.4	53.7	11.8	4.1

5.3.2 Mean and STD Deviation

Table 3

	N	Mean	Std. Deviation
I consider myself financially literate	299	3.18	.644
I consider myself financially secure	300	2.65	.710
I consider Myself Over indebted	299	2.12	.791
My income exceeds my expenses	299	2.48	.837
My father has been the greatest influence on how I make financial decisions	297	2.20	.908
My mother has been the greatest influence on how I make financial decisions	296	2.44	.915
My grandparents has been the greatest influence on how I make financial decisions	296	1.90	.759
My friends and peers has been the greatest influence on how I make financial decisions	293	2.15	.751
My work colleagues has been the greatest influence on how I make financial decisions	295	2.09	.728
My exposure to Internet has influenced my financial decisions	294	2.51	.705
My exposure to advertisements concerning financial choices and products has influenced my financial decisions	296	2.57	.671
Reading Magazines and watching TV has influenced my financial decisions	299	2.76	.630
If I had exposure to financial literacy courses at school, I would make better financial choices	297	2.46	.667
If I had exposure to financial literacy courses at tertiary institution, I would make better financial choices	298	3.05	.746

I would be a more selective consumer if my financial knowledge were better	299	2.95	.703
I would be wealthier if I had received financial literacy earlier in my career	299	2.99	.784
If Financial literacy was offered in grade 10-12 at schools would you support this	296	3.52	.593
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would make a positive difference to the individuals financial position	295	3.47	.599
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the States burden to provide social security	297	3.27	.702
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the level of inequality in our communities	299	2.97	.819

5.4 Principal Component Analysis

A principal component analysis (PCA) was conducted. The Kaiser-Meyer-Olkin (KMO) value was 0.669 and Bartlett's test of sphericity was significant ($p < 0.01$). According to Kaiser (1970) a KMO value of 0.60 to 0.69 could be regarded as "mediocre". Thus although sampling adequacy can be marginally assumed, there may be some doubts about this aspect.

Although the Kaizer criterion (Eigenvalues larger than 1) indicated that eight factors could be extracted, a parallel analysis using a Monte Carlo simulation indicated that five factors or components may be appropriate. These are reported below and correspond with the theoretical expectations in this regard. Item four (My income exceeds my expenses) did not show meaningful loadings on any of the components. While item twelve had almost equal loadings on factors two and three, its logical position would be with the multimedia factor, and it was thus included there. A Factor Pattern Matrix containing the coefficients or "loadings" used to express the item in terms of the factors is reflected in the table below:

Principal Component Analysis

Table 4

Pattern Matrix ^a						Factor name	Alpha
	Component						
	1	2	3	4	5		
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would make a positive difference to the individuals financial position	.881					Education	0.83
If Financial literacy was offered in grade 10-12 at schools would you support this	.830						
I would be wealthier if I had received financial literacy earlier in my career	.729						
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the States burden to provide social security	.723						
I would be a more selective consumer if my financial knowledge were better	.631						
If I had exposure to financial literacy courses at tertiary institution, I would make better financial choices	.587						
If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the level of inequality in our communities	.580						
My exposure to advertisements concerning financial choices and products has influenced my financial decisions		.852				Multimedia	0.676
Watching TV has influenced my financial decisions		.819					
My exposure to Internet has influenced my financial decisions		.537					
Reading Magazines has influenced my financial decisions		.467	.476			Evaluation of own financial position	0.64
I consider myself financially secure			.794				
I consider myself financially literate			.648				
I consider Myself Over indebted			.568				
My income exceeds my expenses							
My mother has been the greatest influence on how I make financial decisions				.796		Family influence	0.629
My grandparents has been the greatest influence on how I make financial decisions				.745			
My father has been the greatest influence on how I make financial decisions				.649			
My friends and peers has been the greatest influence on how I make financial decisions					.841	Friends and peers	0.709
My work colleagues has been the greatest influence on how I make financial decisions					.797		

Extraction Method: Principal Component Analysis.
 Rotation Method: Oblimin with Kaiser Normalization.
 a. Rotation converged in 7 iterations.

5.5 Correlations

5.5.1 Cross tabulations and chi-square

The relationship between financial literacy, financial security and the demographic and nominal variables were investigated by means of cross tabulations and chi-squares. Agree and strongly agree were combined and disagree and strongly disagree were combined as cell sizes were too small in some cases to be coded separately. The table below reflects a summary of the results obtained, following this, the detailed tables in respect of the significant constructs are provided while the non-significant tabular results can be found in annexure E;

5.5.2 Summary of demographic chi-square test results

Table 5

Demographic variable	Financial literacy	Financial security
Gender	Non-Significant	Non-Significant
Age	Non-Significant	Non-Significant
Race	Non-Significant	Significant
Education	Non-Significant	Significant
Financial Education	Non-Significant	Significant
No of people on household	Non-Significant	Non-Significant
Amount of money earned	Significant	Significant
Relationship Status	Non- Significant	Non-Significant
Responsibility for Money Management	Non-Significant	Non-Significant

Income proved to be the only demographic construct with a significant relationship with financial literacy, while race, education, financial education and income proved to have a significant relationship with financial security.

The chi-square results for the significant variables are reflected below, the tables in respect of the non-significant items can be found in Annexure E.

5.5.2.1 Race and financial security

The p value as reflected in table 6 below is .012 and is thus less than 0.05 reflecting a statistically significant relationship. The phi value is .192 reflecting that even though there is a significant relationship between race and financial security, there is a small practical effect size.

Table 6

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.984 ^a	3	.012
Likelihood Ratio	11.105	3	.011
Linear-by-Linear Association	10.865	1	.001
N of Valid Cases	297		
Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.192	.012
	Cramer's V	.192	.012
N of Valid Cases		297	

5.5.2.2 Education and financial security

A p value of less than 0.05 is reflected, indicating a statistically significant relationship between financial security and education, the phi value of .276 reflects a small practical effect size.

Table 7

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.871 ^a	3	.000
Likelihood Ratio	23.712	3	.000
Linear-by-Linear Association	14.755	1	.000
N of Valid Cases	300		
Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.276	.000
	Cramer's V	.276	.000
N of Valid Cases		300	

5.5.2.3 Financial Education and financial security

A p value of .000 indicates a statistically significant relationship between financial security and financial education. A small practical effect size is indicated by the phi measure.

Table 8

Chi-Square Tests				
		Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square		23.091 ^a	3	.000
Likelihood Ratio		23.106	3	.000
Linear-by-Linear Association		18.189	1	.000
N of Valid Cases		298		
Symmetric Measures				
Nominal by Nominal	Phi	.278		Approx. Sig. .000
	Cramer's V	.278		.000
N of Valid Cases		298		

5.5.2.4 Income and financial literacy

A p value of .005 shows that there is a significant relationship between financial literacy and personal income, with a small practical effect size.

Table 9

Chi-Square Tests				
		Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square		12.768 ^a	3	.005
Likelihood Ratio		13.228	3	.004
Linear-by-Linear Association		5.133	1	.023
N of Valid Cases		295		
Symmetric Measures				
Nominal by Nominal	Phi	.208		Approx. Sig. .005
	Cramer's V	.208		.005
N of Valid Cases		295		

5.5.2.5 Income and financial security

There is a significant relationship between income and financial security with a p value of .000 with a medium to large practical effect size.

Table 10

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	48.789 ^a	3	.000
Likelihood Ratio	51.402	3	.000
Linear-by-Linear Association	45.777	1	.000
N of Valid Cases	296		
Symmetric Measures			
		Value	Approx. Sig.
Nominal by Nominal	Phi	.406	.000
	Cramer's V	.406	.000
N of Valid Cases		296	

5.6 Spearman Rank Order Correlation

One of the main purposes of the study was to investigate the relationship of financial literacy and financial security and socialising factors in order to better understand what influences financial literacy and financial security. A Spearman's rank order correlation was performed between financial literacy, financial security and the components highlighted in the Principal Component Analysis.

The results obtained are reflected in the tables below for each component identified, significant correlations, using a significance value of $p < 0.005$, are shaded and bolded;

5.6.1 Spearman's rank order correlation component – Evaluation of financial position

Table 11

		I consider myself financially literate	I consider myself financially secure
I consider Myself Financially Literate	Correlation Coefficient	1.000	.419
	Sig. (2-tailed)	.	.000
	N	299	299
I consider Myself Financially Secure	Correlation Coefficient	.419	1.000
	Sig. (2-tailed)	.000	.
	N	299	299
I consider Myself Over indebted	Correlation Coefficient	-.182**	-.505**
	Sig. (2-tailed)	.002	.000
	N	298	299
My income exceeds my expenses	Correlation Coefficient	.151**	.051
	Sig. (2-tailed)	.009	.381
	N	298	299

Significant factors in this table include being financially literate, financially secure and being over indebted with both of the statements 'I consider myself financially literate' and 'I consider myself financially secure'.

5.6.2 Spearman's rank order correlation component – Family influence

Table 12

		I consider myself financially literate	I consider myself financially secure
My father has been the greatest influence on how I make financial decisions	Correlation Coefficient	-.035	.072
	Sig. (2-tailed)	.543	.215
	N	299	300
My mother has been the greatest influence on how I make financial decisions	Correlation Coefficient	.048	.073
	Sig. (2-tailed)	.407	.214
	N	295	296
My grandparents has been the greatest influence on how I make financial decisions	Correlation Coefficient	-.042	.016
	Sig. (2-tailed)	.473	.780
	N	295	296
My family has been the greatest influence on how I make financial decisions	Correlation Coefficient	.003	.074
	Sig. (2-tailed)	.962	.202
	N	299	300

This table showed no significant correlation of any of variables or the overall component to financial literacy or financial security.

5.6.3 Spearman's rank order correlation component – Friends, peers and colleagues

Table 13

		I consider myself financially literate	I consider myself financially secure
My friends and peers has been the greatest influence on how I make financial decisions	Correlation Coefficient	-.012	-.078
	Sig. (2-tailed)	.837	.184
	N	292	293
My work colleagues have been the greatest influence on how I make financial decisions	Correlation Coefficient	-.036	-.138 [†]
	Sig. (2-tailed)	.544	.018
	N	294	295
My friends, peers and work colleagues has been the greatest influence on how I make financial decisions	Correlation Coefficient	-.051	-.134
	Sig. (2-tailed)	.378	.020
	N	299	300

A significant negative correlation was found between ‘I consider myself financially secure’ and ‘my work colleagues have been the greatest influence on how I make financial decisions’. A significant negative relationship was also found with the component ‘My friends, peers and work colleagues has been the greatest influence on how I make financial decisions’ and ‘I consider myself financially secure’.

5.6.4 Spearman’s rank order correlation component – Multimedia

Table 14

		I consider myself financially literate	I consider myself financially secure
My exposure to Internet has influenced my financial decisions	Correlation Coefficient	-.022	.003
	Sig. (2-tailed)	.714	.959
	N	293	294
My exposure to advertisements concerning financial choices and products have influenced my financial decisions	Correlation Coefficient	-.075	-.118 [*]
	Sig. (2-tailed)	.200	.042
	N	295	296
Reading magazines and books has influenced my financial decisions	Correlation Coefficient	.229 ^{**}	.151 ^{**}
	Sig. (2-tailed)	.000	.009
	N	298	299
Watching TV has influenced my financial decisions	Correlation Coefficient	.015	-.133
	Sig. (2-tailed)	.793	.022
	N	296	297
Multimedia has influenced my financial decisions	Correlation Coefficient	.026	-.035
	Sig. (2-tailed)	.660	.538
	N	299	300

A significant correlation was found between ‘I consider myself financially literate’ and ‘reading magazines and books has influenced my financial decisions’.

A significant relationship was found between ‘I consider myself financially secure’, ‘my exposure to advertisements concerning financial choices and products have influenced my financial decisions’, ‘reading magazines and books has influenced my financial decisions’ and ‘watching TV has influenced my financial decisions’.

No significant correlation was found with the ‘Multimedia has influenced my financial decisions’ component and financial literacy or financial security.

Chapter 6: Discussion of results

The findings related to the financial position of the respondents will be discussed first after which the results addressing each hypothesis will be evaluated.

6.1 Evaluation of financial position

Table 11 shows that financial literacy and financial security have a significant relationship of a more than moderate effect size. As financial literacy increases, so does financial security. However the results of this survey have shown that a large percentage of respondents that classify themselves as financially literate do not classify themselves as financially secure. An increase in financial literacy does not automatically result in a change in behaviour although Robb and Woodyard (2011) indicated that engaging in responsible financial behaviours was positively associated with financial knowledge. This is due to the understanding that having appropriate knowledge does not always result in the appropriate behaviour.

The Financial Advisory and Intermediary Services (FAIS) Ombudsman classifies a consumer as over-indebted when he/she is unable to meet all his/her financial commitments on time, as agreed in a credit agreement (Faisombud, 2015). This could either be because his/her financial commitments have changed or because the individual has borrowed and spent more money than he/she earns. The debt then becomes a major burden for the borrower, which contributes to the individual's social and financial exclusion and can lead to poverty. Being over indebted was negatively correlated to financial literacy and financial security. The fact that the respondents felt that they were over indebted is an indication that the level of debt was not acceptable to the respondent. It is not necessarily an indication that the respondent is less financially literate, rather that the financial behaviour may not have resulted in the respondent feeling confident about their financial position. 28% of respondents regarded themselves as over indebted whereas only 8% of respondents regard themselves as not financially literate.

Being over indebted had a negative correlation to financial security of a large effect size. As financial security has to do with being able to meet future needs, it is understandable that if the respondent cannot meet his current financial obligations, it is not feasible that the respondent will feel financially secure.

6.2 Hypothesis One

Demographic factors such as age, gender, family size, race, income and education, are related to financial behaviour and impacts financial literacy and financial security.

The reported sample population differs significantly when juxtaposed against the national demographics of South Africa (Statistics South Africa, 2014) This suggests that the financial services industry is not representative of the national demographics of South Africa. Figures three, four and five below illustrate a comparison of the age, race and education profile reported in the study compared to the profile of the national statistics of South Africa.

This hypothesis proved true only for income and financial literacy, no relationship was found for gender, age, race, education, no of people in the household, relationship status and responsibility for money management and financial literacy.

The hypothesis proved true for financial security and race, education and income. No significant relationship was found with financial security and gender, age, no of people in household, relationship status and responsibility for money management. The table below summarises the findings and the related chi- square tables can be found in 5.3.1.

Table 5

Demographic variable	Question	
	Financial literacy	Financial security
Gender	Non-Significant	Non-Significant
Age	Non-Significant	Non-Significant
Race	Non-Significant	Significant
Education	Non-Significant	Significant
No of people in household	Non-Significant	Non-Significant
Income	Significant	Significant
Relationship Status	Non-Significant	Non-Significant
Responsibility for Money Management	Non-Significant	Non-Significant

6.2.1 Gender

Males and females were fairly evenly represented as in the national demographic of Gauteng. 92% of both males and females considered themselves to be financially literate in the sample. Thus there was no indication that gender made any difference to financial

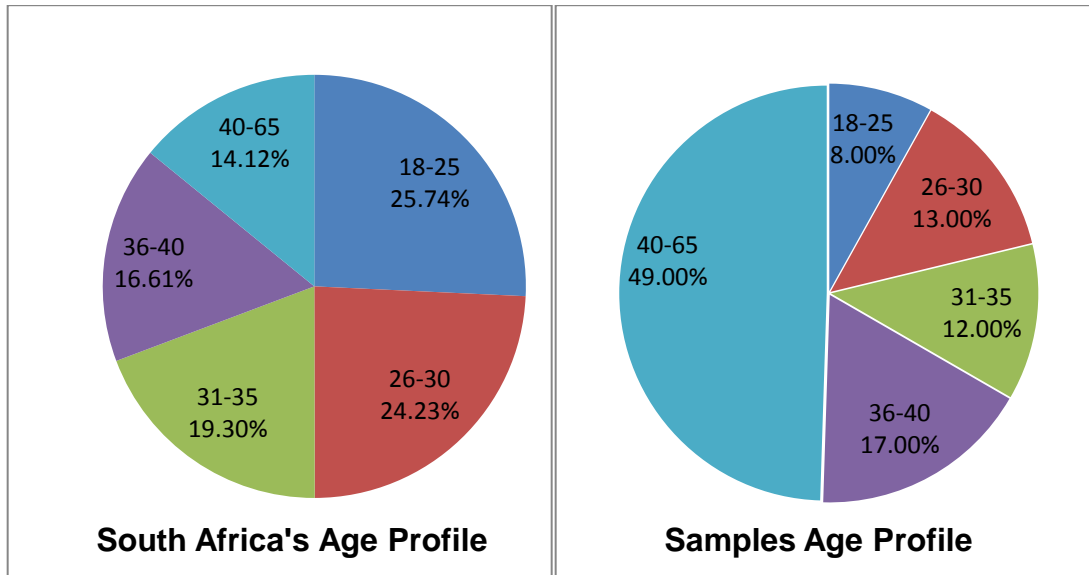
literacy in this sample. While more males (67%) than females (56%) considered themselves to be financially secure, there was no significant relationship between financial security and gender either. This is contrary to the view of Tang, Baker and Peter (2015) who found that gender influenced behaviour and consequently financial literacy. Brown and Graf (2013) also found significant gender disparities in financial literacy.

A similar study was repeated in Netherlands, Sweden, Germany and Japan in case studies performed by Almenberg and Säve-Söderbergh (2011), Bucher-Koenen and Lusardi (2011) and Sekita (2011) and similar results were obtained. Due to the strong cultural influence in South Africa, one would have expected males to have higher literacy than females as South African cultures are largely patriarchal societies. However, due to a large proportion of the sample, 31%, being white, the cultural influence is minimised. This could also be due to the fact that the sample employees work in a financial services industry and as such both males and females are educated and financially literate as well as financially secure.

6.2.2 Age

People over the age of 65 and under the age of 18 were excluded from the national statistics due to the working age group falling between ages of 18 and 65, and the sample group being from a working group. The sample reflected that 49% of the respondents were over the age of 40, while 14.12% of the South African demographic were over the age of 40. The 18-30 age group make up 50% of the South African population while this group is only represented by 25% in the sample group. This could skew the results obtained as a larger proportion of the sample is from an older group.

Figure 3
Age Profile



Age had no significant relationship to financial literacy or financial security in this sample. The majority of all age groups agreed with the statements on financial literacy and financial security. In this study there was no difference in the results of middle-aged respondents and younger respondents and financial literacy as was reported in the studies by Crossan et al., (2011), Fornero and Monticone (2011), Klapper and Panos (2011), Lusardi and Mitchell (2011a) and Bruhn et al., (2013). The findings of this study concur with findings by Brown and Graf, (2013), that there is no significant relationship. However, in every age group, there is a difference in the number of individuals that consider themselves to be financially secure and those that consider themselves to be financially literate. Almost half of those that consider themselves financially literate do not consider themselves to be financially secure. This reflects that despite having an understanding of financial matters, the financial behaviour has not resulted in the confidence that they will be in a position to meet future financial needs, based on today's economic circumstances.

This could be explained by the current economic environment in South Africa. There has been an increase in the use of credit to supplement household budgets. Household debt levels are at 78% of disposable income (Finweek, 2015). Increased debt levels, coupled with lower savings rates have trapped South Africans in a credit spiral (Nene, 2015). However, based on the findings of this sample, it is not due to lack of financial literacy that South African debt has reached alarming levels. 96% of the 18-25 year olds sampled

considered themselves to be financially literate, while only 46% considered themselves to be financially secure. This could be accredited to the fact that this age group have only been in employment for a relatively short period of time and have not as yet established themselves in a career or financially. They have also not had sufficient time to build capital and many may still be paying off student loans.

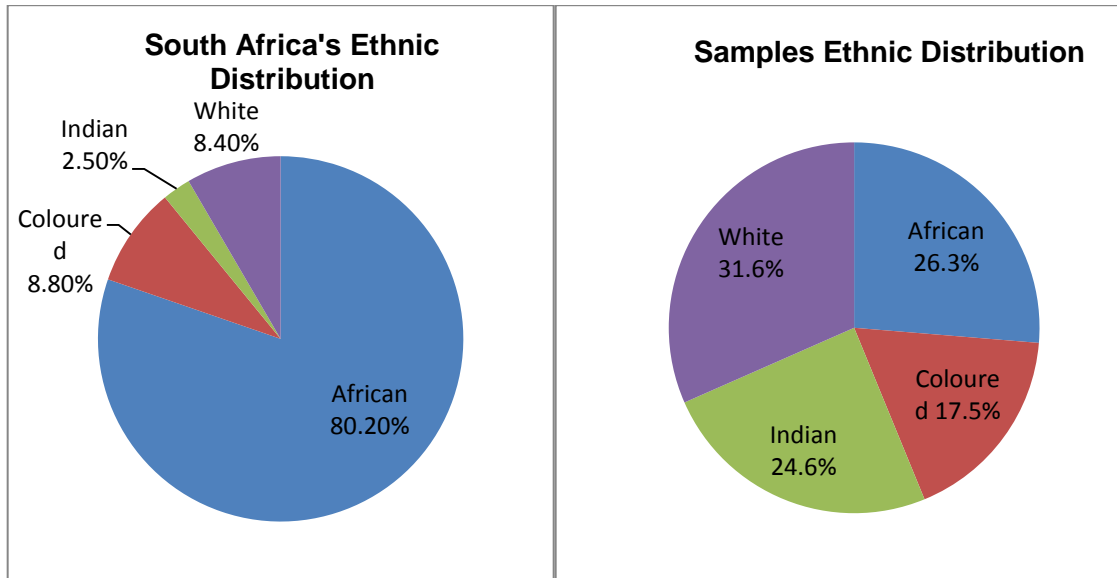
95% of the sample aged 26-30 considered themselves to be financially literate while only 69% reported to be financially secure. 94% of 31-35 year old considered themselves financially literate and 69% consider themselves financially secure. 36-40 reflect 87% financially literate and only 46% consider themselves financially secure. This could be attributed to the life stage they are in as this is generally when people get married and start families and households. Weakening economic conditions and rising inflation has made household reliant on debt to meet needs and wants.

In the over 40 age group, 92% considered themselves to be financially literate and only 63% considered themselves to be financially secure. This is alarming as it is within this age group that retirement planning becomes critical. If a person is not financially secure after the age of 40, it is doubtful that they will have a secure retirement. This may have significant consequences on the state and the economy that is already overburdened by its social security commitments.

6.2.3 Race

The sample population was largely represented by white employees (32%) versus the dominant national race being African (80%) as shown graphically in Figure 4 below. This limits the extrapolation of the findings to the rest of South African populace.

Figure 4
Ethnic Profile



No significant relationship was found between race and financial literacy in this sample. While 95% white and 94% black respondents considered themselves financially literate, 89% of both coloured respondents and indian respondents considered themselves to be financially literate. Race as identified by Fonseca, Mullen, Zamarro and Zissimopoulos, 2012; Lusardi, Mitchell and Curto, 2010; Monticone, 2010, did not influence the sample used in this study.

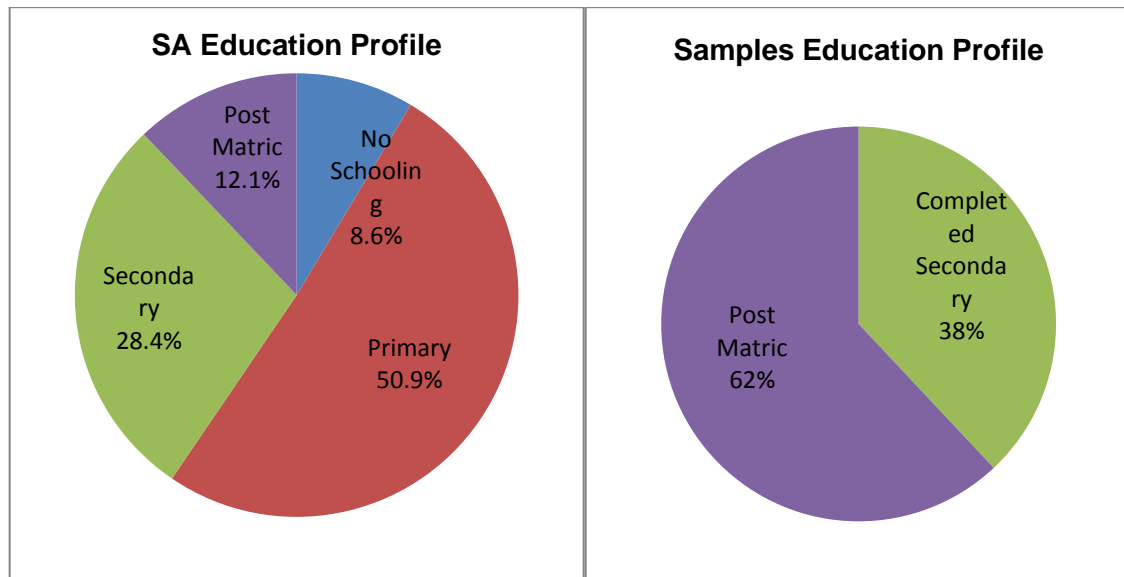
There was however a statistically significant relationship between race and financial security, be it of a small practical effect size. White respondents were the most likely to feel financially secure, followed by indian and coloured respondents. Black respondents were least likely to feel financially secure. However 50% of black respondents in the sample agreed that they were financially secure, while 74% of white respondents in the sample felt financially secure. Even though black respondents had the lowest level of agreement, half of them still agreed. Forte (2014) identified that race was part of the cultural and social environment and could not be excluded from any meaningful financial education intervention as this influences how we learn and interpret the world. With the historical background of South Africa, apartheid has played a big part in the education exclusion of historically disadvantaged individuals. It is interesting that 94% of black

respondents in the sample consider themselves financially literate, though only 50% of those that consider themselves literate consider themselves to be financially secure.

6.2.4 Education

Figure 5 depicts that 62% of all respondents within the study had received a university degree or diploma, and thus represent a highly educated cohort. The national statistics reflect that 51% of the populace had only completed primary education or less. Only 12% of South Africans have a post matric qualification. The perceived high level of employee education proposes that tertiary education may be a requirement for employment within the financial services industry. This is likely as the core business of financial services industry companies involves selling and administration of financial products.

Figure 5
Education Profile



92% of all levels of education across the sample agreed that they consider themselves financially literate. 96% of respondents with degrees felt financially literate, while 89% of respondents who completed secondary school or technical college agreed with the statement. While the relationship with financial literacy is not statistically significant in this sample, there is a statistically significant relationship between financial security and education. In this sample, respondents with a degree felt more financially secure than respondents that have a diploma, technical college or secondary school certificate. The

percentage of respondents that felt financially secure declines to 80% amongst respondents with degrees compared with 45% for respondents that have completed secondary school.

Shim et al. (2010) found that secondary school education was a predictor for adolescent's financial behaviours and affect future financial behaviour. 98% of the respondents felt that financial literacy should be offered in grade 10-12 at schools and 94% felt that it would make a positive difference to their financial position. McCormick (2009), Friedline (2015) and the OECD (2014a) all agree that early and gradual financial education is seen to have the highest impact on future behaviour. Providing basic financial training in secondary school could make a difference in how financially secure individuals with only secondary school level education feel as adults. Finmark Trust (2005) also regards financial education as a process that starts with basic education and develops over time as the individual's level of understanding improves.

6.2.5 Income

Of the demographic variables tested only income proved to have a statistically significant relationship to financial literacy, with a small to medium practical effect size. 91% of respondents earning less than ten thousand rand consider themselves financially literate compared to 95% of those earning above thirty thousand rand which reflects 37% of the sample. 99% of those earning between twenty and thirty thousand rand felt they were financially literate. If one considers that 72% of the sample report having had some type of financial education, then the large amount of respondents that consider themselves financially literate seem reasonable. Brown and Graf (2013) established that a significant difference in financial literacy exists amongst the different income brackets as was stated by Almenberg and Säve-Söderbergh (2011), Bucher-Koenen and Lusardi (2011) and Sekita (2011).

Financial security was also found to have a statistically significant relationship with income, with a medium to large practical effect size. The majority of those earning more than twenty thousand rand agreed with the statement on considering themselves financially secure. The percentage in agreement was higher for those earning above thirty thousand rand than for those earning above twenty thousand rand - 85% vs 63%. The more people earn the more financially secure they feel. 51% of respondents confirmed that their

expenses exceed their income, while 28% considered themselves to be over indebted. This mirrors the fact that 60% of respondents earning less than twenty thousand feel that they are not financially secure. 90% of those reporting to be financially literate and earning above thirty thousand rand felt financially secure, whilst only 43% of those that felt financially literate earning less than ten thousand rand felt financially secure. Income is thus a factor that influences financial literacy and financial security.

Having an income allows one the opportunity to access financial markets and in this way to gain knowledge and experience. With disposable income, one gains the ability to test financial products and the ability to take a greater amount of risk. Having disposable income also allows the consumer to make more selective financial choices and gives bargaining power to the individual. This allows one to learn more about financial markets and products available, allowing for a more financially literate individual.

6.2.6 Relationship Status

Relationship status was recoded into single and non-single, as the component sizes were too small. All single groups such as divorced, separated, single-never married and widowed were combined into a singles category. A second category of a non-single group was then formed by combining domestic partnership, married and single-but cohabiting with another.

Relationship status was statistically not significantly correlated to financial literacy in this sample. 92% of both single and non-single groups agreed with the statement that they were considered to be financially literate. There is also no statistical significant relationship with financial security and relationship status in this sample. 56% of the singles group agreed that they considered themselves financially secure while 65% of non-single people agreed that they consider themselves financially secure. It would seem to be that people who have a partner tend to feel more financially secure.

6.2.7 Family Size

The number of people in a household was not significantly correlated to either financial literacy or financial security in this sample. The majority, 80%, of respondents reported having one-four people living in their households and 93% of these reported to be

financially literate. 62% of households with one-four people regard the household as being financially secure. This could be due to the sample race and age group as reflected in figure 3 and 4 above, being atypical.

6.3 Hypothesis Two

6.3.1 The primary source of financial socialisation for financial literacy and financial security is the family, particularly the role of parents

Shim, Serido, Bosch and Tang (2013), Tang, Baker and Peter (2015) and Shim, Barber, Card, Xiao and Serido (2010) cited parents as being the largest contributor to the financial attitudes and behaviour of adolescents and also reiterate the importance of parental influence in financial decision making. This hypothesis proved not to be true as no statistically significant relationship was found in this sample between the influence of the family and their financial literacy or security. Similarly, no significant relationship was found with the mother, father or grandparents. 64% of respondents disagreed that their father was their greatest influence on their financial behaviour, and 55% disagreed that their mothers were the greatest influence on their financial behaviour. There was agreement by 15% of the respondents that their grandparents were the greatest influence.

This is aligned to Sohn, Joo, Grable, Lee and Kim (2012) who concluded that parents played a lesser role in financial socialising than other agents. 67% of respondents were from black, coloured and indian race groups, and 78% being older than 30 years of age. This means that the majority of respondents grew up in the apartheid era and had parents who lived through apartheid for most of their lives. This meant that schooling for these groups was compromised and of a lower quality and standard of education. Majority of the women in this era, from the indian, coloured and black communities did not finish secondary schooling and instead worked in factories or assisted the family at home. South Africans have a disadvantage in that many parents have had little schooling and have had limited access to the financial system. The implication is that transference of knowledge and financial ability through explicit or implicit teaching in the home is unlikely. Shim and Serido (2011) recognized the changing roles of parents at different stages of child development from parental role to a more peer role involvement at adult stage, as the majority of respondents are older than 30, the parental influence could have diminished from adolescents to adulthood.

Due to the prevalence of poverty, labour migration, educational opportunities or cultural practices, Hall et al., (2009) explain that South Africa has a long history of biological parents not living in the same dwelling with their offspring. This could be another reason why parents have no significant relationship to financial literacy or financial security in the sample. Richter, Desmond, Biersteker & Burns (2012) also contend that South Africa has one of the highest rates of father absence in the world. Implicit learning by the individuals concerned could also have taken place unconsciously. Solheim, Zuicker and Levchenko (2011) identified that implicit learning could take place by the observance of positive parental behaviour or by the observance of the lack of financial management by parents and its consequences and the determination not to follow in the same path. If future financial behaviour is already formed at the age of three (Clarke et al., 2005), it may be that respondents are not aware of where their financial socialisation actually happened.

6.4 Hypothesis Three

6.4.1 The primary source of financial socialisation for financial literacy and financial security is friends, peers and work colleagues

Lusardi, Mitchell and Curto (2010) established that peers and colleagues also informed the individual's behaviour and attitude toward financial decisions. 29% of the sample agreed that friends and peers have influenced how they make financial decisions, and 27% agreed that colleagues have influenced how they make financial decisions. However, friends, peers and colleagues did not have a statistically significant correlation to financial literacy amongst the respondents, refuting the hypothesis. This contradicts Shim et al. (2015) statement that peers, especially close friends, serve as additional socialising agents in the development process.

Work colleagues were found to have a negative significant relationship to financial security but of a small practical effect size. The respondents could thus be comparing themselves to their work colleagues and are left feeling less secure in comparison. This could reaffirm findings by Garrison and Gutter (2010) and Gutter et al. (2010) who contend that friends are known to influence behaviours in both positive as well as negative outcomes. 30% of the respondents agreed that friends and peers had influenced their financial decisions and 27% agreed that colleagues had influenced their financial decisions. According to Goetz, Durband, Halley and Davis (2011) people learn best from others they see as similar to

themselves. With the diversity of the South African work environment, it could be that work colleagues are in fact very different from each other and thus miss the opportunity to learn from their work colleagues.

6.5 Hypothesis Four

6.5.1 Access to and exposure to multi-media influences financial behaviour and impacts financial literacy and financial security

Multimedia has been broken into exposure to internet, exposure to advertisements concerning financial choices and products, reading magazines or books and watching TV. All multimedia did not have a statistically significant relationship to financial literacy or financial security, which is contrary to the view of Sohn, Joo, Grable, Lee and Kim (2012). 55% of respondents agreed that the internet has had an influence on how they make financial decisions, 58% agreed to advertisements and 49% agreed that watching TV has influenced how they make financial decisions. 70% agreed that reading magazines and books has influenced how they make financial decisions. Exposure to advertisements had a negative correlation with a small practical effect size with financial security.

The technological sophistication of the sample could not be as pronounced as that investigated in the study by Berk (2009), where the use of digital tools was more prominent. South Africa stands on a media verge where access to internet and usage of technological applications has started to increase. However a large proportion of the population still do not have access to electricity and thus will not be in a position to take advantage of the electronic media platforms available. Increasing the technological ability is being supported by the education department that has started introducing technology in the learning platforms used by public schools. Electronic media could thus play a bigger role in socialisation in the future.

66% of the sample also did not form part of the net generation as hypothesised by Baker, Matulich and Papp (2011). For this reason, learning in an online environment and experiencing the world through electronic media may not have been a preferred learning style for this sample group.

Reading books and magazines had a positive correlation with financial literacy and financial security with a small practical effect size. Baker, Matulich and Papp (2011) established that those born in the 80's and 90's experience the world through multimedia and not through print. As 67% of respondents were above the age of 35, print may have proven to be more important. The results could also be an indication that South Africans are not technologically prepared to use electronic media as a learning platform.

Exposure to advertisements and watching television had a negative correlation with financial security, although with a small practical effect size. This could be due to the fact that advertisements and television reflect near perfect circumstances which do not take the reality of economic conditions and the personal circumstances into account. When seeing what actors in advertisements and television have, respondents feel less financially secure.

6.6 Hypothesis Five

6.6.1 Financial education impacts financial behaviour and thus impacts financial literacy and financial security

This hypothesis proved true for financial security but not for financial literacy. Financial education did not have a significant relationship with financial literacy. Thus the hypothesis is true for financial security but not for financial literacy. This is contrary to the findings of McCormick (2009), Friedline (2015), OECD (2014a) but concurs with the findings of Hathaway and Khatiwada (2008) as well as Willis (2008, 2009). The sample reflected a highly educated cohort with 52% having had a tertiary level of financial education and 28% not having had any financial education. It appears that the level of financial literacy is not ascribed to the fact that they have had financial education. Only 8% indicated having no formal financial education. This could be indicative of the high financial literacy of the sample, where 91% agreed with the statement "I consider myself financially literate". Of those with no formal financial education 88% consider themselves financially literate.

Financial education reflected a statistically significant relationship to financial security, with a small to medium practical effect size. This supports Robb and Woodyard (2011) and Lusardi and Mitchell (2007) who found evidence of a positive association between financial knowledge and financial behaviour. A higher proportion of those with no financial

education or less than 6 months formal financial education consider themselves to not be as financially secure as those who have had formal financial education.

Collins and O'Rourke (2010) regarded the change in behaviour to be the gauge of success of financial education. Increased financial security could be a gauge of the success of financial education interventions. Those with a secondary and tertiary formal financial education indicated a greater agreement with the statement with 60% in agreement for those with secondary level financial education and 73% for those with a tertiary level of financial education.

On enquiring if exposure to financial literacy courses at school or tertiary institution would have helped to make better financial decisions, 80% of respondents agreed that financial literacy exposure at a tertiary institution would have assisted them in making better financial decisions. Respondents were split on the impact that financial literacy courses at school would have, but by far the majority of respondents would support financial literacy courses to be offered in grade 10 to 12 at schools and the majority believe that it would make a positive difference to the individual's financial position. The majority of respondents also believe that offering financial literacy in these grades would influence the levels of inequality in communities and impact the states burden to provide financial security.

6.7 Conclusion

Looking at the socialisation model proposed by Gudmunson and Danes (2011), figure one, the approach that family is a major influencer is reinforced by a number of authors. The fact that family interactions and family relationships inform financial behaviour is also supported by numerous authors. Both purposive and passive financial socialisation can take place in the family unit. However, this study did not support the hypothesis that the family had influenced the financial socialisation process. Income appears to be a contributor to financial literacy and financial security. This could be attributed to the fact that having money provides the opportunity to access financial markets and thus gain experience and knowledge in financial matters.

Race and education appear to affect the outcome of feeling financially secure whereas they do not affect financial literacy. Purposive financial socialisation as contended by conventional authors may take place outside of the family. However, more contemporary

authors have included multi media as a major influencer. The influence of multimedia may become more prominent in the future as exposure to technology and the internet increases. How advertisements and watching television detract from feelings of financial security need to be better understood in order to change the influence that these types of media are having on individuals.

Including reading material as a purposive financial socialising mechanism outside of the family unit in the Gudmunson and Danes (2011) model could add an additional stream of financial socialising.

Chapter 7: Conclusion

7.1 Principal findings

Financial literacy and financial security have a significant relationship to each other. One cannot be financially secure without being financially literate. However, being financially literate does not automatically lead to financial security. Descriptions of financial literacy recognise that individuals must not only have the necessary knowledge, but must also have the ability and confidence to apply their knowledge in order to make sound financial decisions. This was affirmed by Lapp (2010). Application of the knowledge and changing behaviour to emulate what one has learned leads to financial security. As discussed in the literature, increasing financial knowledge is not the goal itself, the ultimate goal of financial literacy initiatives should be to alter and have a positive effect on financial behaviour (Willis, 2009). Robb and Woodyard (2011) and Lusardi and Mitchell (2007) found that a positive relationship existed between financial education and behaviour. It stands to reason that if there is an increase in the level of financial literacy education, individual's behaviour will change to allow for a positive financial outcome.

Financial literacy knowledge and behaviour are intricately connected in an almost circular fashion. As one's financial knowledge increases it tends to result in positive financial behaviour and positive financial outcomes. As financial behaviour changes, financial experience increases which results in increased financial literacy. The connection between financial literacy knowledge and financial behaviour results in a virtuous cycle which ultimately improves the individual's financial circumstances. Improved financial circumstances will leave the individual with increased financial security and ultimately an improved sense of financial well-being.

The influencers of financial literacy were found to be income and reading books. The more income a person received the more financially literate individuals considered themselves to be. Higher income can result in increased savings and investments, provided that the behaviour is such that the additional income received, above the required needs, is not consumed. Lower income households do not have excess funds to save for unexpected expenses or to assist in overcoming economic shocks and thus rely on debt instruments to overcome times of need. This results in a diminished sense of financial security. These households will satisfy lower-level needs, that is those financial needs related to

immediate consumption (physiological needs), and defer higher-level needs, which refer to those financial needs related to future consumption (security needs).

Reading books can be regarded as informal education where respondents assume control of increasing their knowledge. The motivation or goal of the individual to change their financial position could drive the individual to seek out information to assist and guide them in making financial decisions. Both Mandell and Klein (2007, 2009) and Maurer and Lee (2011) identified that motivation played a key role in financial literacy education. The same element influenced financial security, which could indicate that individuals are reading more on the subject of finances and changing their behaviour accordingly. By increasing their knowledge, individuals become more aware and selective in their use of financial products and services.

Being over indebted is related to being less financially literate and less financially secure. Being over indebted is not necessarily due to individuals not understanding the implications of debt. It may also be due to the economic environment or circumstances in which individuals find themselves at a point in time. Importantly, individuals that are not financially literate use debt instruments that are more costly as they typically have limited options available to access financial instruments. Therefore the use of 'loan sharks', unsecured lending and the use of 'money lenders' in South Africa is on the increase.

In this sample, neither education nor financial education had an influence on financial literacy. The school curriculum in South Africa does not provide financial literacy as a subject, but has instead imbedded financial concepts within subjects such as mathematics and economics, which are not compulsory for all students. Similarly, financial education is not provided in all curricula at tertiary level, but rather as a specific standalone course to be selected by the candidate if they so wish. Education and financial education were found to be related to financial security, having a better understanding of saving, investment and debt instruments would affect access to availability of funds. The ability to meet both basic needs as well as future needs based on one's current economic situation is improved if one understands its implications. University graduates tend to have higher levels of financial security than people without a university education.

Race also has a relationship with financial security. The finding in this study could be

directly related to the legacy of the apartheid system in South Africa, but also corresponds with previous research of Lusardi, Mitchell and Curto (2010) as well as Forte (2014). Similar to the findings of this study, Lusardi (2015) likewise found that white respondents displayed higher levels of financial literacy than African American and Hispanic respondents. This reinforces the belief that previously disadvantaged groups may not have had the benefit of observing positive financial behaviour or implicit learning of financial management in the home.

Exposure to advertisements, watching television and work colleagues were inversely correlated to financial security. The more advertisements and television the respondents watched the less financially secure people felt. The same phenomenon was seen with work colleagues. Advertisements and television tend to display individuals that are prosperous, with assets and circumstances that individuals tend to desire for themselves. The consequence is that the individual is left feeling less secure. This could indicate that people compare themselves to those around them, and therefore feel that they are not financially secure.

The results of this study did not support previous research showing that gender and age influence financial literacy or financial security. Middle aged respondents were not found to be more financially literate than older or younger respondents. This contradicts research findings in New Zealand, Italy, Russia, and the United States (Crossan et al., 2011; Fornero and Monticone, 2011; Klapper and Panos, 2011 and Lusardi and Mitchell, 2011a).

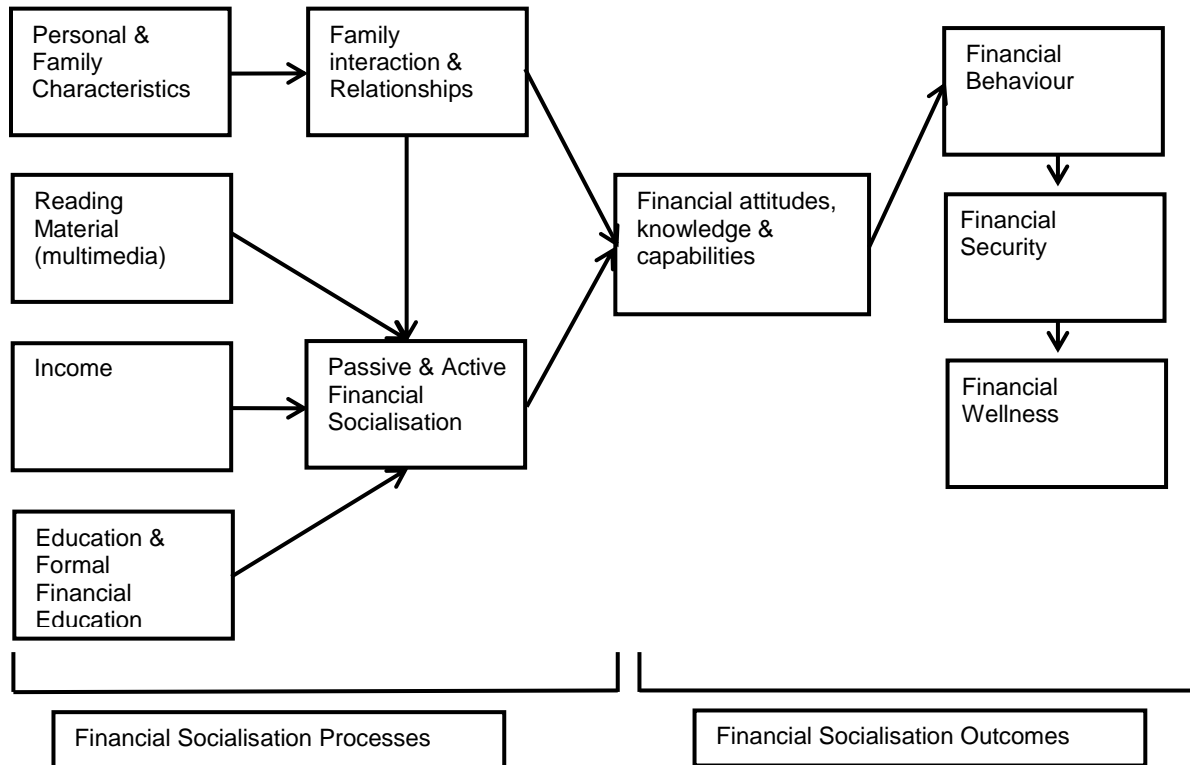
Family and parental influence was also not influential in financial socialisation in this study. The structure of the family unit in South Africa and the legacy issue of apartheid may have resulted in compromised education levels of the parents. The result is that observational learning as well as transference of financial knowledge has not always been possible. Respondents therefor sought alternative socialisation mechanisms. The legacy of poverty has also meant that families either have no income or do not have excess income. Little opportunity exists for parents to teach their children about saving and investing when meeting the basic demand of providing food is a challenge.

Elements of multimedia and financial education influenced financial security but showed no significant correlation to financial literacy.

7.2 Proposed financial socialisation Model

Taking the above findings into account, one can expand the Gudmunson and Danes (2011) model from a family financial socialisation model to a financial socialisation model. The proposed model is as follows:

Figure 6 Proposed financial socialisation model



Personal characteristics and family characteristics such as race influence the financial literacy and financial security of the individual. Family interaction and family relationships can have an active influence on financial attitudes, knowledge and capabilities but can also have a passive influence. This is due to the influence of observed behaviour rather than taught behaviour on the individual. Reading material was found to influence the individual's financial literacy and financial security, but does depend on the motivation of the individual. The influence of income, as explained in chapter six, can be explained by the ability of the individual to experiment and partake in financial opportunities due the availability of funds and access to favourable financial instruments, such as debt instruments and financial loan terms. Individuals with better credit records have access to

a wider range of debt instruments at better rates than those with compromised credit records.

Education and formal financial education was found to influence financial security. However financial security is the result of demonstrating the correct financial behaviours. This could also be seen as an active financial socialising agent. The correct financial behaviours lead to an improved sense of financial security which will ultimately lead to financial wellness. This model could inform the socialising agents in developing countries where the influence of the family is less pronounced.

South Africa has undergone unprecedented economic change and uncertainty. The complexity of the financial landscape is increasing at an alarming rate. Consequently all citizens will be required to assume greater responsibility for their future financial security. It is therefore imperative for corporations, government and policy makers to assist the citizens of the country to meet that challenge. To meet the challenges ahead, we will need to adopt attitudes and behaviours better suited to the new financial environment.

7.3 Implications

7.3.1 Implications for management

South Africa requires a greater emphasis on financial literacy and financial security education for secondary school and university students. Personal finance courses should also be included at FET colleges. Financial service providers and practitioners can help both parents and emerging adults by developing programs to educate parents about the important role they play in establishing healthy financial behaviours in their children. Changing financial behaviour to increase financial security of people who are financially literate should be a focus point of initiatives.

7.3.2 Implications for policy makers

People with lower incomes tend to have lower levels of financial literacy and financial security than those with higher incomes. This means that more attention should be focused on assisting lower level income groups to increase financial literacy and to change financial behaviour. Tax and saving incentives to increase savings and investment opportunities amongst lower income groups should be investigated. Financial guidance to

assist people that are over indebted to reach a financially secure state should be provided as an action plan to assist individuals and households.

7.3.3 Implications for educational institutions

The use and distribution of reading material that can be used as self-help guides should be encouraged. Books that explain basic financial concepts as well as books that offer more advanced assistance with regard to which financial instruments to be used should be marketed. It is important that these materials are related to the South African market and not to developed countries as the legislation and financial markets differ in various countries.

In addition to on-campus venues, colleges and universities could offer formal finance classes through various information channels, including the internet, financial publications, and special workshops at off-campus sites. These could be sponsored by private and public-sector organizations and can be driven as part of the financial services sector charter.

7.4 Limitations of the research

The research findings suggest that the financial services industry in Gauteng is dominated by older, white, highly educated employees and can thus not be extrapolated to other regions. As other industries may be more representative of the national demographic of South Africa, it also limits the extrapolation of these results to other industries.

The use of self-assessments of financial literacy and financial security may pose a bias as people may over estimate their abilities. Overconfidence bias refers to an individual's inclination to overestimate their abilities or the accuracy of their estimates. The survey did not test if respondents were financially literate or financially secure based on objective criteria that constitutes the globally accepted definition but relied on the respondent's self-assessment of their financial literacy and financial security. Different understanding of the definition of financially literate and financially secure by respondents could skew the results obtained. Overconfidence bias could also result in the respondents over estimating the level of financial literacy and financial security.

The external environment and economic circumstances may affect the current financial situation of a person and may affect how they regard their financial status. Due to a constrained economy, people may find themselves in a more financially constrained position than usual and this may therefore affect their judgement as to whether they are financially literate or financially secure.

Psychological heuristics and biases impact how people process information and influences behaviour; therefore it is important that cognitive ability be tested in conjunction with a financial literacy study. Due to the subjective nature of the questions posed; the results rely greatly on the veracity of the participants.

7.5 Suggestions for future research

Having appropriate knowledge does not always result in appropriate behaviour. Despite being financially literate, social and psychological forces cause people to act in a certain manner. Other influences and predispositions such as behavioural and cognitive biases, self-control issues, economic, community and institutional effects can affect financial behaviours and financial well-being. The effect of these on financial literacy and financial security should be investigated further.

The link between financial literacy and financial behaviour needs to be further explored as financial literacy levels predict financial behaviours but financial behaviours (experience) may also predict financial literacy levels. The one informs the other in an almost circular fashion. How financial experience affects financial literacy levels and how financial literacy affects ones behaviour needs to be better understood in order to positively influence the respective outcome.

Expanding the research to cover a more representative sample of the various regions of South Africa to include urban and rural settlements as well as various industries may give a better indication of the influences on financial literacy and financial security. Longitudinal studies looking at the effect of focused financial education at secondary school level and its impacts into adulthood will add insight. Doing this in both a quantitative and a qualitative setting will provide valuable understanding of the financial situation South Africans find themselves in and the influences thereof.

As the sample included at least 50% of respondents above the age of 40, the results could be skewed toward factors influencing this age group. Factors affecting different age groups could be investigated in order to identify the ideal time to start initiatives to increase financial literacy as well as if the factors influencing financial literacy differ across the various generations.

Similarly, understanding the transitions of adolescents into adulthood and the financial influences when adults get married, effectively joining separate financial predispositions in the creation of a new financial unit will provide beneficial information to direct efforts towards increasing levels of financial literacy and financial security of households.

Chapter 8: References

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Annexure A

Welcome to My Survey

I am conducting research on what socialisation factors impact financial behaviour. To that end, you are requested to complete the survey below. This will help us to better understand what factors have influenced the financial decision making process. It should take no more than 15 minutes of your time. Your participation is voluntary and all data collected will be on an anonymous basis. The data will be kept confidential. By completing the survey, you indicate that you have voluntarily participated in this survey. If you have any concerns, please contact my supervisor or myself.

Researcher: N.Sallie

Gibs449102@mygibs.co.za

083 469 7119

Supervisor: A.Prangley

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1. What is your gender?

Male

Female

2. What is your race?

Black

Coloured

Indian

White

3. What is your age?

18 - 25

26 - 30

31 - 35

36 - 40

40 +

4. How many people currently live in your household?

1 - 4

5 - 9

10 +

5. How much money do YOU personally earn per month?

Less than R 10 000

R10 001 - R20 000

R20 001 - R30 000

R30 001 +

6. Who is responsible for the day to day money management decisions in your household?

Self

Partner

Parent

Other

7. What is the highest level of education you have completed?

Primary School

Secondary School

Technical College

Diploma

Degree

8. I consider myself financially literate

Strongly Disagree

Disagree

Agree

Strongly Agree

9. I consider myself financially secure

Strongly Disagree

Disagree

Agree

Strongly Agree

10. I consider myself to be over indebted

Strongly Disagree

Disagree

Agree

Strongly Agree

11. My income exceeds my expenses

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. My father has been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. My mother has been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. My friends have been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. My exposure to multi media has influenced my financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. If I had exposure to financial management courses at a tertiary institution, I would make better financial choices

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. I would be a more selective consumer if my financial knowledge were better

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. If Financial literacy was offered in grades 10-12 at schools I would support this

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. If Financial literacy was offered in grade 10-12 at schools , it would make a positive difference to the individuals financial position

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. If Financial literacy was offered in grade 10-12 at schools , it would reduce the level of inequality in our communities

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Annexure B

Welcome to My Financial Socialisation Survey

I am conducting research on what socialisation factors impact financial behaviour. To that end, you are requested to complete the survey below. This will help us to better understand what factors have influenced the financial decision making process. It should take no more than 15 minutes of your time. Your participation is voluntary and all data collected will be on an anonymous basis. The data will be kept confidential. By completing the survey, you indicate that you have voluntarily participated in this survey. If you have any concerns, please contact my supervisor or myself.

Researcher: N.Sallie

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Supervisor: A.Prangley

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1. I consider myself financially literate (a combination of awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions)

Strongly Disagree

Disagree

Agree

Strongly Agree

2. I consider myself financially secure (should financial circumstances change in the future (e.g., losing a job) I will be able to meet both basic needs as well as future needs based on my current economic situation)

Strongly Disagree

Disagree

Agree

Strongly Agree

3. I consider myself to be over indebted

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. My income exceeds my expenses

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. My father has been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. My mother has been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. My grandparents have been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. My friends and peers have been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. My work colleagues have been the greatest influence on how I make financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. My exposure to Internet has influenced my financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. My exposure to advertisements concerning financial choices and products has influenced my financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Reading magazines and books have influenced my financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Television has influenced my financial decisions

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14.If I had exposure to financial management courses at a tertiary institution, I would make better financial choices

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15.I would be a more selective consumer if my financial knowledge were better

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16.I would be wealthier if I had received financial literacy earlier in my career

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17.If Financial literacy was offered in grades 10-12 at schools I would support this

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18.If Financial literacy was offered in grade 10-12 at schools , it would make a positive difference to the individuals financial position

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19.If Financial literacy was offered in grades 10-12 at schools , it would reduce the States burden to provide social security

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20.If Financial literacy was offered in grade 10-12 at schools , it would reduce the level of inequality in our communities

Strongly Disagree	Disagree	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21.What is your gender?

Male	Female
<input type="radio"/>	<input type="radio"/>

22. What is your race?

Black	Coloured	Indian	White
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22.What is your age?

18 - 25	26 - 30	31 - 35	36 - 40	40 +
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23.How many people currently live in your household?

1 - 4	5 - 9	10 +
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. How much money do YOU personally earn per month?

Less than R 10 000	R10 001 - R20 000	R20 001 - R30 000	R30 001 +
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Which of the following best describes your current relationship status?

- Married
- Widowed
- Divorced
- Separated
- In a domestic partnership or civil union
- Single, but cohabiting with a significant other
- Single, never married

26. Who is responsible for the day to day money management decisions in your household?

Self	Partner	Parent	Other
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. What is the highest level of education you have completed?

Primary School	Secondary School	Technical College	Diploma	Degree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. What formal financial education have you had?

None	Primary Level (less than 6 months)	Secondary Level (6 to 11 months)	Tertiary Level (12 months +)
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Annexure C

Frequency tables for Demographic factors

What is your gender?					
					Cumulative
					Percent
		Frequency	Percent	Valid Percent	
Valid	Female	159	53.0	53.5	53.5
	Male	138	46.0	46.5	100.0
	Total	297	99.0	100.0	
Missing	1	3	1.0		
Total		300	100.0		

What is your race?					
					Cumulative
					Percent
		Frequency	Percent	Valid Percent	
Valid	Black	78	26.0	26.3	26.3
	Coloured	52	17.3	17.5	43.8
	Indian	73	24.3	24.6	68.4
	White	94	31.3	31.6	100.0
	Total	297	99.0	100.0	
Missing	1	3	1.0		
Total		300	100.0		

Which of the following best describes your current relationship status?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Divorced	29	9.7	9.7	9.7
	In a domestic partnership or civil union	14	4.7	4.7	14.4
	Married	158	52.7	52.8	67.2
	Separated	7	2.3	2.3	69.6
	Single, but cohabiting with significant other	21	7.0	7.0	76.6
	Single, never married	66	22.0	22.1	98.7
	Widowed	4	1.3	1.3	100.0
	Total	299	99.7	100.0	
Missing	1	1	.3		
Total		300	100.0		

What is your age?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18 - 25	24	8.0	8.0	8.0
	26 - 30	39	13.0	13.0	21.1
	31 - 35	36	12.0	12.0	33.1
	36 - 40	52	17.3	17.4	50.5
	40	148	49.3	49.5	100.0
	Total	299	99.7	100.0	
Missing	1	1	.3		
Total		300	100.0		

Education				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Degree	89	29.7	29.7	29.7
	Diploma	98	32.7	32.7	62.3
	Secondary School	87	29.0	29.0	91.3
	Technical College	26	8.7	8.7	100.0
	Total	300	100.0	100.0	

How many people currently live in your household?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 4	240	80.0	81.4	81.4
	5-9	55	18.3	18.6	100.0
	Total	295	98.3	100.0	
Missing	1	5	1.7		
Total		300	100.0		

How much money do YOU personally earn per month?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than R 10 000	23	7.7	7.8	7.8
	R10 001 - R20 000	95	31.7	32.1	39.9
	R20 001 - R30 000	67	22.3	22.6	62.5
	R30 001 +	111	37.0	37.5	100.0
	Total	296	98.7	100.0	
Missing	1	4	1.3		
Total		300	100.0		

Who is responsible for the day to day money management decisions in your household

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	21	7.0	7.0	7.0
	Parent	10	3.3	3.4	10.4
	Partner	21	7.0	7.0	17.4
	Self	246	82.0	82.6	100.0
	Total	298	99.3	100.0	
Missing	1	2	.7		
Total		300	100.0		

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	98	32.7	46.4	46.4
	Secondary School	87	29.0	41.2	87.7
	Technical College	26	8.7	12.3	100.0
	Total	211	70.3	100.0	
Missing	Degree	89	29.7		
Total		300	100.0		

Financial education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	83	27.7	27.9	27.9
	Primary Level (Less than 6 months)	24	8.0	8.1	35.9
	Secondary Level (635 to 11 months)		11.7	11.7	47.7
	Tertiary Level (12156 months +)		52.0	52.3	100.0
	Total	298	99.3	100.0	
Missing	1	2	.7		
Total		300	100.0		

Annexure D
Frequency Table for balance of questions

I consider myself financially literate					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	8	2.7	2.7	2.7
	Disagree	16	5.3	5.4	8.0
	Agree	190	63.3	63.5	71.6
	Strongly agree	85	28.3	28.4	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

I consider myself financially secure					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	16	5.3	5.3	5.3
	Disagree	99	33.0	33.0	38.3
	Agree	160	53.3	53.3	91.7
	Strongly agree	25	8.3	8.3	100.0
	Total	300	100.0	100.0	

I consider Myself Over indebted					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	62	20.7	20.7	20.7
	Disagree	153	51.0	51.2	71.9
	Agree	69	23.0	23.1	95.0
	Strongly agree	15	5.0	5.0	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

My income exceeds my expenses					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	34	11.3	11.4	11.4
	Disagree	120	40.0	40.1	51.5
	Agree	112	37.3	37.5	89.0
	Strongly agree	33	11.0	11.0	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

My father has been the greatest influence on how I make financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1.0	1.0	1.0
	Strongly disagree	71	23.7	23.7	24.7
	Disagree	122	40.7	40.7	65.3
	Agree	77	25.7	25.7	91.0
	Strongly agree	27	9.0	9.0	100.0
	Total	300	100.0	100.0	

My mother has been the greatest influence on how I make financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	43	14.3	14.5	14.5
	Disagree	124	41.3	41.9	56.4
	Agree	85	28.3	28.7	85.1
	Strongly agree	44	14.7	14.9	100.0
	Total	296	98.7	100.0	
Missing	System	4	1.3		
Total		300	100.0		

My grandparents has been the greatest influence on how I make financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	90	30.0	30.4	30.4
	Disagree	159	53.0	53.7	84.1
	Agree	35	11.7	11.8	95.9
	Strongly agree	12	4.0	4.1	100.0
	Total	296	98.7	100.0	
Missing	System	4	1.3		
Total		300	100.0		

My friends and peers has been the greatest influence on how I make financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	54	18.0	18.4	18.4
	Disagree	152	50.7	51.9	70.3
	Agree	77	25.7	26.3	96.6
	Strongly agree	10	3.3	3.4	100.0
	Total	293	97.7	100.0	
Missing	System	7	2.3		
Total		300	100.0		

My work colleagues has been the greatest influence on how I make financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	60	20.0	20.3	20.3
	Disagree	155	51.7	52.5	72.9
	Agree	74	24.7	25.1	98.0
	Strongly agree	6	2.0	2.0	100.0
	Total	295	98.3	100.0	
Missing	System	5	1.7		
Total		300	100.0		

My exposure to Internet has influenced my financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	24	8.0	8.2	8.2
	Disagree	108	36.0	36.7	44.9
	Agree	150	50.0	51.0	95.9
	Strongly agree	12	4.0	4.1	100.0
	Total	294	98.0	100.0	
Missing	System	6	2.0		
Total		300	100.0		

My exposure to advertisements concerning financial choices and products has influenced my financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	17	5.7	5.7	5.7
	Disagree	107	35.7	36.1	41.9
	Agree	159	53.0	53.7	95.6
	Strongly agree	13	4.3	4.4	100.0
	Total	296	98.7	100.0	
Missing	System	4	1.3		
Total		300	100.0		

Reading Magazines and watching TV has influenced my financial decisions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	2.3	2.3	2.3
	Disagree	82	27.3	27.4	29.8
	Agree	185	61.7	61.9	91.6
	Strongly agree	25	8.3	8.4	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

If I had exposure to financial literacy courses at school, I would make better financial choices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	19	6.3	6.4	6.4
	Disagree	132	44.0	44.4	50.8
	Agree	136	45.3	45.8	96.6
	Strongly agree	10	3.3	3.4	100.0
	Total	297	99.0	100.0	
Missing	System	3	1.0		
Total		300	100.0		

If I had exposure to financial literacy courses at tertiary institution, I would make better financial choices

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	8	2.7	2.7	2.7
	Disagree	51	17.0	17.1	19.8
	Agree	156	52.0	52.3	72.1
	Strongly agree	83	27.7	27.9	100.0
	Total	298	99.3	100.0	
Missing	System	2	.7		
Total		300	100.0		

I would be a more selective consumer if my financial knowledge were better

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	2.3	2.3	2.3
	Disagree	60	20.0	20.1	22.4
	Agree	172	57.3	57.5	79.9
	Strongly agree	60	20.0	20.1	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

I would be wealthier if I had received financial literacy earlier in my career					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	2.3	2.3	2.3
	Disagree	72	24.0	24.1	26.4
	Agree	137	45.7	45.8	72.2
	Strongly agree	83	27.7	27.8	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

If Financial literacy was offered in grade 10-12 at schools would you support this					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	.7	.7	.7
	Disagree	9	3.0	3.0	3.7
	Agree	118	39.3	39.9	43.6
	Strongly agree	167	55.7	56.4	100.0
	Total	296	98.7	100.0	
Missing	System	4	1.3		
Total		300	100.0		

If Financial literacy was offered in grade 10-12 at schools , do you believe that it would make a positive difference to the individuals financial position					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	.3	.3	.3
	Disagree	13	4.3	4.4	4.7
	Agree	126	42.0	42.7	47.5
	Strongly agree	155	51.7	52.5	100.0
	Total	295	98.3	100.0	
Missing	System	5	1.7		
Total		300	100.0		

If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the States burden to provide social security

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	.3	.3	.3
	Disagree	41	13.7	13.8	14.1
	Agree	133	44.3	44.8	58.9
	Strongly agree	122	40.7	41.1	100.0
	Total	297	99.0	100.0	
Missing	System	3	1.0		
Total		300	100.0		

If Financial literacy was offered in grade 10-12 at schools , do you believe that it would reduce the level of inequality in our communities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	10	3.3	3.3	3.3
	Disagree	74	24.7	24.7	28.1
	Agree	129	43.0	43.1	71.2
	Strongly agree	86	28.7	28.8	100.0
	Total	299	99.7	100.0	
Missing	System	1	.3		
Total		300	100.0		

Annexure E

Chi Square and Cross Tabs for Non-significant variables

I consider myself financially literate * What is your gender?

		What is your gender?		
		Female	Male	Total
I consider myself financially literate	Disagree	Count 13	11	24
		% within What is your gender? 8.2%	8.0%	8.1%
	Agree	Count 145	127	272
		% within What is your gender? 91.8%	92.0%	91.9%
Total		Count 158	138	296
		% within What is your gender? 100.0%	100.0%	100.0%

Chi-Square Tests						
	Value	Df	Asymp. (2-sided)	Sig. Exact sided)	Sig. (2-Exact (1-sided)	Sig.
Pearson Chi-Square	.007 ^a	1	.936			
Continuity Correction ^b	.000	1	1.000			
Likelihood Ratio	.007	1	.936			
Fisher's Exact Test				1.000	.554	
Linear-by-Linear Association	.006	1	.936			
N of Valid Cases	296					

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.005	.936
Cramer's V	.005	.936
N of Valid Cases	296	

I consider myself financially secure * What is your gender?

		What is your gender?		
		Female	Male	Total
I consider myself financially secure	Disagree	Count 69	45	114
		% within What is your gender? 43.4%	32.6%	38.4%
	Agree	Count 90	93	183
		% within What is your gender? 56.6%	67.4%	61.6%
Total		Count 159	138	297
		% within What is your gender? 100.0%	100.0%	100.0%

		Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
	Value	df		
Pearson Chi-Square	3.635 ^a	1	.057	
Continuity Correction ^b	3.193	1	.074	
Likelihood Ratio	3.654	1	.056	
Fisher's Exact Test			.073	.037
Linear-by-Linear Association	3.623	1	.057	
N of Valid Cases	297			

		Value	Approx. Sig.
Nominal by Nominal	Phi	.111	.057
	Cramer's V	.111	.057
N of Valid Cases		297	

I consider myself financially literate * What is your race?

		What is your race?			
		Black	Coloured	Indian	
I consider myself financially literate	Disagree	Count	5	6	8
		% within What is your race?	6.5%	11.5%	11.0%
	Agree	Count	72	46	65
		% within What is your race?	93.5%	88.5%	89.0%
Total	Count	77	52	73	
	% within What is your race?	100.0%	100.0%	100.0%	

		What is your race?		
		White	Total	
I consider myself financially literate	Disagree	Count	5	24
		% within What is your race?	5.3%	8.1%
	Agree	Count	89	272
		% within What is your race?	94.7%	91.9%
Total	Count	94	296	
	% within What is your race?	100.0%	100.0%	

Chi-Square Tests				
	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	2.868 ^a	3	.412	
Likelihood Ratio	2.851	3	.415	
Linear-by-Linear Association	.120	1	.729	
N of Valid Cases	296			

Symmetric Measures		
	Value	Approx. Sig.

Nominal by Nominal Phi	.098	.412
Cramer's V	.098	.412
N of Valid Cases	296	

I consider myself financially literate * What is your age?

		What is your age?			
		18 - 25	26 - 30	31 - 35	
I consider myself financially literate	Disagree	Count	1	2	2
		% within What is your age?	4.2%	5.3%	5.6%
	Agree	Count	23	36	34
		% within What is your age?	95.8%	94.7%	94.4%
Total		Count	24	38	36
		% within What is your age?	100.0%	100.0%	100.0%

		What is your age?			
		36 - 40	40		
I consider myself financially literate	Disagree	Count	7	12	24
		% within What is your age?	13.5%	8.1%	8.1%
	Agree	Count	45	136	274
		% within What is your age?	86.5%	91.9%	91.9%
Total		Count	52	148	298
		% within What is your age?	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	3.247 ^a	4	.517	
Likelihood Ratio	3.112	4	.539	
Linear-by-Linear Association	.855	1	.355	
N of Valid Cases	298			

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.104	.517
Cramer's V	.104	.517
N of Valid Cases	298	

I consider myself financially secure * What is your age?

		What is your age?			
		18 - 25	26 - 30	31 - 35	
I consider myself financially secure	Disagree	Count	13	12	11
		% within What is your age?	54.2%	30.8%	30.6%
	Agree	Count	11	27	25
		% within What is your age?	45.8%	69.2%	69.4%
Total		Count	24	39	36
		% within What is your age?	100.0%	100.0%	100.0%

				What is your age?		
				36 - 40	40	
I consider myself financially secure	Disagree	Count	24	55	115	
		% within What is your age?	46.2%	37.2%	38.5%	
	Agree	Count	28	93	184	
		% within What is your age?	53.8%	62.8%	61.5%	
Total		Count	52	148	299	
		% within What is your age?	100.0%	100.0%	100.0%	

Chi-Square Tests				
	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	5.832 ^a	4	.212	
Likelihood Ratio	5.786	4	.216	
Linear-by-Linear Association	.147	1	.702	
N of Valid Cases	299			

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.140	.212
Cramer's V	.140	.212
N of Valid Cases	299	

I consider myself financially literate * How many people currently live in your household?

		How many people currently live in your household?	
		1 - 4	5-9
I consider myself financially literate	Disagree	Count 17 % within How many people currently live in your household? 7.1%	6 10.9%
	Agree	Count 222 % within How many people currently live in your household? 92.9%	49 89.1%
Total		Count 239 % within How many people currently live in your household? 100.0%	55 100.0%

		Total
I consider myself financially literate	Disagree	Count 23 % within How many people currently live in your household? 7.8%
	Agree	Count 271 % within How many people currently live in your household? 92.2%
Total		Count 294 % within How many people currently live in your household? 100.0%

Chi-Square Tests						
	Value	df	Asymp. (2-sided)	Sig.Exact sided)	Sig. (2-Exact sided)	Sig. (1- sided)
Pearson Chi-Square	.893 ^a	1	.345			
Continuity Correction ^b	.445	1	.505			
Likelihood Ratio	.825	1	.364			
Fisher's Exact Test				.401	.244	
Linear-by-Linear Association	.890	1	.345			
N of Valid Cases	294					

Symmetric Measures

	Value	Approx. Sig.
Nominal by Nominal Phi	-.055	.345
Cramer's V	.055	.345
N of Valid Cases	294	

I consider myself financially secure * How many people currently live in your household?

Crosstab				
			How many people currently live in your household?	
			1 - 4	5-9
I consider myself financially secure	Disagree	Count	92	21
		% within How many people currently live in your household?	38.3%	38.2%
	Agree	Count	148	34
		% within How many people currently live in your household?	61.7%	61.8%
Total	Count	240	55	
	% within How many people currently live in your household?	100.0%	100.0%	

Crosstab			
			Total
I consider myself financially secure	Disagree	Count	113
		% within How many people currently live in your household?	38.3%
	Agree	Count	182
		% within How many people currently live in your household?	61.7%
Total		Count	295
		% within How many people currently live in your household?	100.0%

Chi-Square Tests						
	Value	df	Asymp. (2-sided)	Sig. Exact sided)	Sig. (2-Exact sided)	Sig. (1-sided)
Pearson Chi-Square	.000 ^a	1	.983			
Continuity Correction ^b	.000	1	1.000			
Likelihood Ratio	.000	1	.983			
Fisher's Exact Test				1.000	.556	
Linear-by-Linear Association	.000	1	.983			
N of Valid Cases	295					

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.001	.983
Cramer's V	.001	.983
N of Valid Cases	295	

I consider myself financially literate * Who is responsible for the day to day money management decisions in your household

		Who is responsible for the day to day money management decisions in your household		
		Other	Parent	
I consider myself financially literate	Disagree	Count	1	1
		% within Who is responsible for the day to day money management decisions in your household	5.0%	10.0%
	Agree	Count	19	9
		% within Who is responsible for the day to day money management decisions in your household	95.0%	90.0%
Total		Count	20	10
		% within Who is responsible for the day to day money management decisions in your household	100.0%	100.0%

		Who is responsible for the day to day money management decisions in your household		
		Partner	Self	
I consider myself financially literate	Disagree	Count	2	20
		% within Who is responsible for the day to day money management decisions in your household	9.5%	8.1%
	Agree	Count	19	226
		% within Who is responsible for the day to day money management decisions in your household	90.5%	91.9%
Total		Count	21	246
		% within Who is responsible for the day to day money management decisions in your household	100.0%	100.0%

Crosstab			Total
I consider myself financially literate	Disagree	Count	24
		% within Who is responsible for the day to day money management decisions in your household	8.1%
	Agree	Count	273
		% within Who is responsible for the day to day money management decisions in your household	91.9%
Total		Count	297
		% within Who is responsible for the day to day money management decisions in your household	100.0%

Chi-Square Tests				
	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	.365 ^a	3	.947	
Likelihood Ratio	.396	3	.941	
Linear-by-Linear Association	.088	1	.767	
N of Valid Cases	297			

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.035	.947
Cramer's V	.035	.947
N of Valid Cases	297	

I consider myself financially secure * Who is responsible for the day to day money management decisions in your household

		Who is responsible for the day to day money management decisions in your household	
		Other	Parent
I consider myself financially secure	Disagree	Count 7 % within Who is 33.3%	4 40.0%
	Agree	Count 14 % within Who is 66.7%	6 60.0%
Total		Count 21 % within Who is 100.0%	10 100.0%

		Who is responsible for the day to day money management decisions in your household	
		Partner	Self
I consider myself financially secure	Disagree	Count 4 % within Who is 19.0%	100 40.7%
	Agree	Count 17 % within Who is 81.0%	146 59.3%
Total		Count 21 % within Who is 100.0%	246 100.0%

Crosstab			
			Total
I consider myself financially secure	Disagree	Count	115
		% within Who is responsible for the day to day money management decisions in your household	38.6%
	Agree	Count	183
		% within Who is responsible for the day to day money management decisions in your household	61.4%
Total		Count	298
		% within Who is responsible for the day to day money management decisions in your household	100.0%

Chi-Square Tests				
	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	4.078 ^a	3	.253	
Likelihood Ratio	4.441	3	.218	
Linear-by-Linear Association	1.002	1	.317	
N of Valid Cases	298			

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.117	.253
Cramer's V	.117	.253
N of Valid Cases	298	

I consider myself financially literate * Education

		Education			
		Degree	Diploma	Secondary School	
I consider myself financially literate	Disagree	Count	4	7	10
		% within Education	4.5%	7.1%	11.5%
	Agree	Count	84	91	77
		% within Education	95.5%	92.9%	88.5%
Total		Count	88	98	87
		% within Education	100.0%	100.0%	100.0%

		Education		
		Technical College	Total	
I consider myself financially literate	Disagree	Count	3	24
		% within Education	11.5%	8.0%
	Agree	Count	23	275
		% within Education	88.5%	92.0%
Total		Count	26	299
		% within Education	100.0%	100.0%

Chi-Square Tests				
	Value	df	Asymp. (2-sided)	Sig.
Pearson Chi-Square	3.400 ^a	3	.334	
Likelihood Ratio	3.450	3	.327	
Linear-by-Linear Association	3.122	1	.077	
N of Valid Cases	299			

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.107	.334
Cramer's V	.107	.334
N of Valid Cases	299	

I consider myself financially literate * Financial education

		Financial education	
		None	Primary Level (Less than 6 months)
I consider myself financially literate	Disagree	Count 10 % within Financial education 12.2%	2 8.3%
	Agree	Count 72 % within Financial education 87.8%	22 91.7%
Total		Count 82 % within Financial education 100.0%	24 100.0%

		Financial education	
		Secondary Level (6 to 11 months)	Tertiary Level (12 months +)
I consider myself financially literate	Disagree	Count 3 % within Financial education 8.6%	9 5.8%
	Agree	Count 32 % within Financial education 91.4%	147 94.2%
Total		Count 35 % within Financial education 100.0%	156 100.0%

		Total	
		Count	% within Financial education
I consider myself financially literate	Disagree	24 8.1%	
	Agree	273 91.9%	
Total		297 100.0%	

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.004 ^a	3	.391
Likelihood Ratio	2.887	3	.409
Linear-by-Linear Association	2.884	1	.089
N of Valid Cases	297		

Symmetric Measures		
	Value	Approx. Sig.
Nominal by Nominal Phi	.101	.391
Cramer's V	.101	.391
N of Valid Cases	297	

Annexure F

Gordon Institute of Business Science

University of Pretoria

Dear Ms Nazley Sallie

Protocol Number: Temp2015-00978

Title: **The impact of socialisation factors on financial literacy amongst employees in the financial services**

industry.

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

You are therefore allowed to continue collecting your data.

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

Kind Regards,

GIBS Ethics Administrator