

**THE INFLUENCE OF PARENTAL FINANCIAL SOCIALISATION ON  
FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL  
AND LOW-INCOME AREAS IN SOUTH AFRICA**

by

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### **THE INFLUENCE OF PARENTAL FINANCIAL SOCIALISATION ON FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL AND LOW-INCOME AREAS IN SOUTH AFRICA**

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I further declare that I have not previously submitted this work or part of it, for examination at Unisa for another qualification or at any other higher education institution.



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I am an accredited editor with the University of Johannesburg, University of Stellenbosch Business School, NWU, UP, UCT, and GIBS, and my clients include the United Nations, Absa, FNB, Takealot, and various other universities and organisations in South Africa and Namibia.

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Teresa Kapp

## **ABSTRACT**

Parental financial socialisation is becoming increasingly important globally, due to low levels of financial literacy amongst young adults, especially those in developing countries, rural and low-income areas, and black communities. However, studies in parental financial socialisation remain scant. Therefore, this study was aimed at adding to the knowledge in this field by investigating the influence of parental financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa. This study followed a quantitative research approach and survey design, where data were collected through questionnaires administered to young black African adults in Fetakgomo Tubatse municipality in Limpopo province and Intsika Yethu municipality in Eastern Cape province, because these municipalities met the inclusion criteria, being the most rural and low-income areas in South Africa.

The data were analysed through descriptive statistics, factor analysis, correlation analysis, analysis of variance (ANOVA), regression analysis, moderated regression analysis, and structural equation modelling (SEM). The results showed that young black African adults are not financially literate. Furthermore, the results indicated that young black African adults were financially socialised by their parents.

The results further showed that there is a significant difference in parental financial socialisation across socioeconomic status; there is no significant difference in parental financial socialisation according to the child's gender; there is a significant difference in parental financial socialisation across parental gender; there is a significant negative relationship between culture and parental financial socialisation; and there is a significant positive relationship between parenting style and parental financial socialisation. Furthermore, an empirical result of the study is that there is a significant positive relationship between parental financial socialisation and the young adult's financial literacy.

This study is amongst the first to investigate the moderated relationship between parental financial socialisation, financial literacy, social structural factors, and individual factors. It was found that the relationship between parental financial socialisation and the young adult's financial literacy is moderated by social structural factors. It was found that individual factors do not moderate the relationship between parental financial socialisation and the young adult's financial literacy. The results of the SEM underpin the proposed Parental Financial Socialisation Framework. This study offers recommendations to improve the financial literacy of young black African adults.

**Keywords:** financial literacy; financial socialisation; parents; young black African adults; rural and low-income area; Fetakgomo Tubatse; Intsika Yethu; financial behaviour; financial knowledge; financial attitude; financial decision-making

## MANWELEDZO

Kuitele kune vhathu vha funzwa nga vhabebi vhavho nga ha masheleni na matshilisano ku khou nana u vha kwa ndeme lifhasini lothe, nga nthani ha levele ya fhasi ya pfunzo ya zwa masheleni kha vhaaluwa vhaswa, nga maanda avho vha re kha mashango ane a kha dibvelela, vha mbuelo ya fhasi na vha vhuponi ha mahayani, na zwitshavha zwa vharema. Naho zwo ralo, ngudo dza nga ha kuitele kune vhathu vha funzwa nga vhabebi vhavho nga ha masheleni na matshilisano ku dzula ku songo lingana. Nga zwenezwo, ngudo heyi yo livhiswa kha u engedza ndivho kha heli sia nga u sengulusa thuthuwedzo ya kuitele kune vhathu vha funzwa nga vhabebi vhavho nga ha masheleni na matshilisano nga ha pfunzo ya zwa masheleni kha vhaswa vha vharema vha Afrika vha mbuelo ya fhasi vhuponi ha mahayani Afrika Tshipembe. Ngudo heyi yo tevhedza ndila ya thodisiso ya khwanthethivi na nyolo ya savei, he data ya kuvhanganyiwa nga kha mbudzisambekanywa dzo livhiswaho kha vhaswa vhahulwane vha vharema vha Afrika masipalani wa Fetakgomo Tubatse ngei vunduni la Limpopo na masipalani wa Intsika Yethu vunduni la Eastern Cape, ngauri mimasipala heyi yo swikelela thodea ya u katelwa, u vha vhupo ha mahayani tshothe na mbuelo ya fhasi Afrika Tshipembe.

Data yo saukanywa hu tshi shumiswa zwitatisitika zwa mbuletshedzo, zwiataluli zwa u saukanya, u saukanya vhushaka, u saukanya phambano (ANOVA), u saukanya u fhungudzea, u saukanya u sedzuluswa hafhu ha u fhungudzea, tshiedziswa tsha u vhambedza ndinganyiso (SEM). Mvelelo dzo sumbedza uri vhaswa vha vharema vha Afrika a vha na pfunzo ya zwa masheni. U i sa phanda kha zwenezwo, mvelelo dzo sumbedzisa uri vhaswa vha vharema vha Afrika Tshipembe vho vha vha tshi funzwa nga vhabebi vhavho.

Mvelelo dzo isa phanda na u sumbedzisa uri hu na phambano khulwane nga maanda kha pfunzo ya masheleni nga vhabebi kha zwiimo zwothe zwa ikonomi ya matshilisano, a hu na phambano khulwane kha pfunzo ya masheleni nga vhabebi zwi tshi da kha mbeu ya nwana; hu na phambano khulwanesa kha pfunzo ya masheleni nga vhabebi kha mbeu dzothe dza vhabebi; hu na vhushaka vhu si havhudi vhuhulwanesa vhukati ha mvelele na pfunzo ya zwa masheleni nga mubebi; na uri hu na vhushaka havhudi vhukati ha ndila ya kualusele na pfunzo ya zwa masheleni nga mubebi. U isa phanda ngauralo, mvelelo dza u sedza dza ngudo ndi dza uri hu na vhushaka havhudi ha ndeme vhukati ha pfunzo ya zwa masheleni nga mubebi; na pfunzo ya zwa masheleni ya vhaswa vha vhaaluwa.

Ngudo vhukati ha tsedzuluso ya u sedzulusa vhushaka vhu re vhukati ha pfunzo ya zwa masheleni nga mubebi, pfunzo ya zwa masheleni, zwiataluli zwa zwivhumbeo zwa matshilisano,

na zwiṭaluli zwa muthu nga muthu. Ho wanuluswa uri vhushaka vhukati ha pfunzo ya zwa masheleni nga mubebi na pfunzo ya zwa masheleni ya vhaswa vha vhaaluwa i vhukati kha zwiṭaluli zwa tshivhumbeo tsha matshilisano. Ho wanuluswa uri zwiṭaluli zwa muthu nga muthu a zwi vhi vhukati ha vhushaka vhukati ha pfunzo ya zwa masheleni nga mubebi na pfunzo ya zwa masheleni ya muswa wa mualuwa. Mvelelo dza SEM dzo kwaṭhisedza u dzinginywa ha Furemiweke ya Pfunzo ya zwa Masheleni nga Mubebi. Ngudo heyi yo ṅetshedza themendelo u khwinisa pfunzo ya zwa masheleni ya vhaaluwa vha vhaswa vha vharema vha Afrika.

**Maipfi a ndeme:** pfunzo ya zwa masheleni; u wana na u bveledzisa ṅdivho ya zwa masheleni vhabebi, mualuwa wa muswa wa murema wa Afrika, vhupo ha mahayani na mbuelo ya fhasi; Fetakgomo Tubatse; Intsika Yethu; vhuḡifari ha zwa masheleni; ṅdivho ya zwa masheleni; vuvha ha zwa masheleni; tsheo ya zwa masheleni.

## **NKOMISI LOWU NGA NA MONGO WA NDZAVISISO**

Ku dyondzisiwa hi vatswari hi swa timali swi ya swi va swa nkoka eka misava hinkwayo hikokwalaho ka leswo vantshwa a va na vutivi hi swa timali, ngopfu ngopfu eka matiko lama ya ha hluvukaku, eka tindhawu ta le makaya na le ka tindhawu ta vanhu lava va holaku miholo yitsongo na le ka tindhawu ta vaaki ta vantima. Kambe, mindzavisiso hi swa vudyondzisi hi swa timali eka vatswari a yi kona kahle. Hikokwalaho, ndzavisisi lowu wu nga xikongomelo xa ku ngetela eka vutivi eka xiyenge lexi hi ku endla ndzavisiso hi nkucetelo wo dyondzisa vatswari hi swa vutivi bya swa timali eka vanhu lavakulu va vantima va Maafrica eka tindhawu ta le makaya na lava va holaku katsongo eAfrica Dzonga. Ndzavisiso lowu wu landzelela fambiselo ra quantitative research na dizayini ya savheyi laha ku hlengeletiwaka kona vutivi hi nongonoko wa swivutiso leswi tsariweke ku na questionnaire eka vanhu lavakulu va vantima va Maafrica eka masipala wa le Fetakgomo Tubatse eka provhinsi ya Limpopo na le ka masipala wa le Intsika Yethu eka provhinsi ya Kapa Vuxa, hikuva vamasipala lava a va hlanganyetana na khrayitheriya, ku nga ku va tindhawu ta le makaya laha vanhu va holaku katsongo eAfrica Dzonga.

Vutivi byi xopaxopiwile hi ku tirhisa descriptive statistics, factor analysis, correlation analysis na analysis of variance (ANOVA), regression analysis, moderated regression analysis, na structural equation modelling (SEM). Vuyelo byi kombise leswo vanhu lavakulu va Maafrica a va na vutivi hi swa timali. Nakambe, vuyelo byi kombise leswo vanhu lavantshwa va vantima va Maafrica va dyondzisiwe hi swa timali hi vatswari va vona.

Vuyelo byi tlhele byi kombisa leswo ku na ku hambana kukulu eka ku dyondzisiwa hi vatswari hi swa timali eka swiyenge swo hambana swa ta nhlayiseko wa vanhu na ikhonomi; a ku na ku hambana kukulu hi ku dyondzisiwa hi vatswari hi swa timali eka n'wana ku ya hi rimbewu; ku na ku hambana kukulu hi ku dyondzisiwa hi vatswari hi swa timali eka rimbewu ro hambana ra vatswari; ku na vuxakelani lebyi nga ri ku lebyinene exikarhi ka mfuwo na madyondziselo ya vatswari hi swa timali; kasi ku na vuxakelani lebyinene eka switayele swa vatswari na madyondziselo ya vatswari hi swa timali. Nakambe, vuyelo bya vumbhoni bya ndzavisiso hi leswo ku na vuxakelani lebyinene exikarhi ka madyondziselo ya vatswari hi swa timali na vutivi bya lavantshwa hi swa timali.

Ndzavisiso lowu hi wun'wana wa mindzavisiso yo sungula ya vuxakelani bya ku dyondzisiwa hi vatswari hi swa timali, vutivi hi swa timali, na tifekthara ta swa nhlayisano wa vanhu na tifekthara ta munhu hi wun'wewun'we. Ku kumeke leswo vuxakelani bya swa ku dyondzisiwa hi vatswari hi swa timali na vutivi hi swa timali eka vanhu lavantshwa, swi pfunetiwa hi tifekthara ta xivumbeko

xa ntshamisano wa vanhu. Ku kumeke leswo tifekehara ta munhu hi wun'wewunwe a swi pfunetiwe ngopfu hi vuxakeleni bya swa ku dyondzisiwa hi vatswari hi swa timali na vutivi bya swa timali eka vanhu lavantshwa. Vuyelo bya SEM lebyi seketeriweke hi rimba leri pimaneyetiwaka ra Parental Financial Socialisation Framework. Ndzavisiso wu bumabumela ku antswisiwa ka dyondzo hi swa timali eka vanhu lavantshwa va vantima va Mafrika.

**Marito ya nkoka:** dyondzo hi swa timali; ku dyondzisiwa hi swa timali; vatswari; vanhu lavantshwa va vantima va Mafrika; tindhawu ta le makaya na tindhawu laha vanhu va holaku miholo yitsongo; Fetakgomo Tubatse; Intsika Yethu; matikhomelo hi swa timali; vutivi hi swa timali; mavonelo hi swa timali; ku endla swiboho hi swa timali

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## LIST OF ACRONYMS AND ABBREVIATIONS

ADF	-	asymptotic distribution on free
AGFI	-	adjusted goodness-of-fit index
AIC	-	Akaike information criterion
AIDS	-	Acquired Immunodeficiency Syndrome
AMOS	-	analysis of moment structures
ANOVA	-	analysis of variance
ATM	-	automated teller machine
CAIC	-	consistent Akaike information criterion
CFA	-	confirmatory factor analysis
CFI	-	comparative fit index
EC	-	Eastern Cape
ECVI	-	expected cross-validation index
EFA	-	exploratory factor analysis
FFFL	-	financial fitness for life
FFS	-	family financial socialisation
FSA	-	Financial Services Authority
GFI	-	goodness-of-fit index
GLS	-	generalised least squares
HIV	-	Human Immunodeficiency Virus
IDP	-	Integrated Development Plan
INFE	-	International Network on Financial Education
KMO	-	Kaiser-Meyer-Olkin
KZN	-	KwaZulu-Natal
LC	-	latent change
LP	-	Limpopo
ML	-	maximum likelihood
NFER	-	National Foundation for Educational Research
NFI	-	normed fit index
NNFI	-	non-normed fit index
OECD	-	Organisation for Economic Co-operation and Development

PA	-	path analytic
PAF	-	principal axis factoring
PCA	-	principal component analysis
PGFI	-	parsimony goodness-of-fit index
PNFI	-	parsimony normed fit index
RMR	-	root mean square residual
RMSEA	-	root mean square error of approximation
SEM	-	structural equation modelling
SES	-	socio-economic status
SR	-	structural regression
SRMR	-	standard root mean square residual
SPSS	-	Statistical Package for the Social Sciences
StatsSA	-	Statistics South Africa
TLI	-	Tucker-Lewis index
UK	-	United Kingdom
ULS	-	unweighted least squares
UNDP	-	United Nations Development Programme
UNESCO	-	United Nations Educational Scientific and Cultural Organisation
UNISA	-	University of South Africa
USA	-	United States of America
VAT	-	value-added tax
VIF	-	variance inflation factor
WLS	-	weighted least squares

## CHAPTER 1

### INTRODUCTION AND BACKGROUND

#### 1.1 INTRODUCTION

Parental financial socialisation has recently gained increasing importance globally, because of low levels of financial literacy amongst young adults, especially those in developing countries and black communities (Lusardi, Mitchell & Curto, 2010). Financial illiteracy is widespread amongst young people, evident in their inability to perform simple calculations and their lack of understanding of basic financial concepts. Moreover, knowledge of more complex concepts, such as the difference between bonds and stocks, the workings of mutual funds, and basic asset pricing, is even scarcer among this cohort (Lusardi, 2015). This leads to young adults managing their finances ineffectively, incurring excessive debts, and experiencing financial problems (Robb & Woodyard, 2011; French & McKillop, 2016).

Young adults have been found to be less financially capable of setting aside emergency funds and retirement savings than older cohorts (Fan & Park, 2021). While many developed countries have expanded efforts to investigate financial literacy, there is a paucity of literature on the impact of parental financial socialisation on the financial literacy of young adults. The situation is worse in developing countries, especially in rural and low-income areas and black communities (Matemane, 2018).

In South Africa, young adults' debt levels have increased sharply, with a high number of young adults applying for debt review programmes offered by debt counsellors (BusinessTech, 2021). Black Africans are struggling to keep up with their debt repayments and are living beyond their means, with little left to save. They are therefore more vulnerable to financial shocks (Finmark Trust, 2019). The recent financial crisis may have increased this financial vulnerability, as individuals were affected differently by the shocks that accompanied the crisis. According to Antoni (2014), black African consumers have low levels of knowledge regarding issues such as bad debt and are more likely than other racial groups to experience financial problems. Matemane (2018) found that black South Africans are less financially literate than Coloureds, Indians, and whites. Additionally, black African consumers in rural and low-income areas are more likely to be exploited by informal lenders,

commonly referred to as 'loan sharks' or '*mashonisas*', as they have minimal access to the financial products and credit facilities of financial institutions (FinMark Trust, 2019; James, 2014). Thus, young black African adults in low-income and rural areas are financially vulnerable due to increasingly high debt levels, lack of financial knowledge, and poor financial behaviours (Opoku, 2015).

Lahav, Shavit, and Benzion (2017) assert that the banking industry has, in recent years, targeted mainly young adults as their most valuable customers. However, Lyons (2004) observed that young black African adults are unable to honour their credit card repayments, and a study by Flores (2014) found low financial literacy amongst young adults in low-income areas. This situation and the challenges faced by individuals in low-income areas make the process of financial decision-making more complex and difficult than it is for those in middle- and high-income areas (Collins, 2005). A study by Nanziri and Olckers (2019) found that less educated and low-income respondents displayed low levels of financial literacy. According to Cameron, Calderwood, Cox, Lim, and Yamaoka (2014), young adults from poor backgrounds face considerable financial challenges, and are confronted by complex financial choices, with little space to manoeuvre.

The transition to adulthood for young adults is not easy from a financial perspective. During this period, young adults are confronted with many challenges, including funding their education, starting a family, finding employment, accumulating assets, and creating wealth. Young adults cannot afford to make financial mistakes at this stage of their life, because it will haunt them in adulthood. Jorgensen (2007) asserts that financial decisions made early in life create habits that are difficult to break and affect young people's ability to become financially secure adults. Thus, young adults must be financially prepared during their transition into adulthood.

Financial socialisation may bridge this gap and empower young adults to be financially responsible in adulthood. Sabri, MacDonald, Masud, Paim, Hira, and Othman (2008) found a lack of financial socialisation to be the most important predictor of financial problems. According to Isomidinova and Singh (2017), financial socialisation agents have a positive effect on young adults' levels of financial literacy. Parents are considered the greatest financial socialisation agent and moulder of children's financial behaviour (Marshall & Magruder, 1960; Kim & Chatterjee, 2013; Mohamed, 2017).

Therefore, parents seem to be well positioned to expose children early on to financial matters and to foster financial knowledge. However, previous studies (Moschis, 1992; Pritchard & Myers, 1992) have found that parents often do not have the required financial skills to teach their children. This may pose the danger of parents being more likely to teach their children money matters based on their own emotions towards money (Williams, 2009). Mahapatra, Alok, and Raveendran (2016) posit that parents are responsible for securing the financial well-being of their families, and have a strong influence on their children, with most children regarding their parents as their role models. However, factors such as parental gender, culture, parenting styles, parental education level, and parental income may influence parental financial socialisation (Minahan & Huddleston, 2010). These factors are important as they may impact how parents engage in financial socialisation with their children.

According to Bandura (1977), children gain financial experience through observation, reinforcement, practice, participation, and deliberate instruction by parents. Parental financial interaction is associated with improved financial knowledge and behaviour of young adults (Shim, Xiao, Barber & Lyons, 2009). Drever, Odders-White, Kalish, Else-Quest, Hoagland, and Nelms (2015) posit that, for parental financial socialisation to be effective, it must start early in children's developmental stages, when the children are still young, because becoming financially literate is a long process of gathering financial information. This view is supported by Supanantaroek, Lensink, and Hansen (2017), who assert that a saving culture must be fostered at an early age, through proper financial socialisation, which includes financial education and training.

Early exposure to financial concepts has a positive effect on the money management skills of young adults. Equipping young people with adequate financial knowledge at an early age could promote healthy financial behaviours throughout life, as financial literacy positively shapes financial values, motivation, and attitudes (Friedline, Elliot & Nam, 2011). People who did not participate in or had few or no discussions about financial matters in their childhood tend to remain unaware of different financial products and tend to become irresponsible customers (Lyons & Hunt, 2003). This illustrates the importance of parents explicitly teaching their children about financial concepts and ensuring their financial literacy from a young age (Clarke, Heaton, Israelsen & Eggett, 2005).

In contrast, other studies argue that parental financial socialisation has no impact on young adults' financial literacy. Webley and Nyhus (2006) found a weak effect between parental financial discussions with children and children's economic and financial behaviour. Peng, Bartholomae, Fox, and Cravener (2007) argue that the saving habits of parents do not have an influence on the investment knowledge of their children. According to Mandell (2008), parents' educational background is not likely to be associated with their child's financial literacy. Lusardi et al. (2010) found that, if the child's cognitive ability is controlled, the mother's educational background will not influence the child's financial literacy. This view is also advanced by developmental theorists using Piaget's (1952) cognitive development theory, which holds that the child's learning is dependent on the cognition of the child, which develops in stages. The argument is that financial literacy qualitatively changes between early childhood and adulthood, based on responses in interacting with the financial environment (Ginsburg & Opper, 1988).

However, socialists dismiss this notion, and argue that understanding the development of financial literacy as a process of cognitive development is far from adequate (Gudmunson & Danes, 2011). Brau, Holmes, and Israelsen (2010) showed that family and background have a low effect on young adults' financial literacy. Jorgensen and Salva (2010) found that parents' financial interactions do not influence the financial knowledge of young adults. Albeerdy and Gharleghi (2015) observed a low and weak association between parental financial socialisation and the financial literacy of their children.

Mahapatra et al. (2016) indicate that parents discussing financial matters with their children and teaching them about finances and savings have a negative impact on the overall financial literacy of the youth. This view is supported by Zhu and Chou (2018), who found that direct parental teaching is negatively associated with financial literacy. Ameer and Khan (2020) also suggest that financial socialisation is not associated with higher financial literacy of young adults. Wrottesley (2016) went even further, indicating that parents are failing to properly teach their children about money management to equip them with the necessary financial knowledge so that they can manage their finances effectively and avoid too much debt.

Evidence suggests that very young adults are relying on credit to finance their daily lives, with almost one-third of young adults holding credit cards, while they are not confident about their money management skills and behaviour (Kim & Chatterjee, 2013). According to Norvilitis, Merwin, Osberg, Roehling, Young, and Kamas (2006), students with more debt are more likely to suffer financial stress and experience a deteriorating financial condition. The broader consequences of low levels of financial literacy for debt management, health, career decisions, overall financial well-being, and quality of life are dire, and should not be taken lightly (Cull & Whitton, 2011).

The benefits of high levels of financial literacy are substantial, with financial literacy being linked to correct and improved financial practices. Young adults who are financial literate are less likely to pay only the minimum balance on their credit card, be forced to pay penalties for late payments, take up increased limits, and take advance loans (Breitbach & Walstad, 2016). Kezar and Yang (2010) are of the opinion that financial literacy is very important in the development of life skills and financial knowledge and capabilities.

Thus, it is important to understanding the various factors that contribute to or detract from the acquisition of financial literacy amongst the youth, as it could inform policy interventions targeted at the youth to enhance their financial well-being (Garg & Singh, 2018). Investigating the influence of parental financial socialisation on the financial literacy of young adults is also important, as they are in a transitory period in their lives; they are moving away from parental supervision and starting to manage their own personal finances (Shim et al., 2009). For young black African adults in rural and low-income areas, this is an especially important phase, as they are the most vulnerable group in South Africa.

The rest of this chapter is organised as follows. Section 1.2 discusses the problem statement, Section 1.3 focuses on the objectives of the study, Section 1.4 deals with the research hypotheses, Section 1.5 discusses the significance of the study, Section 1.6 defines the key concepts of the study, and Section 1.7 provides an overview of the chapters.

## 1.2 PROBLEM STATEMENT

Young adults have been found to be incapable of making long-term financial plans (Fan & Park, 2021). A burning issue globally is the persistent low levels of financial literacy of young adults (Beverly & Burkhalter, 2005; Mandell, 2008; Lusardi et al., 2010; Garg & Singh, 2018), particularly those in developing countries (Symanowitz, 2006), sub-Saharan Africa, and rural and low-income areas (Chowa & Despard, 2014; French & McKillop, 2016; Grohmann, 2018). According to Loke (2015), individuals in low-income areas have a lower level of financial literacy, and do not actively manage their personal finances. Financial literacy is lowest amongst poor young adults (Cameron et al., 2014). South Africa is one of the most unequal countries in the world, with high levels of poverty and unemployment (World Bank, 2022). Young adults in South Africa displayed low levels of financial literacy (Symanowitz, 2006; Louw, 2009; Shambare & Rugimbane, 2012; Botha, 2013).

Apartheid had a negative impact on the majority of the black population, who had limited access to the financial system and were excluded from most economic activities (James, 2014). Young black African adults in South Africa are still suffering from the structural inequalities of the past, showing high levels of poverty and unemployment, according to Statistics South Africa (StatsSA) (2022). The few who are employed are confronted with the challenge of financially supporting extended family, colloquially termed 'black tax'. For young people living in poor families, low levels of financial literacy make it difficult to escape the cycle of intergenerational poverty (Zhu, Yu & Chou, 2019). Young black African adults in rural and low-income areas are particularly affected; they are struggling to effectively manage their finances and are highly indebted (Finmark Trust, 2019). They are also underprivileged through their lack of knowledge of and experience in dealing with financial institutions and managing large sums of money (Johnson & Sherraden, 2007). Moreover, they are charged high fees and interest rates, as they are considered a high risk (Agarwal, Driscoll, Gabaix & Laibson, 2009).

Studies (Lusardi et al., 2010; Hudson, Young, Anong, Hudson & Davis, 2017) have shown that young black African adults lack financial knowledge and are not fully equipped to deal with financial challenges and responsibilities in their transition to adulthood. This is exacerbated by limited access to financial education. Ramavhea,

Fouche, and Van der Walt (2017) argue that financial literacy of young black adults in rural and low-income areas in South Africa is particularly worrying when considering the poor state of the economy; the country may be downgraded further and encounter a recession. Besides the persistent low levels of financial literacy of black young adults in rural and low-income areas, purposive financial socialisation seems to be ignored by their parents, who should play an important role in their children's upbringing, including influencing their children's financial behaviour (Clarke et al., 2005). However, little is known about their influence on the financial literacy of black young adults in these areas. Therefore, this study intends to investigate the influence of parental financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa.

### **1.3 OBJECTIVES OF THE STUDY**

This section details the primary and secondary objectives of the study.

#### **1.3.1 Primary Objective**

The primary objective of this study is:

*To determine the influence of parental financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa.*

#### **1.3.2 Secondary Objectives**

The primary objective of the study will be achieved through the following secondary research objectives (SROs):

- SRO1: To determine the level of financial literacy amongst young black African adults.
- SRO2: To examine parental financial socialisation by black African parents of young black African adults.
- SRO3: To determine differences in parental financial socialisation according to parental socioeconomic status (SES), i.e., parental income level and parental level of education.
- SRO4: To determine differences in parental financial socialisation according to the gender of the child.

- SRO5: To determine differences in parental financial socialisation of young black African adults according to the parental gender.
- SRO6: To determine the relationship between culture and parental financial socialisation of young black African adults.
- SRO7: To determine the relationship between parenting style and parental financial socialisation of young black African adults.
- SRO8: To establish the relationship between parental financial socialisation of young black African adults and their financial literacy.
- SRO9: To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by social structural factors (parental SES).
- SRO10: To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by individual factors (child's gender and parental gender).
- SRO11: To propose a parental financial socialisation model/framework to facilitate the financial literacy of young black African adults.

These secondary objectives will be achieved through empirical testing.

#### 1.4 RESEARCH HYPOTHESES

In line with the secondary objectives, six hypotheses (Hs) were formulated for the study. These hypotheses are linked to SROs 1 to 10 in Table 1.1. Objective 11 will not be empirical tested.

**Table 1.1: Research hypotheses**

<b>Hypothesis</b>	<b>Objective</b>
<b>H1:</b> Young black African adults are financially literate.	<b>Objective 1:</b> To determine the level of financial literacy amongst young black African adults
<b>H2:</b> Young black African adults are financially socialised by their parents.	<b>Objective 2:</b> To examine parental financial socialisation by black African parents of young black African adults.

**Table 1.1 (Cont.): Research hypotheses**

<b>H3:</b> There is a significant difference in parental financial socialisation across parental SES (parental income level and parental level of education).	<b>Objective 3:</b> To determine differences in parental financial socialisation according to parental socioeconomic status (SES), i.e., parental income level and parental level of education.
<b>H4:</b> There is a significant difference in parental financial socialisation according to the child's gender.	<b>Objective 4:</b> To determine differences in parental financial socialisation according to the gender of the child.
<b>H5:</b> There is a significant difference in parental financial socialisation according to parental gender.	<b>Objective 5:</b> To determine the differences in parental financial socialisation according to the parental gender
<b>H6:</b> There is a significant positive relationship between culture and parental financial socialisation.	<b>Objective 6:</b> To determine the relationship between culture and parental financial socialisation of young black African adults.
<b>H7:</b> There is a significant positive relationship between parenting style and parental financial socialisation.	<b>Objective 7:</b> To determine the relationship between parenting style and parental financial socialisation of young black African adults.
<b>H8:</b> There is a significant positive relationship between parental financial socialisation and financial literacy.	<b>Objective 8:</b> To establish the relationship between parental financial socialisation of young black African adults and their financial literacy.
<b>H9:</b> The relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).	<b>Objective 9:</b> To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by social structural factors (parental SES).
<b>H10:</b> The relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).	<b>Objective 10:</b> To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by individual factors (child's gender and parental gender).

Source: Author's own compilation

## 1.5 SIGNIFICANCE OF THE STUDY

The impact of parental financial socialisation on the financial literacy of young adults has never been more important than now. Children learn the foundation and basics of life at home, before formal learning through early childhood development, high school, and tertiary education commences. According to Homan (2016), well-planned

guidance and relevant financial interactions amongst parents and their children are highly beneficial in enhancing saving behaviour and reducing debt. Every country's economy and its residents' financial and social well-being rely, to a large extent, on knowledgeable consumers (Jorgensen, 2007). In addition, mostly young consumers are targeted by credit providers. The future and financial well-being of South Africa depends on the financial knowledge and well-being of its youth. Thus, it is imperative that young South African adults receive the necessary financial socialisation. Empirical evidence has shown that parental financial teaching has a significant impact on the money management behaviours of young adults (Allen, 2008).

The present study is thus of importance to South Africa nationally, and to the international community, as the aim is to address a long-standing gap in literature. There is a lack of parental financial socialisation in sub-Saharan Africa, particularly in South Africa, which impacts the financial literacy of black African young adults in rural and low-income areas (Chowa & Despard, 2014). Literature and financial socialisation studies in rural and low-income areas are scant. The current study will therefore focus on rural and low-income areas in South Africa in the investigation of parental influence on the financial literacy of young black African adults.

Young black African adults in rural and low-income areas might have to rely solely on family members, peers, and friends for financial socialisation, as access to financial education seems to be limited. There is evidence of financial exclusion of these consumers in rural areas, although there is progress in including them in the formal financial economy (Lazenby, 2011).

Most studies of parental financial socialisation were conducted in developed countries, with limited attention to developing countries. However, these studies measured parental influence on each separate dimension of financial literacy, mostly financial knowledge, financial behaviour, and financial attitude (Garg & Singh, 2018). Financial decision-making as a financial literacy domain was less often considered in financial socialisation studies. Furthermore, the definition of parents was mostly limited to biological parents. This may be attributable to the socio-economic conditions in developed countries, which are different to those in rural areas in developing countries. In rural black African communities, a parent may mean anyone who is looking after the child, not necessarily a biological parent.

This study will therefore be aimed at addressing this gap by including four dimensions of financial literacy, namely financial behaviour, financial attitude, financial knowledge, and financial decision making. The definition of *parent* will also be extended to include biological parents and caregivers.

There is empirical evidence that men are more financially literate than women (Vieira, 2012), and that female parents provide more parental warmth, communication, and advice than male parents. A study by Alsemgeest and Grobbelaar (2015) found that men display superior financial behaviour when compared to women. Furthermore, women were found to have low self-confidence in their ability to manage finances, and that they lack knowledge of financial management. However, what is lacking in literature is evidence of who is more likely to socialise children financially. This study will investigate this phenomenon and establish if there is any gender difference in parental financial socialisation of children.

This study will be aimed at providing insights into the effect of parenting style, social structural factors, individual factors, socio-economic status (SES) of the parent, and culture on the parent's financial socialisation of their children. These factors are relevant in the current economic conditions, which require that family members work together to achieve the family's common financial goals.

Parents play an important role in their children's life; they impact on their children's career choice and decision-making, and also influence their financial literacy. The extent of their influence on children in rural and low-income areas in South Africa is yet to be established. It is therefore necessary to make such a determination, so that appropriate intervention mechanisms can be developed and recommended to policy makers. It is important that young black African adults in rural and low-income areas gain basic financial knowledge and the necessary skills at an early age, to enable them to confront complex and important financial decisions and take full financial responsibility later in life. After a comprehensive review of literature, the current researcher is not aware of any studies conducted amongst young black African adults in rural and low-income areas. Therefore, this study will investigate the influence of parental financial socialisation on financial literacy of young black African adults in two rural and low-income areas in South Africa.

The study's results will also be used to formulate a parental financial socialisation framework to facilitate the financial literacy of young black African adults in rural and low-income areas in South Africa.

## **1.6 DEFINITION OF KEY CONCEPTS**

The next sections provide definitions of the key constructs of the present study.

### **1.6.1 Financial Literacy**

Financial literacy, in simple terms, refers to an individual's ability to read and understand financial matters and to make sound financial decisions in order to achieve financial well-being.

### **1.6.2 Financial Socialisation**

Financial socialisation is defined as the process of influencing an individual on financial matters by family members.

### **1.6.3 Parental Financial Socialisation**

Parental financial socialisation is defined as the process whereby parents influences their children on financial matters

### **1.6.4 Parent**

*Parent* mainly refers to the biological father or mother of a child. For the purpose of this study, a parent is not only a biological parent, but anyone who looks after a child, e.g., guardians, foster parents, and caregivers.

### **1.6.5 Young Adult**

For purposes of this study, a young adult is a black African person between the ages of 18 and 35 years.

### **1.6.6 Rural**

In general, rural is a geographic area that is located outside towns and cities. In this study rural includes those municipalities that are classified as category B4.

### **1.6.7 Rural and Low-income Area**

Rural and low-income areas, in the present study, are represented by Intsika Yethu and Fetakgomo Tubatse local municipalities. The municipalities are located in rural areas and are poorest local municipalities in the two poorest provinces in South Africa, namely Eastern Cape and Limpopo.

## **1.7 OVERVIEW OF CHAPTERS**

An overview of the study's chapters is provided below.

### **Chapter 1: Introduction and Background**

This chapter introduced the background to and reasons for conducting the study, provided the problem statement, and explained the objectives of the study. A short description and introduction of reviewed literature that informed the study was provided, which included theoretical and empirical literature on financial literacy and parental financial socialisation. Thereafter, the significance of the study was discussed, followed by definitions of the key concepts.

### **Chapter 2: Theories of Financial Socialisation and Financial Literacy**

This chapter presents theories of socialisation, financial socialisation, and financial literacy. The theories of socialisation discussed are social learning, observational learning, cognitive development, sociocultural learning, and social cognitive learning, followed by theories of financial socialisation, including consumer behaviour, consumer socialisation, financial socialisation, and a family financial socialisation model. Next, theories of financial literacy are explained, i.e., traditional finance theories and behavioural finance theories. These theories are then linked with the variables of the study.

### **Chapter 3: Parenting, Young Adulthood, and Parental Financial Socialisation: An Overview and Empirical Evidence**

The purpose of this chapter is to provide a theoretical and empirical review of literature on parenting, young adulthood, and financial socialisation. Parenting styles, parental roles, and parenting in black African households are highlighted. The transition to

adulthood is discussed by focusing on young adulthood. Socialisation is explored by highlighting the theories of socialisation, the origin of financial socialisation, and financial socialisation theory as the theories used in this study. Previous financial socialisation studies are also reviewed.

#### **Chapter 4: Financial Literacy: An Overview and Empirical Evidence**

An in-depth review of financial literacy literature is provided in this chapter. This review covers the theoretical foundation of financial literacy and previous studies on financial literacy amongst young adults. The dimensions of financial literacy are also discussed, as these form the basis from which financial literacy will be measured in this study.

#### **Chapter 5: Conceptual Framework of the Study**

The conceptualisation of a framework of financial literacy is described in this chapter, together with definitions and description of the variables of the study.

#### **Chapter 6: Research Methodology**

The research plan followed in investigating the research problem to achieve the objectives of the study is detailed in this chapter. This discussion includes the research approach, the design of the questionnaire, the population, sampling method, sample size, data collection, data analysis, reliability and validity, permission to conduct study, and the ethical considerations.

#### **Chapter 7: Empirical Results**

This chapter discusses the data analysis and interpretation of the study results. The statistical tools used to analyse the data are discussed, and the results are presented in graphs, figures, and tables.

#### **Chapter 8: Discussion of Results**

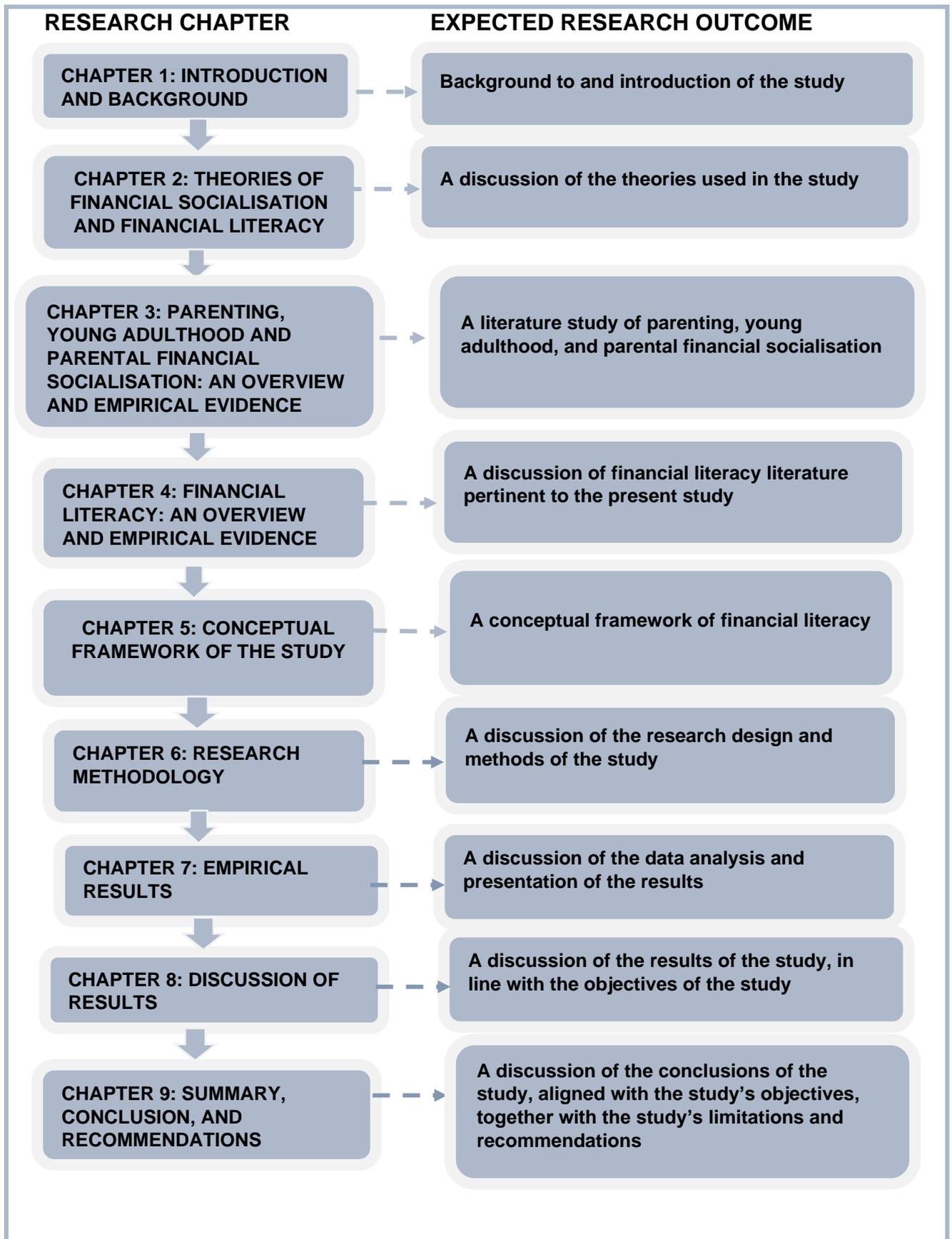
This chapter presents a discussion of the results of the study, including the demographic results, descriptive results, and the results of young black African adults' financial literacy. The chapter also presents the results of the analyses of the following relationships: young black African adults and parental financial socialisation, parental

financial socialisation and parental SES, parental financial socialisation and child's gender, parental financial socialisation and parental gender, culture and parental financial socialisation, parenting style and parental financial socialisation, parental financial socialisation and child's financial literacy, as well as the influence of social structural factors and individual factors.

## **Chapter 9: Summary, Conclusion, and Recommendations**

The conclusions of the study, aligned to the objectives of the study, are highlighted in this chapter. The limitations and recommendations of the study are also presented.

Figure 1.1 illustrates the research process by summarising the overview of each chapter and linking it with the expected outcome for that particular chapter.



**Figure 1.1: Research process**

Sources: Author's own compilation

## CHAPTER 2

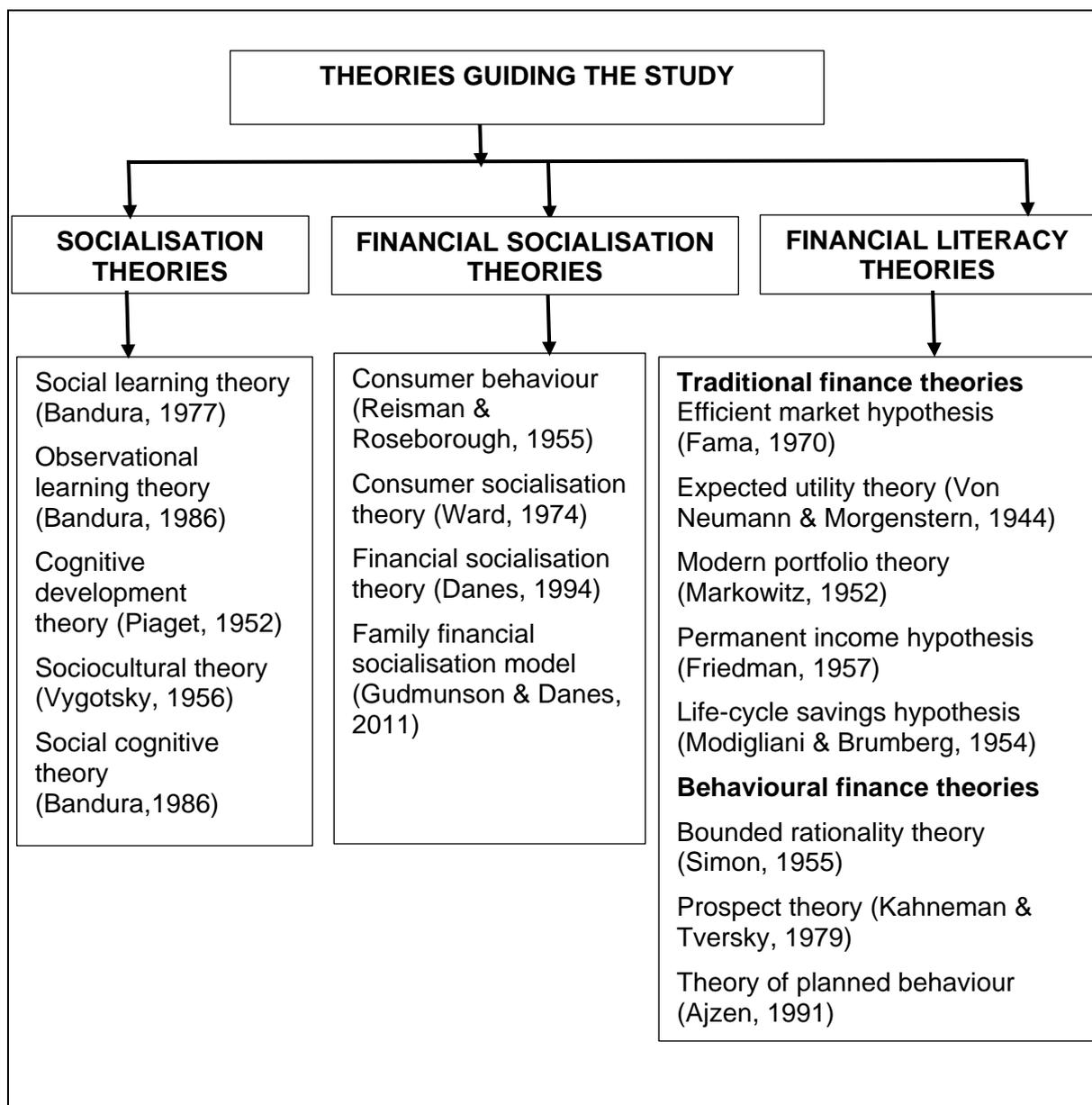
### THEORIES OF FINANCIAL SOCIALISATION AND FINANCIAL LITERACY

#### 2.1 INTRODUCTION

Chapter 1 introduced the study by means of the background of the study, the problem statement, the research questions, the objectives, the significance of the study, the intended contribution to knowledge, the definition of key concepts, and an outline of the chapters. The background to the study showed that young black African adults are struggling to manage their finances, and that they continue to be financially vulnerable. They are facing increasing difficulties in becoming financially independent, due to high levels of unemployment. The primary objective of this study was to determine the influence of parental financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa.

This chapter provides an overview of the theories underpinning this study, which are depicted in Figure 2.2. Section 2.2 discusses theories of socialisation, such as social learning, observational learning, cognitive development, sociocultural socialisation, and social cognitive socialisation. Section 2.3 provides an overview of theories of financial socialisation, namely consumer behaviour, consumer socialisation, financial socialisation, and the proposed Family Financial Socialisation Framework. Section 2.4 outlines theories of financial literacy classified as traditional finance theories and behavioural finance theories. Traditional finance theories include the efficient market hypothesis, expected utility, the modern portfolio, the permanent income hypothesis, and the life-cycle hypothesis, while behavioural finance theories include bounded rationality, prospect theory, and the theory of planned behaviour. Lastly, Section 2.5 summarises the discussions contained in the chapter.

Figure 2.2 depicts the theories that guided this study, which are categorised as socialisation theories, financial socialisation theories, and financial literacy theories, together with the relevant sources.



**Figure 2.2: Theories underpinning the study**

Source: Author's compilation

## 2.2 THEORIES OF SOCIALISATION

Brim (1966), a pioneer of socialisation who influenced the definition of consumer socialisation by Ward (1974), argued that socialisation is the process whereby persons acquire the knowledge, skills, and dispositions that make them able members of their society. An individual can be said to be socialised when he or she has learned to think and feel according to society's expectations. Ladd and Pettit (2002) posit that the process of socialisation refers to how a child — through education, training, observation, and experience — acquires skills, motives, attitudes, and behaviours that

are required for successful adaptation to a family and a culture. The socialisation process is bidirectional, in that parents convey socialisation messages to their children, but their children vary in their level of acceptance, receptivity, and internalisation of these messages (Grusec, Goodnow & Kuczynski, 2000).

Socialisation is an adult-initiated process whereby children acquire habits and values congruent with their culture through insight, training, and imitation (Baumrind, 1980). Thus, socialisation is the entire process of developing specific patterns of individual behaviours and experiences as a result of interactions with other people. Socialisation is sometimes anticipatory, implying that the behaviour is affected, but may not occur immediately. Thus, what has been learned in childhood may only have an impact during adulthood. Additionally, changes are not expected to occur at the same age for all children, because children's life situations differ (Reisman & Roseborough, 1955).

Socialisation could have a direct effect on young people's mental outcomes, including their perceived behavioural control, financial confidence, and financial attitude (Moschis, Moore & Smith, 1984). Socialisation can be classified into two types, namely primary and secondary socialisation. Primary socialisation is the process by which a child becomes a participating member of a society, while secondary socialisation occurs as the individual enters a specific world that assigns a specific social role (Berger & Berger, 1979). The secondary socialisation classification is similar to Reisman and Roseborough's (1955) argument that socialisation can be anticipatory. Therefore, the theme underscored by these scholars is that socialisation is a social process by which norms, attitudes, motivations, and behaviours are transmitted from specific sources — socialisation agents — to the learner (Moschis & Churchill, 1978).

Socialisation implies learning throughout life. Several theories have emerged from socialisation theory that were considered relevant this study, such as social learning theory, cognitive development theory, social cognitive theory, and sociocultural theory. To lay a solid foundation for the discussion of financial socialisation theory, this section reviews the theories of socialisation. Five theories of socialisation are discussed, namely social learning, observational learning, cognitive development, sociocultural learning, and social cognitive learning.

### 2.2.1 Social Learning Theory

Social learning theory as advocated by Bandura (1977) originated from behaviourism, postulated by behaviourists such as Pavlov (1927), Watson (1928), and Skinner (1938), who argued that learning can be involuntary or voluntary, occurring through a stimulus–response relationship. These authors regard a learning outcome as a change in a person’s behaviour, caused by environmental influences (Kimble, 2001).

Pavlov (1927) demonstrated involuntary or reflexive learning through association with stimuli in animal experiments, which were later extended to children. This was termed *classical conditioning*. Pavlov (1927) found that dogs learned to salivate when they heard the sound of a bell paired repeatedly with food, called *conditioned response*. Thus, Pavlov (1927) concluded that learning occurs through a process of association, and that a large component of human behaviour is conditioned in this way. Moreover, Pavlov (1927) argued that drive, cue, and response were the main themes in his experiment. *Drive* is a need or motive, and implies strong stimuli internal to the individual, which activate action. *Cue* is a weaker stimulus in the individual, and the environment will determine where, when, and how a subject respond. *Response* is the reaction to the configuration of the cues, which will not necessarily always generate the same response.

Watson (1928) disagreed with Pavlov’s (1927) notion of classical conditioning and argued that the conditioned response is an emotional response, based on an experiment using a young child named Albert, who was taught to fear rats and objects that resembled them. Originally, Albert was unafraid of rats, but Watson (1928) created a sudden loud noise whenever Albert touched a rat. Albert was frightened by the loud noise, and he soon became conditioned to fear and avoid rats. Thus, children are taught and learn how to behave. Watson (1928) is also known for the famous statement in support of radical environmentalism: ‘Give me a dozen infants, well-formed, and my own specified world to bring them up in and I will guarantee to take any one at random and to train him to become any type of specialist.’ Watson (1928) rejected the notion of consciousness and mental and physiological states and argued for observables. In doing so, he objected to Plato’s human talents: knowing, feeling, and doing, which are also referred to as *cognition*, *affect*, and *reaction tendencies* (mentalistic concepts). Watson (1928) argued for conditioned reflexes: translating

cognition into language reflexes, affect into emotional reflexes, and reaction tendencies into manual (motor) reflexes. Watson (1928) concluded that human behaviour is learned (Kimble, 2001; Reissing & VanZuylen, 2015) through conditioning, which leads to the individual behaving involuntarily, sometimes not even being aware of the behaviour. The behaviour is the result of what they were taught and also shaped by the environment (Falter, 2001).

Skinner (1938) introduced operant conditioning in behaviourism, which was an extension of Thorndike's law of effect, which states that a positive consequence will lead to repetition of a behaviour, and that a negative consequence will discourage a behaviour (Thorndike, 1918). According to Herrnstein (1977), Skinner is known for his pigeon experiment, in which he trained them to peck at a target and were rewarded with food when they completed the task correctly. Based on this experiment, Skinner (1938) described the consequences of the learning of voluntary behaviour. Thus, he introduced an important concept in learning that guides operant conditioning, which is reinforcement (Ku, Phillipson & Phillipson, 2015).

Reinforcement can occur through rewarding or punishment of a behaviour (Bandura, 1977). Individuals then voluntarily behave in an acceptable manner and would also be motivated to learn at whatever cost, and even in extreme situations. This leads to the addition of desirable, or the removal of undesirable, stimuli from the environment immediately after a behaviour is performed. Reward strengthens a behaviour, while punishment reduces the probability of a behaviour being repeated (Ku et al., 2015). Parents can reward good behaviour by, e.g., giving or increasing a child's allowance, or reduce it or even withdraw it completely to punish bad behaviour. However, extreme punishment is not considered effective in promoting learning, as it often leads to negative emotions, which negatively affect learning (Baumrind, 1997). Although reinforcement provides an effective means of regulating behaviours that have already been learned, it is a relatively inefficient way of creating these behaviours.

Reinforcement influences ordinarily occur together with numerous behavioural examples to draw upon; it is difficult to determine whether reinforcement creates the new behaviour or activates what was already partly learned (Bandura, 1977). Moreover, Bandura argued that direct reinforcement cannot account for all types of learning and argued the concept of social learning. Thus, behaviourist theories were

criticised for not offering plausible explanations for higher-order mental processes like thinking and processing information (Iqbal, 2015).

Bandura's (1977) social learning theory posits that people learn from interactions with others in a social context. This theory also indicates that, as children learn over the years through social interaction in a particular social setting, they begin to understand and form their attitudes and knowledge about finances. This theory positions parents at the centre of the social learning process, both as teachers and as role models. Learning takes place through active teaching and communication, unconscious observation and imitation, and positive or negative reinforcement from parents. Parents may attempt to teach children saving or consumption behaviour, but children could also learn these behaviours by simply watching their parents performing these acts. Therefore, because parents are the key influence in children's lives as they grow up, the positive and negative financial attitudes and knowledge of young adults about money are primarily influenced by their parents (Bandura, 1977).

Social learning theory postulates that the different financial behaviours of children are due to variations in the social structural factors where their learning takes place. Since children from low-income families have less experience with money and may be less aware of the range of consumer goods, their learning of some aspects of consumer skills could be lower than that of children from upper-income families, who have more opportunities for consumption. Interestingly, an argument can also be made that those children from low-income families are more likely to become highly skilled consumers because they have had to learn disciplined use of scarce resources. Thus, social structural factors play an important role in social learning (Bandura, 1977).

Social learning theory has been empirically validated in socialisation studies. Garrison and Gutter (2010) employed social learning theory to examine gender differences in financial socialisation. They found that women have significantly more exposure to financial social learning opportunities across the dimensions of discussions with parents and discussions with peers. Likewise, Agnew (2018) examined the relative effect of different parental mechanisms that encourage constructive financial socialisation. Agnew's (2018) study confirmed that financial discussions between parent and child have a significant influence on future financial knowledge, attitude, and behaviour. Furthermore, the study found that putting money into a savings

account and giving a child pocket money could provide further opportunities to engage in financial socialisation (Agnew, 2018).

Similarly, Jorgensen (2007) tested the validity of social learning theory and reported that parents significantly influence their children's financial knowledge, attitude, and behaviour. However, Agnew's (2018) and Jorgensen's (2007) studies did not consider financial decision-making, which is an important aspect of financial literacy. Kolodziej, Lato, and Szymanska (2014) employed social learning theory to investigate the relationship between parents' behaviours and children's economic knowledge and concluded that there is positive relationship.

Although social learning theory is supported empirically, criticism has been levelled against it, which can be traced back from its origins in behaviourism. The criticism of behaviourism is that, in a strong effort to avoid spurious inner causes, it neglects determinants of behaviour arising from cognitive functioning. The anti-behaviourism argument is that a theory that denies that thoughts can regulate actions does not lend itself readily to the explanation of complex human behaviour. Additionally, social learning assumes passivity in the nature of the observer who receives the rewards or punishments; the approach does not explain why certain behaviours are rewarded or punished, and it fails to explain why some individuals will not conform to social norms (Nelson, 2010). Social learning theory also fails to consider sequential changes in children's psychological structure. Based on this view, Bandura (1986) argued for observational learning.

### **2.2.2 Observational Learning Theory**

Observational learning theory is sometimes referred to as *learning through modelling* (Bandura, 1986). Greer, Dudek-Singer, and Gautreaux (2006) assert that there is little consistency in the use of terms for behaviour change that occurs through observation; terms like *copying*, *imitation*, *echoing*, and *parroting* are also used. This is evident from the study of Miller and Dollard (1941), who used the term *imitation learning* for non-mediated stimulus responses. They argue that, for imitative learning to occur, observers must be motivated to act, they must be provided with an example of the desired behaviour, they must perform responses that match the example, and their imitative behaviour must be positively reinforced. Miller and Dollard (1941) conducted experiments that are accepted as demonstrations of imitative learning, where a model

always chose one of two boxes that contained two rewards, and observers received one of the rewards whenever they went to the same box. Observers not only learned to follow the model, but they generalised copying responses to new situations, to new models, and to different motivational states. However, the model's actions simply informed children where to go; it did not teach them any new behaviour (Bandura, 1969). Therefore, Bandura (1969) argued against imitation learning and for observational learning, which is concerned with how people organise behavioural elements to form new response patterns as exemplified by others. This involves four separate processes, namely attention, retention, production, and motivation.

- **Attention:** Observers cannot learn unless they pay attention to what is happening around them. Attentional processes determine what is selectively observed in the profusion of modelling influences to which one is exposed and what is extracted from such exposures. Several factors, some involving the observer's characteristics, others involving the features of the modelled activities themselves, and the structural arrangement of human interactions regulate the amount and types of observational experiences. Within any social group, some individuals are likely to command greater attention than others.
- **Retention processes:** People cannot be much influenced by observation of modelled behaviour if they do not remember it. A second major process involved in observational learning concerns retention of activities that have been modelled at one time or another. If one is to reproduce a model's behaviour when the latter is no longer present to serve as a guide, the response patterns must be represented in memory in symbolic form. This involves imaginal and verbal representational systems. Some behaviour is retained in imagery.
- **Motor reproduction processes:** These are processes whereby symbolic representations guide overt actions. To achieve behavioural reproduction, a learner must put together a given set of responses according to the modelled patterns. The amount of observational learning that a person can exhibit behaviourally depends on whether he/she has acquired the component skills. Learners who possess the constituent elements can easily integrate them to produce the new patterns, but if some of these response components are lacking, behavioural reproduction will be faulty.



children and adolescents live with their parents, they are subjected to visible parental behaviours, and repetition shapes and strengthens the adolescents' preferences and practices. Thus, adolescents may emulate the behaviours they see their parents demonstrate in their financial practices, and they may consume the same product brands, shop at the same stores, and make similar financial decisions because of modelling and observation. Frequency of observing and interacting with parents in financial matters correlates with the acquisition of knowledge and financial behaviour (Bandura, 1977). Moreover, observational learning theory postulates that people are neither driven by inner forces, nor buffeted by environmental stimuli; rather, psychological functioning is explained in terms of a continuous reciprocal interaction of personal and environmental determinants, in which symbolic, vicarious, and self-regulatory processes play an important role. Garrison and Gutter (2010) found that children have a higher exposure to financial learning opportunities through observations of parents' financial behaviours than observations of peers' financial behaviours.

### **2.2.3 Cognitive Development Theory**

Cognitivists, on the other hand, believe that cognitive development theory helps to explain learning, which they believe socialists ignored. The study of cognition can be traced to Gestalt psychology of the late nineteenth century. It originated in Germany in the work of Wertheimer (1923) and was supported by Koffka (1935) and Kohler (1940). It later spread to America through the work of Lewin (1952), who introduced the term *cognitive field*, arguing that behaviour is the result of the situation as perceived by individuals. Gestalt is German for *configuration*. It is the study of how the mind perceives and organises pieces of information into a structured whole and derives from it a meaningful representation of the world (Reilly & Lewis, 1991).

Cognitive development theory grew from Freud's psychoanalysis, which focused on unconscious drives to explain human behaviour. According to this theory, the mind is responsible for both conscious and unconscious decisions. This paved the way for cognitive learning, with leading cognitivist Piaget (1952) shaping the field of psychology by explaining human behaviour through cognitive development. Cognitive development theory's principal focus is the competence the child brings to his behaviour as a consumer. It describes the development of thought processes,

including remembering, problem-solving, and decision-making, from childhood through adolescence, to adulthood. The theory holds that children's consumer behaviour is best studied as a developmental phenomenon of skills, knowledge, and attitudes relevant to consumption behaviour. The theory explains that cognitive development occurs in stages of maturity, from childhood to adulthood, and argues that children learn financial matters in stages, based on their cognitions. As children mature, they move through a series of statuses corresponding to different stages in their life cycle (Piaget, 1952).

Bruner (1990) also worked in the field of cognitive development and reviewed most of Piaget's work. Bruner (1990) introduced topics such as modes of representation, language acquisition, culture and narrative, and constructivism. Bruner (1990) argued that cognitive development, as transformation rather than physiological maturation, is a consequence of learning to deal with the world through progressively more advanced cultural forms and cultural modes of representation. Moreover, Bruner seemed to support Piaget's view that development involves qualitative changes, but added the acquisition of cultural tools (Olson, 2007).

Lourenco (2016) supports Piaget's theory as clear and useful heuristics and conceptual tools to identify and chart developmental change in various domains. Piaget's (1952) research on cognitive development remains widely in use in developmental studies. Piaget (1952) introduced stages of cognitive development to explain cognitive development processes, and described it in four stages: sensory motor, pre-operational, concrete operational, and formal operational. Each stage is attained by an individual at a particular age (Lourenco, 2016). Table 2.2 describes Piaget's stages of cognitive development.

**Table 2.2: Stages of cognitive development and associated characteristics**

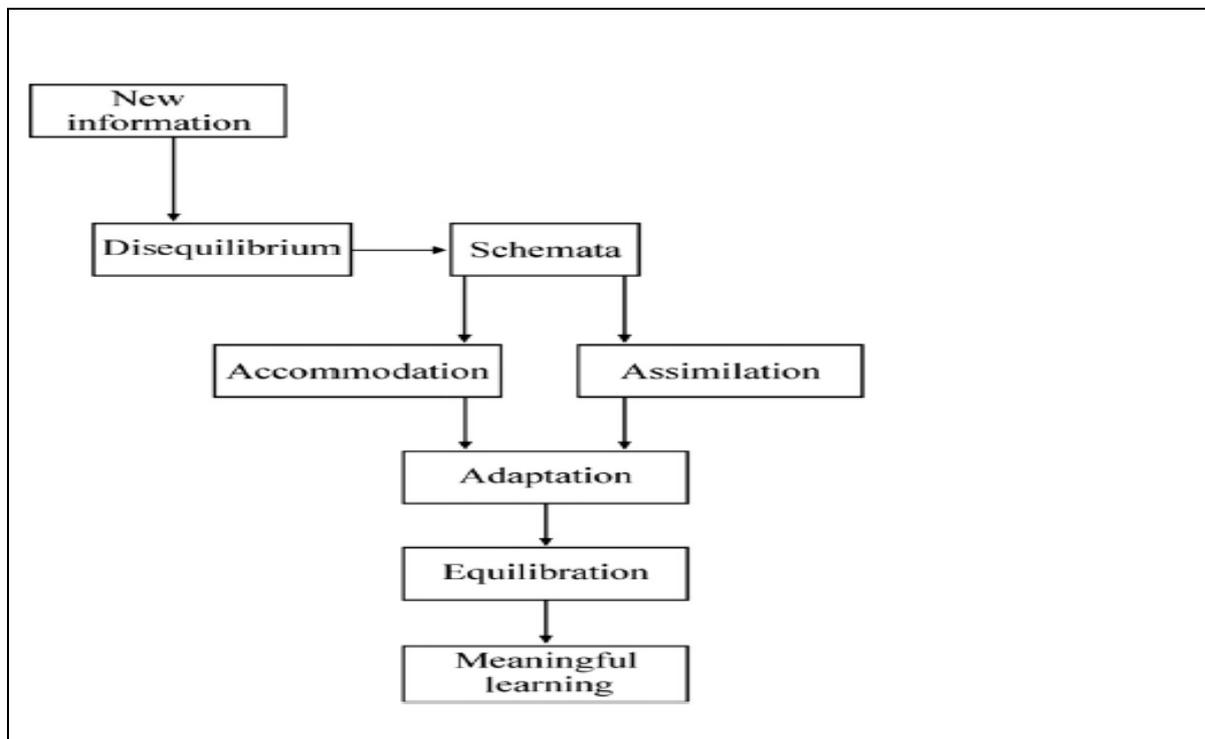
Stage	Age in years	Characteristics
1. Sensorimotor	0–2	<ul style="list-style-type: none"><li>• Begins to make use of imitation, memory, and thought</li><li>• Begins to recognise that objects do not seem to exist when they are hidden</li><li>• Moves from reflex action to goal-directed activity</li></ul>
2. pre-operational	2–7	<ul style="list-style-type: none"><li>• Gradually develops use of language and ability to think in symbolic form</li><li>• Able to think logically in one direction</li><li>• Has difficulties seeing another person's point of view</li></ul>
3. Concrete operational	7–11	<ul style="list-style-type: none"><li>• Able to solve concrete problems in a logical (hands-on) fashion</li><li>• Understands conversation and is able to classify and seriate</li><li>• Understands reversibility</li></ul>
4. Formal operational	11–adult	<ul style="list-style-type: none"><li>• Able to solve abstract problems in a logical fashion</li><li>• Becomes more scientific in thinking</li><li>• Develops concerns about social issues and identity</li></ul>

Source: Piaget (1952); Iqbal (2015)

Piaget's stages of cognitive development explain how children pass through different and clearly noticeable stages of cognition. Children construct an understanding of the world around them, experience discrepancies between what they already know and what they discover in their environment, and then adjust their ideas accordingly (Piaget, 1952). These stages indicate that mental activities define a human as an active learner who selects, filters, evaluates, and predicts according to his/her needs and goals, through internal and physical maturation (Huitt & Hummel, 2003). Cognitive theorists share the notion that one's thoughts and interpretations of the environment are prone to errors, distortions, and incorrect assumptions. They argue that learning occurs as a result of the development of cognitive abilities and the use of cognitive strategies in remembering, integrating, and making sense of the world (Kozulin, 2015).

According to Piaget (1952), for stages of cognitive development to occur, the mechanisms of cognitive development are very important, as they lead to the outcome of the development process. These mechanisms are schemata, assimilation, and accommodation. Schemata are patterns of behaviour that children show in dealing with objects. Assimilation is an internal organisational process used by children to

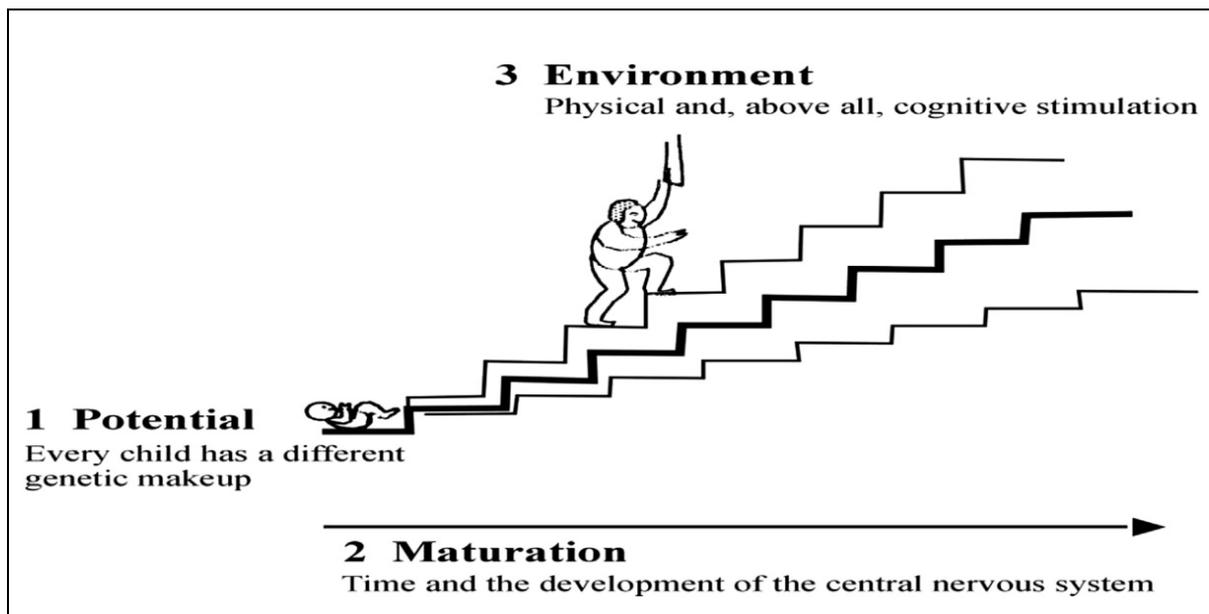
make sense of the world around them, whereby new incoming information becomes part of the old. Accommodation occurs when a child tries to modify the old schema to fit the new information into his/her cognitive structures, but if the child fails to handle the new information with the help of the previously learned pattern of behaviour, some sort of imbalance or inequilibrium is created, which could affect learning. For meaningful learning to occur, the child would have to develop new schemata or adopt the old ones until a balance or equilibrium is restored. Thus, at a certain age, children will struggle to comprehend some financial information, so parents must be aware of and prepared to navigate this hurdle and introduce relevant financial information at the right time (Weisberg & Reeves, 2013). Figure 2.4 outlines the developmental process through mechanisms of cognitive development.



**Figure 2.4: Mechanisms of cognitive development**

Source: Iqbal (2015)

Cognitive development is the outcome of an interaction between three factors: heredity, maturation, and the environment in which the child operates. Heredity is the genetic potential received from parents. Maturation is the unfolding of that genetic potential. The environment provides the stimuli, inputs, and experiences for cognitive stimulation (Iqbal, 2015). Figure 2.5 illustrates these factors.



**Figure 2.5: Factors affecting cognitive development**

Source: Iqbal (2015)

As indicated in Figure 2.5, to understand learning, it is important to probe the environment surrounding the learner. This has been argued to be one of the shortcomings of cognitive development. The cognitive development process continues until the individual's ways of thinking is almost fully formed by the end of adolescence (Daniels, 2008).

Cognitive development theory is also supported in financial socialisation studies. For example, Friedline (2015) links the ability of children to save and their use of savings accounts with their cognitive, social, and linguistic development, and posits that children are developmentally capable of saving by the age of five or six years. Rea, Danes, Serido, Borden, and Shim (2019) assert that financial socialisation is implicit, and, as such, is subject to different interpretations, as family members may not fully understand what is happening or why it is happening in a particular way. Financial discussions involve cognitive processes by which financial socialisation contributes to attitude, knowledge, and capabilities. In turn, these cognitions form definitions of financial well-being (Shim, Barber, Card, Xiao & Serido, 2010).

Children's cognitive development may also influence financial socialisation. Children with a higher cognitive level demonstrate greater differences in attention behaviour with regard to commercials than children with a lower cognitive level when stimuli vary

primarily in non-perceptual content aspects. Thus, children's knowledge of aspects of the adult economic world, such as money, possessions, wealth, supply and demand, pricing, and profit is dependent, in part, on their mathematical conceptual understanding and problem-solving.

Furthermore, numeracy has been linked to children's development and maintenance of a savings plan. A lack of numeracy, coupled with an inability to understand finances, often causes debt problems amongst young adults. Therefore, the cognitive developmental perspective of socialisation implies that the financial socialisation of children is dependent upon their stage of development, and that the quality and quantity of their financial information processing will vary at different stages (Piaget, 1952). Thus, there is a significant association between cognitive abilities and financial literacy (Cole, Sampson & Zia, 2010).

Despite support in literature, cognitive development theory has been criticized and some shortcomings has been noted, namely that it tends to consider childhood as a transportation distance from the incomplete to the complete. Another contention is that childhood should be viewed as a social construction. Thus, children and adults together participate in creating a good childhood, and children, like adults, are continuously confronted with new situations and challenges (Olesen, 2003). Therefore, children are capable of construction of their own knowledge as they interact with other individuals and the environment. Cognitive development theory fails to address intra-individual variation due to biological, socio-economic, and personality differences. Some criticise the developmental approach to learning for its failure to consider the effects of interpersonal interaction (Ward, 1974). Moreover, cognitions are inaccessible, except through untrustworthy self-reports; they are inferences from effects, or they are simply fictional (Bandura, 1977). Others, like Matusov and Hayes (2000) have argued that Piaget's (1952) concepts of assimilation and accommodation are vague and difficult to assess and fail to account for language. They argue for skills instead of schemata, indicating that skills represent an individual's capacity to control elements of thinking, feeling, and action within specified contexts and within a particular task (Matusov & Hayes, 2000).

#### **2.2.4 Sociocultural Theory**

Vygotsky (1956) introduced sociocultural theory as an extension of Piaget's (1952) theory of cognitive development. The writings of Vygotsky (1956) were virtually unknown outside Russia until the publication of Vygotsky's (1956) thoughts in English, which led to greater interest internationally. Vygotsky died in 1934, but his work thrived after his death as more material was translated (Van der Veer, 2015). Vygotsky (1956) claimed that cognitive skills have their origins in social relations, and that they are embedded in a sociocultural backdrop. The emphasis is on the fact that a child's development and learning cannot be studied in isolation from environmental factors or external influences on the child's cognitions and social and cultural activities. The argument is that the social environment and the interaction with that social environment influence children's cognitive development. Thus, culture in the form of social interaction plays an important role in the cognitive development of individuals from an early age (Iqbal, 2015).

Vygotsky (1956) further assumed that cognitive development varies across cultures, as cultures use different techniques as memory strategies. Vygotsky's (1956) argument is that learning is a collaborative process whereby meanings are constructed through the process of social interaction, questioning, discussion, and dialogue. According to Vygotsky (1978), Piaget (1952) failed to consider the environment in which a child grows up, which environment contains external influences that have an impact on children's learning. Vygotsky (1956) does not dispute Piaget's (1952) view that children learn through stages of development that are age-bound but added important aspects of the sociological origin of cognitive functioning, namely zone of proximal development, scaffolding, and language and thought. With regard to zone of proximal development, Vygotsky (1978) argued that every individual has two levels of development: a lower level that each is able to attain under normal circumstances and an upper level that each can attain under the influence of an adult or capable peer. Thus, for children to move to the next stage of development, they need help from others. Piaget (1952), however, only focused on maturation to pass to the next stage. Scaffolding explains the nature and the kind of help and guidance afforded to the child by an adult in solving a relatively difficult task. The premise is that, instead of providing a direct solution to the problem, a parent or more knowledgeable person should adjust the level of guidance to help the child to arrive at the solution. Thus, a child's cognition

is developed (Daniels, 2008). Language has also come to the fore as an important influencer of cognition development. Vygotsky (1978) posited that children's use of language is intimately linked with the development of their thoughts.

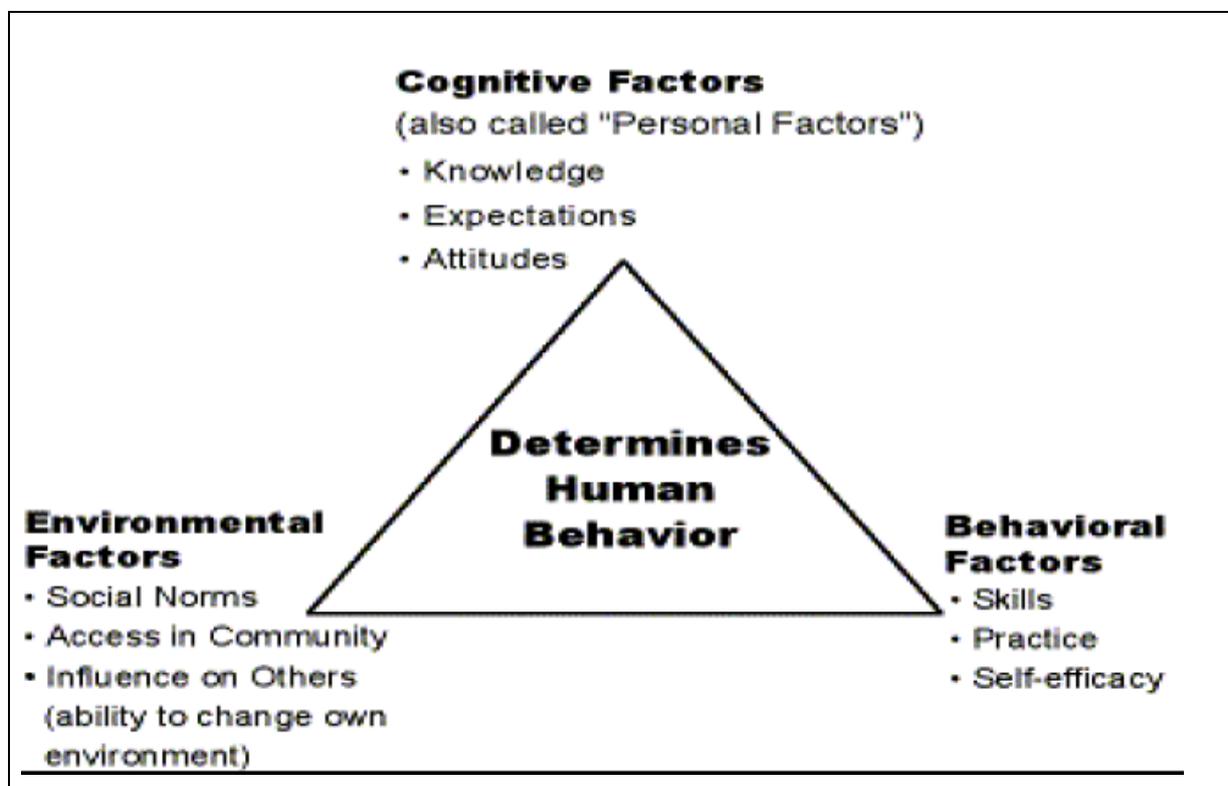
Moreover, children use language, not only to communicate with adults or caregivers in their surroundings, but to regulate their thinking and behaviour. This is contrary to Piaget's (1952) view of children's language as non-social or egocentric speech and their self-talk being immature thought (Iqbal, 2015). This theory acknowledges the importance of the cognitive structures a child brings to understanding a situation, as this impact how that situation is mentally constructed by the child. This mental construction process takes place within a cultural context that is flooded with ready-made knowledge of consumption that would, as asserted by the social learning perspective, place boundaries on the range of constructions available to the child (Cram & Hung Ng, 1999).

Sociocultural theory has been validated regarding the role of culture in children's development. Children's levels of cognitive development not only determine what they will learn about consumption from socialisation agents, but also which socialisation processes will influence them. Thus, financial literacy of children is qualitatively changed between early childhood and adulthood, based on their responses to interactions with the financial environment, not only by their cognitive abilities (Iqbal, 2015). Rogoff (2003) asserts that cultural processes are of crucial importance in human development. Cognitive development not only involves skills and knowledge at an individual level but is also a collective and collaborative effort involving other people around an individual who are part of his/her immediate environment. According to Arnett and Maynard (2013), human beings are biologically and culturally destined to learn a language and other cultural tools, and to learn from each other. This view recognises the role of culture and adults in the intellectual development of children, particularly through mediation that provides perspective and paves the way to exploring the possibility of accelerating cognitive development of children and adolescents by a way of human behaviour (Adey & Shayer, 2014).

### **2.2.5 Social Cognitive Theory**

Bandura (1986) integrated his own social learning theory, Piaget's (1952) cognitive development theory, and Vygotsky's (1956) sociocultural theory to argue for social

cognitive theory, which caters for social interactions, cognitions, and sociocultural perspectives. Social cognitive theory emphasises how cognitive, behavioural, personal, and environmental factors interact to determine motivation and behaviour (Crothers, Hughes & Morine, 2008). Thus, a change in one of these factors impacts the other two. Cognitive factors refer to thoughts, attitudes, personality, beliefs, and knowledge. Behavioural capacity is an individual's possession of both the knowledge and skills necessary to perform a behaviour. Personal factors mainly refer to demographic factors such as gender, race, age, and education, while environmental factors are those found in the social space in which the child operates (Crothers et al., 2008). Bandura's (1986) social cognitive theory is illustrated in Figure 2.6.



**Figure 2.6: Social cognitive theory**

Source: Bandura (1986)

As indicated in Figure 2.6, cognitive, environmental, and behavioural factors determine human behaviour. The cognitive factors of behaviour reflect the reciprocal interaction between thought, affect, and action. Expectations, beliefs, self-perceptions, goals, and intentions give shape and direction to the behaviour. What people think, believe, and feel affect how they behave. The link between environmental and personal

characteristics indicates an interactive relationship (Bandura, 1986). Thus, human expectations, beliefs, emotional bents, and cognitive competencies are developed and modified by social influences that convey information and activate emotional reactions through modelling, instruction, and social persuasion. The reciprocal causation link between behavioural and environmental factors in the triadic system represents the two-way influence between behaviour and the environment. In the transactions of everyday life, behaviour alters environmental conditions, and is, in turn, altered by the very conditions it created (Bandura, 1986).

Bandura (2001) stressed that, for learning to occur, several cognitive and affective elements must exist in the reciprocal interaction of modelling between a person such as a teacher or parents and a child. These elements are attention paid to learning, retention of what is learned, reproduction or application of learned concepts, and the motivation or intention to learn. Social cognitive theory further proposes that individuals do not simply respond to environmental influences; rather, they actively seek and interpret information (Bandura, 2001). Thus, a central view is the concept of self-efficacy. A person must believe in his/her ability to perform the behaviour and must perceive an incentive to do so. Additionally, a person must value the outcomes or consequences he/she believes will occur as a result of performing a specific behaviour or action (Ozmete & Hira, 2011).

Social cognitive theory is supported in socialisation studies. Wiese and Kruger (2016) examined parental influence on the consumer and purchase behaviour of Generation Y based on social cognitive theory. They concluded that there is a positive relationship between parental role-model influence and parental consumer behaviour, with positive effects on children's purchase behaviour. This supports Bandura's (1986) view that learning how to behave is based on observed behaviour. Agnew, Maras, and Moon (2018) employed social cognitive theory to investigate gender differences in financial socialisation. They concluded that spending modelling and enactment of mothers play an important role in the financial attitude development of their children. A study by Serido, Shim, and Tang (2013) concluded that financial knowledge and behaviour are a developmental process linked to co-occurring changes in individual self-beliefs about finances, including attitude towards financial behaviours, a sense of personal control over finances, and confidence in handling financial matters. This validated Bandura's

(1986) social cognitive theory on issues of practice and self-efficacy during learning and socialisation processes.

Social cognitive theory recognises that learning outcomes are affected by the interactions between children and their immediate and wider environments. Thus, differences in outcomes might be attributable to individual differences in intelligence, creativity, motivation, and aspect of self, such as self-concept, self-esteem, and self-efficacy (Ku et al., 2015). It is therefore more appropriate to employ an integrated approach to learning. In addition, social cognitive theory could provide an understanding of financial socialisation.

## **2.3 THEORIES OF FINANCIAL SOCIALISATION**

The origin of financial socialisation can be traced back to consumer behaviour and consumer socialisation theory, underpinned by social learning and cognitive development (Kim & Torquati, 2019). Three theories are discussed in this section, namely consumer behaviour, consumer socialisation, and financial socialisation.

### **2.3.1 Consumer Behaviour**

Consumer behaviour is the process whereby individuals decide whether, what, when, how, and from whom to purchase goods and services. It involves the psychological processes that consumers go through in recognising their needs, finding ways to meet these needs, and making purchase decisions. Consumer behaviour refers to buyers who are purchasing for personal, family, or group use (Madhavan & Chandrasekar, 2015). Thus, a consumer is able to feel wants and preferences, search to fulfil them, make a choice and a purchase, and evaluate the product and its alternatives.

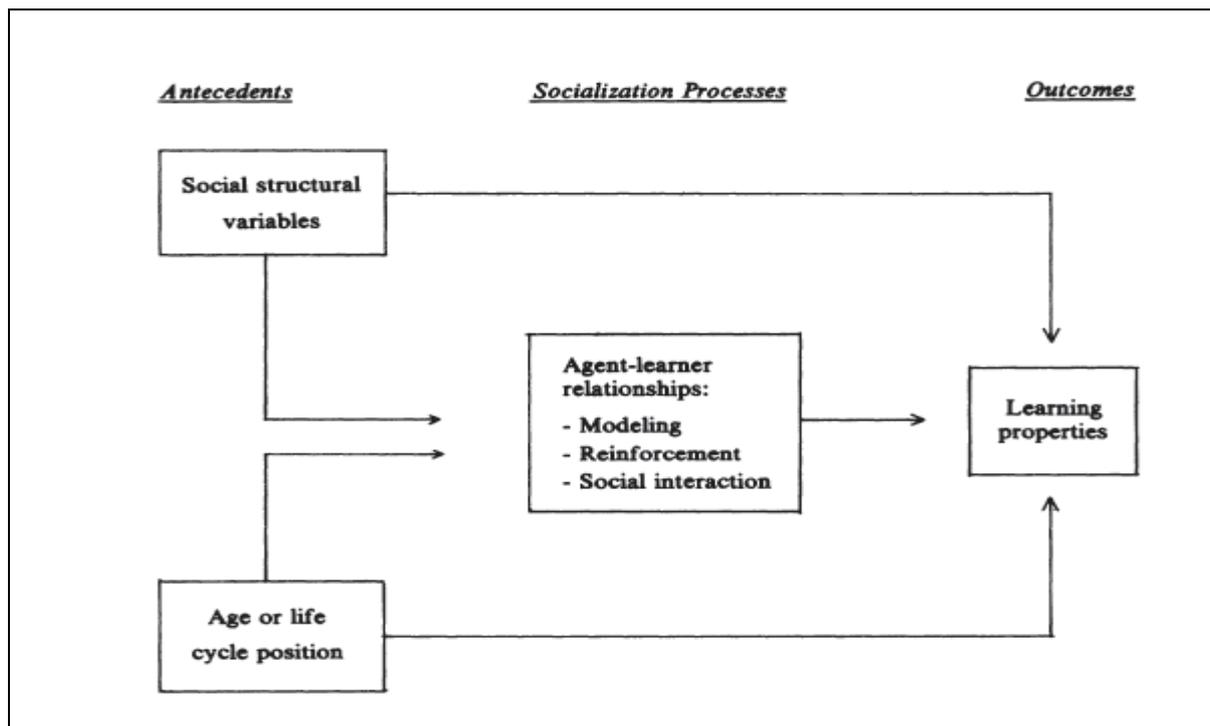
Studies in consumer behaviour have explored how children learned consumption behaviour. These studies (Reisman & Roseborough, 1955; Marshall & Magruder, 1960; McNeal, 1964) focused attention on children's consumer behaviour as early as the 1950s. For example, Reisman and Roseborough (1955) suggested that children learn consumption behaviour from their parents but learn affective consumption from peers. Marshall and Magruder (1960) found that specific money practices of parents affect children's knowledge and use of money. McNeal (1964) explored the attitudes, knowledge, and involvement of children in selected aspects of the consumer role and

suggested that much of their learning about the shopping process may occur through observation, participation, and training.

Studies of consumer behaviour of children have focused mainly on children's preferences, spending patterns, and how they influence family decision-making. Berey and Pollay (1968) found that children aged eight to 11 years influenced mothers who were highly child-centred more than mothers who were less child-centred. In the 1970s, Ward (1974) pioneered consumer socialisation theory and defined it as the process through which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace. This gave rise to new research in this field. Other researchers (Moschis & Churchill, 1978; Kuhlmann, 1983; Moschis, Moore & Smith, 1984; Moschis, 1985) followed, and research topics such as children's knowledge of products, advertising, pricing, and decision-making strategies gained popularity. Researchers argued that consumer learning can occur through a combination of models, such as observational learning, modelling, reinforcement, and social interaction, as well as through socialisation agents such as parents, family members, peers, and other influential individuals. This learning occurs during adolescence, and can be transferred through generations (Ekstrom, 2006).

### **2.3.2 Consumer Socialisation**

Moschis and Churchill (1978) introduced a general conceptual model of consumer socialisation, derived from sociological and developmental theories of socialisation, as a blueprint for discussing consumer socialisation variables. This model is shown in Figure 2.7.



**Figure 2.7: A conceptual model of consumer socialisation**

Source: Moschis & Churchill (1978)

The variables shown in Figure 2.7 are antecedents, such as social structural variables and age or life-cycle position, socialisation processes involving modelling, reinforcement, and social interaction, and learning properties, which are outcomes. The model guided research in consumer socialisation and was used to explain children’s acquisition and learning of consumer behaviour. Moschis and Churchill (1978) contended that consumer learning cannot be viewed as only a cognitive psychological process of adjustment to one’s environment; it is also a social process, because the various aspects of consumer behaviour may not be equally responsive to a given theoretical viewpoint. Additionally, behaviour is acquired and modified over the person’s life cycle, and not determined by a specific situation. Thus, children’s learning of consumer behaviour is a lifelong process, one that depends on the age or life cycle, gender, social class of the child, and the child’s relationship with the socialisation agents. The child acquires cognitions and behaviours from the agents through the process of modelling, through positive or negative reinforcement, i.e., rewards and punishments, and through social interaction.

Other researchers adopted and built on Moschis and Churchill’s (1978) model. Bellenger and Moschis (1982) constructed a socialisation model of retail patronage to

explain that shopping behaviour is a learning phenomenon that is developed and reinforced over time. They argued that consumers do not behave according to any particular model. Moschis and Churchill (1978) argued that various approaches and theories may better explain consumer behaviour, and that the application of a multi-theoretical perspective would be more fruitful. This argument was supported by Kuhlmann (1983), who reviewed approaches of consumer socialisation of children and adolescents and gave a critical overview of the theories that were used. Kuhlmann (1983) suggested theories that could be used for the description and explanation of the consumer socialisation process.

Communication researchers also contributed to the development of theories on consumer socialisation. Moschis, Morore, and Smith (1984) and Moschis (1985) extended consumer socialisation theory by focusing on the role of family communications in socialisation. Their assertions are based mostly on the communication typology of McLeod and Chafee (1972), which emphasised and described the parent–child communication structures and patterns that are important in consumer socialisation. McLeod and Chafee (1972) asserted that families valuing a conversation orientation that is open to exchanges of ideas and feelings, or valuing conformity orientation, which focuses on adherence to parental authority, can determine parental socialisation outcomes. Moschis et al. (1984) focused on the communication processes in consumer socialisation to include modelling, reinforcement, and social interaction, which influence consumer learning in the transmission of consumer cognitions and behaviour from parent to child. Their contention is that, first, overt parent–child communication about consumption is associated with children obtaining relevant consumer knowledge. Second, modelling behaviour can be achieved through non-verbal communication, where children observe their parents' consumer behaviours; thus, children's perceptions of consumer-related norms are acquired through observational learning. Finally, positive reinforcement strongly relates to consumer activities, suggesting that such reinforcement may encourage children to perform positive activities.

Moschis (1985) asserted that a child's consumer behaviour is influenced by the family's communication structure and patterns. Thus, there is difference in consumer behaviour of children from families that use a socio-oriented or a concept-oriented communication structure. The socio-oriented structure fosters the development of

consumer needs and behaviours geared towards emulating others and conforming to generally accepted norms, which facilitates effective learning. Concept-oriented communication fosters the development of consumer needs and behaviours geared towards evaluating alternatives according to their objective attributes, which influences children to behave according to a rational or economic model (Moschis, 1985). Recent studies in consumer socialisation (Buijzen & Valkenburg, 2008; Romo & Vangelisti, 2014) also postulate that parent–child financial communication influences children’s consumer behaviour, and that it often results in a product purchase in supermarkets and stores.

Consumer socialisation theory is supported by empirical evidence. Serido, Curran, Wilmarth, Ahn, Shim, and Ballard (2015) employed consumer socialisation theory to examine the influence of parents and romantic partners on college students’ financial attitude and behaviour. They concluded that parents’ and romantic partners’ financial behaviour positively predict students’ financial attitude, which, in turn, positively influences students’ financial behaviour. Similarly, Shim, Serido, Tang, and Card (2015) investigated socialisation processes and pathways to healthy financial development of emerging adults. They reported that emerging adults develop positive and healthy financial behaviours when their parents communicate financial matters directly with them.

Danes (1994), however, denounced consumer socialisation theory as being very narrow. Danes (1994) argued that it should be expanded to include much broader aspects of financial viability and financial well-being. In support of this view, John (1999), after reviewing consumer socialisation studies of the previous 25 years, asserted that these studies had focused on topics such as conspicuous consumption, use of money, and brand loyalty in studies of children’s understanding of marketing and retail functions, their impact on parents’ purchasing decisions, and the influence of peers on their consumption.

### **2.3.3 Financial Socialisation Theory**

Danes (1994) introduced financial socialisation theory. The terms *financial socialisation* and *consumer socialisation* are sometimes used interchangeably in literature on the development of children’s financial literacy; however, these terms are different. Financial socialisation was derived by Danes (1994) from the definition of

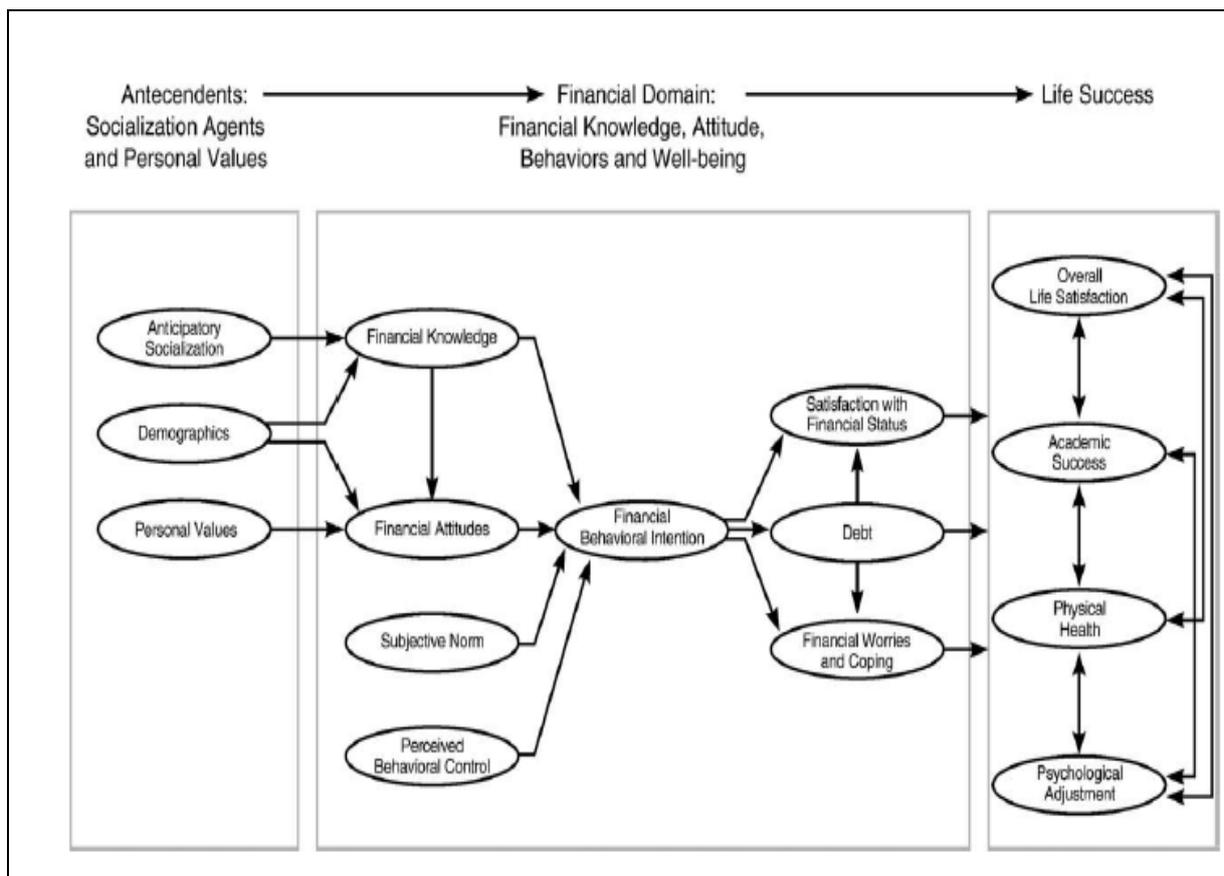
consumer socialisation of Ward (1974). Danes (1994) argued that financial socialisation is the process whereby people obtain and develop financial knowledge, values, and behaviour that affect their financial behaviour and money management. This definition of Danes (1994) provides a comprehensive view of financial socialisation and includes the concepts of financial viability and well-being. Thus, financial socialisation is not only about learning financial skills, attitudes, standards, norms, and behaviours from childhood through adolescence, but is more concerned about what the socialisation process contributes to the overall financial well-being of individuals.

The comprehensiveness of financial socialisation is evidenced by the many broad areas of money handling, such as learning about earning, spending, saving, borrowing, sharing, maintaining and increasing money, insurance, taxes, wills, and investment (Alhabeeb, 1996). According to Fox, Bartholomae, and Lee (2005), saving- and spending behaviours begin to form at an early age. These behaviours start within the family, through both formal and informal methods of teaching. This teaching includes the intergenerational transfer of knowledge, which occurs through observation, modelling, informal discussions, and direct teaching, which can help adolescents and young adults develop behaviours that lead to financial well-being throughout their life (Shim et al., 2010). According to Allen (2008), young adults reported that they learned most of their financial management knowledge and -skills from their parents. Thus, good financial attitudes are significantly related to better financial behaviours such as saving and money management and are negatively correlated to problematic outcomes such as financial distress (Shim et al., 2010).

Financial socialisation is a life-long process that is influenced by numerous socialisation agents, such as family, teachers, peers, and the media. Factors such as gender, socio-economic conditions of the family and the surrounding community, race, ethnicity, types of financial products that are available, public policies, and macro-economic trends are likely influential in financial socialisation (Gudmunson, Ray & Xiao, 2016).

However, the field of financial socialisation still lacked proper direction due to a lack of consensus on a conceptual model and measurements. Shim et al. (2009) sought to provide this direction by integrating four prominent theories: the theory of lifespan

development (Baltes, 1987), the hierarchical model of personal values, attitudes, and behaviour (Homer & Kahle, 1988), consumer socialisation theory (Moschis, 1987), and the theory of planned behaviour (Ajzen, 1991). Shim et al. (2009) proposed a conceptual model as a way to examine financial well-being in young adulthood by combining three domains: 1) socialisation agents and personal values, 2) financial knowledge, attitudes, behaviour, and well-being, and 3) overall life success. The premise of their model is that, in acquiring financial knowledge and developing attitudes and behaviours, young adults are influenced by antecedents such as personal values, parent socialisation, and formal education. Furthermore, young adults' financial knowledge, attitudes, and behaviours, along with subjective norms (parental expectations) and their own perceived behavioural control, are then linked to their financial well-being, which, in turn, is linked to their overall life success. Figure 2.8 contains the Conceptual Model of Financial Well-being for Young Adults proposed by Shim et al. (2009).



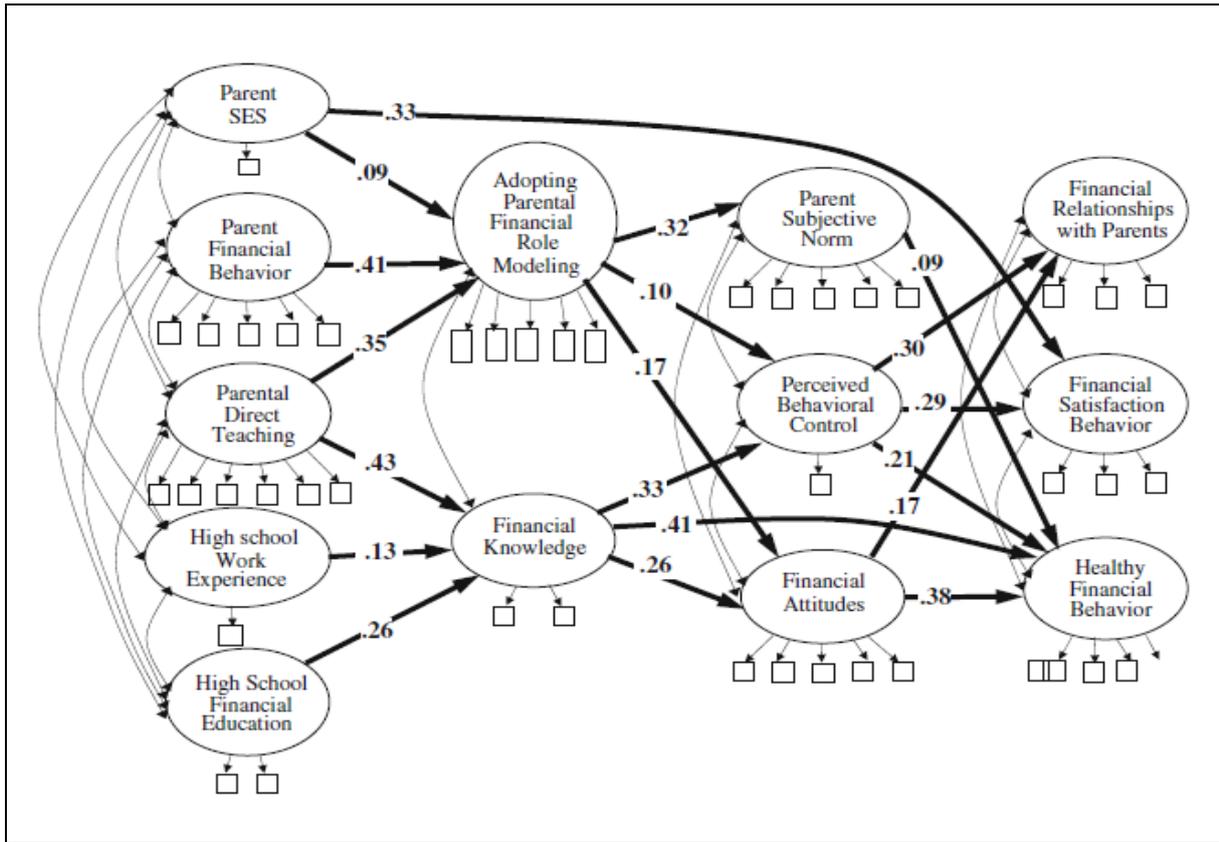
**Figure 2.8: Conceptual Model of Financial Well-being for Young Adults**

Source: Shim et al. (2009)

As indicated in Figure 2.8, the antecedent variables, such as *socialisation agents* and *personal values*, influence financial domain variables like *financial knowledge*, *attitudes*, *behaviours*, and *well-being*, which, in turn, impact life success variables *overall life satisfaction*, *academic success*, *physical health*, and *psychological adjustment*. Therefore, the importance of financial socialisation is visible, not only in financial well-being, but also in other aspects of life that contribute to individual well-being.

To better understand financial socialisation and why young adults in college adopt risky behaviours such as overspending their budgets, accruing excessive credit card debt, and failing to pay debts on time, Shim et al. (2010) examined several socialisation processes, including those that occur during adolescence and may account for differences in financial literacy. They proposed a structural hierarchical financial socialisation process in which all anticipatory pre-college socialising experiences (parental SES, parental financial behaviour, parental direct teaching, high school work experience, and high school financial education) predict all financial learning outcomes (adopting parental financial role modelling, financial knowledge). These outcomes, in turn, predict financial attitudinal outcomes (parental subjective norms, perceived behavioural control, and financial attitude), which then predict financial behavioural indicators (financial relationship with parents, financial satisfaction, and healthy financial behaviours).

In developing their model, Shim et al. (2010) were guided by the theory of consumer socialisation (Moschis, 1987) and the theory of planned behaviour (Ajzen, 1991). Their argument is that consumer socialisation provides a framework that delineates the financial socialisation agents that influence young adults. It also highlights the anticipatory financial socialisation through young adults' interaction with socialisation agents during adolescence, which influences learning outcomes and, subsequently, learners' attitudes and behavioural indicators. The theory of planned behaviour provides a framework for how one's behaviour is influenced by attitude towards the behaviour, subjective norms, and perceived behavioural control. This process is indicated in Figure 2.9.

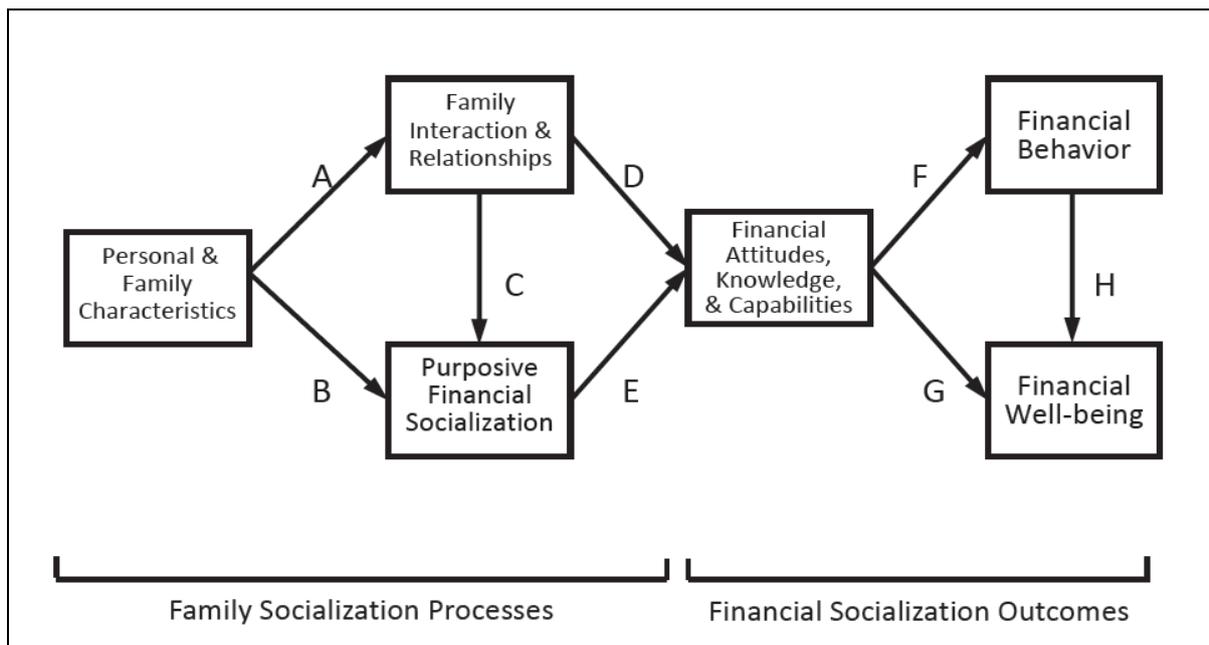


**Figure 2.9: Structural Model of Financial Socialisation Processes**

Source: Shim et al. (2010)

**2.3.4 Family Financial Socialisation Model**

In quest to find a suitable model that would explain financial socialisation, Gudmunson and Danes (2011) critically reviewed financial socialisation literature on family studies and financial literacy perspectives. Drawing from Moschis and Churchill's (1978) Conceptual Model of Consumer Socialisation, Gudmunson and Danes (2011) developed the Conceptual Family Financial Socialisation Model to indicate how family financial socialisation impacts financial socialisation outcomes. Their model differs from that of Shim et al. (2009) and Shim et al. (2010), because it incorporates *Family characteristics* and *Family interactions & relationships* into *financial socialisation*. The model is shown in Figure 2.10.



**Figure 2.10: Family Financial Socialisation Model**

Source: Gudmunson & Danes (2011)

As shown in Figure 2.10, the model of Gudmunson and Danes (2011) indicates that demographic characteristics are found at personal and family level. Some demographic characteristics, like gender and age, race/ethnicity, and marital status, tend to be most important on the individual level, while household size, family development stage, and SES tend to be measured at the family level. The model poses demographic characteristics as predictors rather than control variables, and these are tied to financial socialisation through family socialisation processes. The interaction patterns between family members influence financial attitude, knowledge transfer, and financial capability development, even when financial socialisation is implicit (Gudmunson & Danes, 2011).

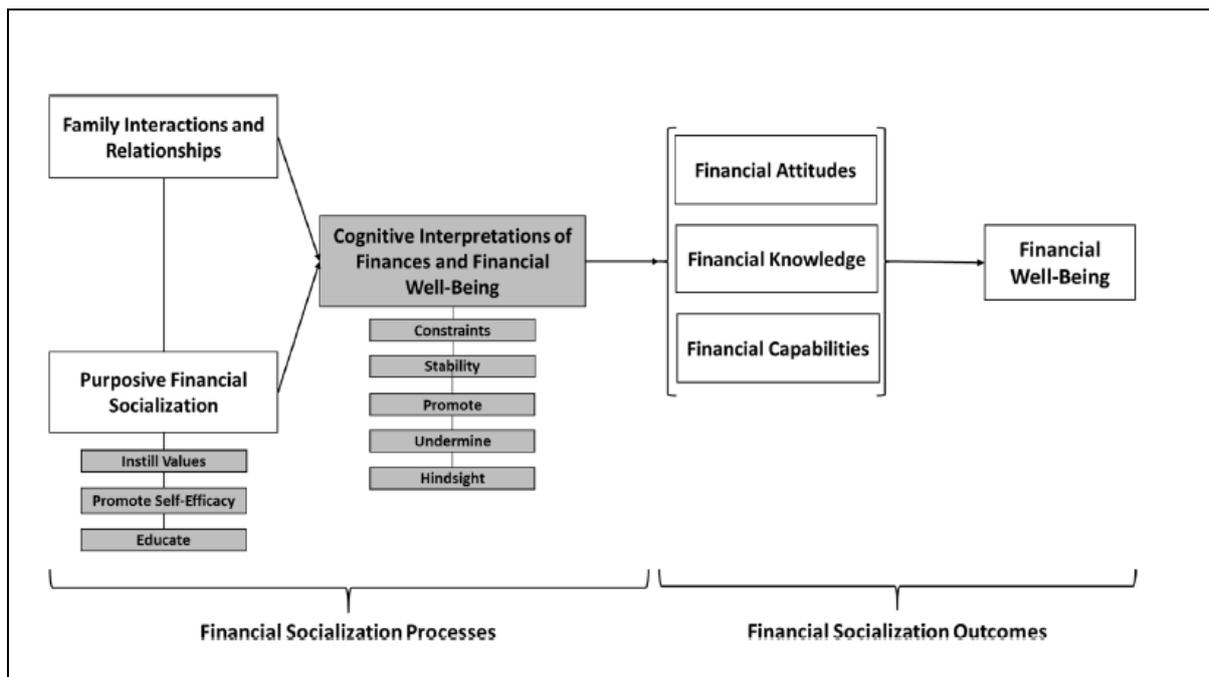
The model incorporates constructs such as family interpersonal communication, relationship quality, and parenting style to explain and measure family interaction and relationships. Furthermore, purposive family financial socialisation occurs through intentional efforts by family members to financially socialise each other. These efforts vary according to race/ethnicity and nationality. Characteristics such as gender, age, family structure, and family relationship type highlight family roles tied to cultural values and norms that underlie financial practices. The model also contains the paths from financial attitudes, knowledge, and capabilities to behaviour and financial well-

being, which are intermediary financial socialisation outcomes indicating socially imbued individual characteristics adapted over time (Gudmunson & Danes, 2011).

The model of Gudmunson and Danes (2011) guided research in financial socialisation; other researchers constructed financial socialisation models based on this model, with some adopting it without change in their studies (Gudmunson & Beutler, 2012; Chowa & Despard, 2014; Tang, Baker & Peter, 2015; Jorgensen, Foster, Jensen & Viera, 2017; Jorgensen, Rappleyea, Schweichler, Fang & Moran, 2017; Antoni, 2018; Fulk & White, 2018; Zhu, 2018; Zhu & Chou, 2018; Kim & Torquati, 2019; Rea, Danes, Serido, Borden & Shim, 2019). These efforts to build an understanding of financial socialisation have been criticised for financial socialisation models seemingly focusing mainly on family interactions and relationships, purposive financial socialisation, and financial socialisation outcomes, with very little attention to the cognition of the child. The main narrative here is that children have different levels of cognitive ability, which will influence how they process financial information.

Guided by Piaget's theory of cognitive development, John (1999) and Beutler and Dickson (2008) demonstrated stages of consumer socialisation through which children progress from perceptual stage to the analytical stage, and then the reflexive stage, with each stage tied to the complexity of consumer information as children progress. However, acknowledging such progress has been lacking in financial socialisation literature — linking the cognitive abilities of children as they mature with financial socialisation (Van Campenhout, 2015). Although some studies stressed the importance of doing so, few have attempted to link the ability of children to save and their financial well-being with their cognitive development (Fredline, 2015; Drever et al., 2015) by providing a model or a framework that incorporates cognition into financial socialisation.

However, Rea et al. (2019) recently responded to this criticism by extending family financial socialisation theory and the conceptual model of Gudmunson and Danes (2011) by including cognitive interpretations of finances into financial well-being. Their main focus was on the internal cognitive processes engaged in by young adults to define and understand financial well-being, as well as the family context in which these cognitions are grounded. Figure 2.10 shows the Family Financial Socialisation Model with the cognitive interpretations included by Rea et al. (2019).



**Figure 2.11: Family Financial Socialisation Cognitive Interpretations Model**

Source: Rea et al. (2019)

As shown in Figure 2.11, Rea et al. (2019) removed *Personal and family characteristics* as a variable and extended *Purposive financial socialisation* to include variables such as *Instill values*, *Promote self-efficiency*, and *Educate*. Furthermore, to complete *Cognitive interpretations of finances and financial well-being*, the variables *Constraints*, *Stability*, *Promote*, *Undermine*, and *Hindsight* were included. *Purposive financial socialisation* was focused on deliberate actions and communications intended to impart knowledge and understanding about finances and financial behaviours. Cognitive interpretations of finances and financial well-being were centred around the fact that financial socialisation is implicit and, as a result, is subject to different interpretations. These differences involve a cognitive process by which financial socialisation contributes to attitudes, knowledge, and capabilities, and, in turn, these cognitions form a definition of financial well-being (Rea et al., 2019). Notable in the model is that the cognitive interpretations of finances and financial well-being are linked to young adults, not to parents. Put differently, maybe the question would be whether parents' cognitive interpretations of finances contribute to the financial well-being of young adults.

Parents as the main influence on their children must be incorporated more in financial socialisation models to try to understand their role in young adults' financial literacy.

Shim et al. (2010) found that parents are an important socialisation agent in anticipatory financial socialisation, where children learn about money and develop financial management behaviour. Thus, financial socialisation at an early age could play an important role in the financial behaviour of children when they reach young adulthood, and even in the process of transition to adulthood.

Financial socialisation theory argues for socialisation that takes place through interaction of the person and various agents in specific social settings. These agents are often referred to as 'financial socialisation agents', and include parents, school, mass media, and peers. Of these four agents, parents are mostly available from infancy through adolescence, supporting children's physical and psychological development. Moreover, the knowledge children acquire from parents affects the things they learn from other agents, as parents do not cease to act as socialisation agents when their children leave home. Therefore, parental influence remains a potentially important socialising force in early adulthood (Gudmunson & Danes, 2011; Albeerdy & Gharleghi, 2015; Shim et al., 2015).

Financial socialisation theory further postulates that children also learn financial management behaviour through observations, participation, and intentional instruction by socialisation agents. This indicates that the financial socialisation process can occur purposively or non-purposively. Further, the process is not a formalised system, as incidental learning also plays a major part. Thus, the association between financial socialisation agents and children mediates financial socialisation. Money management skills may develop because of purposive parental financial teaching, positive reinforcement, or observation of parental financial behaviours. Further, children are more knowledgeable about money matters when they are given wider experience and more opportunities for saving and spending, and when their parents handle their own income wisely (Danes, 1994; Gudmunson & Danes, 2011; Danes & Yang, 2014).

The financial socialisation process is dependent on social structural variables and individual variables. Social structural variables may include parents' SES (income, education level, and occupation), family size, culture, and/or ethnic background. Individual variables may include age or life cycle, and gender and cognitive abilities of the child (Moschis & Moore, 1979). Social structural and individual variables may differ from family to family, may change over time, and may have different impacts on

different children's financial socialisation (Kamaruddin & Mokhlis, 2003; Ameliawati & Setiyani, 2018).

Financial socialisation theory is widely used in financial socialisation studies and has produced some mixed results. Glenn (2018) employed this theory and found that parental financial socialisation alone has no impact on the financial knowledge of young adults. Fan and Chatterjee (2019) found that parental financial socialisation is negatively correlated with late payment of student loans and worrying about study debt. According to Hudson et al. (2017), a lot remains unknown about factors that influence sociodemographic differences in financial outcomes based on financial socialisation theory. This is one of the reasons why the current study included social structural variables in the model, such as culture and parental SES.

The Family Financial Socialisation Model of Gudmunson and Danes (2011) was selected as the most appropriate model to account for and examine the influence of parental financial socialisation on the financial literacy of young adults. Despite its shortcomings, the model was preferred because it provides a better explanation of parental influence on financial literacy than the other financial socialisation models discussed here. The Family Financial Socialisation Model (Gudmunson & Danes, 2011) takes into account the various demographic variables of gender, age, and race, as well as family characteristics such as family size and parental SES as predictors of financial outcomes, through their association with the family socialisation process.

## **2.4 THEORIES OF FINANCIAL LITERACY**

Financial literacy refers to people's ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions (Lusardi & Mitchell, 2014). Financially literate individuals are better at budgeting and controlling spending, following recommended financial practices, handling mortgage and other debt payments, saving money for the future, and planning for retirement (Lusardi & Mitchell, 2014). Studies have attempted to explain why some individuals make prudent financial decisions and save more while others do not (Lusardi, 2008; Grohmann, 2018). To explain this phenomenon, researchers use finance theories, which are categorised as traditional finance theories and behavioural finance theories. Five traditional finance theories, namely the efficient market hypothesis, expected utility, modern portfolio theory, the permanent income hypothesis, and the life-cycle

savings hypothesis, and three behavioural finance theories, namely bounded rationality, prospect theory, and theory of planned behaviour, are discussed in this section.

Traditional finance theories such as the efficient market hypothesis (Fama, 1970), expected utility (Von Neumann & Morgenstern, 1944), modern portfolio theory (Markowitz, 1952), permanent income hypothesis (Friedman, 1957), and life-cycle savings hypothesis (Modigliani & Brumberg, 1954) assume that consumers are fully informed and can make rational choices in their long-term financial planning to maximize their utilities. Thus, these theories assume rationality of agents and efficiency of markets and use the variance as a risk measure. The theories suggest that individuals weigh negative returns equally with positive returns (Hens & Bachmann, 2008).

#### **2.4.1 Efficient Market Hypothesis**

Fama (1970) introduced the efficient market hypothesis, which proposes a market in which prices always fully reflect available information. The efficient market hypothesis asserts that financial markets are efficient, that all market participants are rational, and that information is reflected in prices. This has caused some confusion. However, Ritter (2003) explained that the efficient market hypothesis does not assume that all investors are rational, but that it does assume that markets are rational.

#### **2.4.2 Expected Utility Theory**

Expected utility theory was developed by Von Neumann and Morgenstern (1944) and holds that market participants make their decisions under risk by comparing the expected utility values of the available options. It assumes that market participants choose between alternatives in a rational manner and select choices with the highest expected utility outcomes. It has been generally accepted as a normative model of rational choice and is widely applied as a descriptive model of economic behaviour. Thus, it is assumed that all reasonable people would wish to obey the axioms of the theory. The analysis of decision-making under risk is, to a large extent, dominated by the expected utility theory (Hens & Bachmann, 2008). In its most basic form, expected utility theory assumes that people would make the same choice in terms of riskiness, regardless of the situation or event. It identifies individuals as a set of well-defined

preferences and treats an action as rational if it is the one most likely to satisfy these preferences. More specifically, it treats individuals as choosing under risk, where outcomes of actions have a determined probability, but do not obtain with certainty. This theory, sometimes referred to as *rational choice theory*, has been widely accepted as the basis for various standard economic and finance theories, and is increasingly used in other social and behavioural sciences. Despite criticisms, expected utility theory, without doubt, is the major paradigm in decision-making (Grune-Yanoff, 2007).

### **2.4.3 Modern Portfolio Theory**

The modern portfolio theory proposed by Markowitz (1952) provides an explicit set of assumptions that underlie rational decision-making and shows how rational investors base their portfolio selection decisions on two parameters, namely expected reward and variance, and posits that investors should use diversification to optimise their portfolios. This theory is based on the expected utility theory and assumes that agents know the probability distribution of future market risk. The modern portfolio theory is premised on a risk-averse individual constructing a diversified portfolio that maximises the individual's satisfaction by maximising portfolio returns for a given level of risk. Within this theory, investors develop risk-and-return trade-offs, where investors prefer high returns with low risks. Generally, modern portfolio theory predicts that investors would only be willing to take additional risk if the return associated with the risk is high (Grable, 2016). However, modern portfolio theory fails to explain how decisions are made by individuals under real circumstances, where people do violate the principles of rationality. This implies that people, for example, do not diversify their portfolio, but are happier investing in a certain category of investments only, or that people are not always risk averse (Sahi, 2012).

### **2.4.4 Permanent Income Hypothesis**

Friedman (1957) developed the permanent income hypothesis, an important theory relating to human behaviour and consumption. This theory suggests that people adjust their spending level to their perceived level of future income. Permanent income is what people can confidently expect to receive. Transitory income is income that is received accidentally or by chance and is not expected to affect long-term consumption (Friedman, 1957). Precautionary saving is intended to safeguard against

declines in future income. The precautionary savings model suggests that older adults are cautious about spending down their assets. The reluctance to spend down assets is explained by uncertainty about longevity, the cost of health care in the future, and the possibility of becoming impoverished (DeVaney, 2016). In its simplest form, permanent income hypothesis theory states that the choices made by consumers regarding consumption patterns are determined, not by their current income, but by their longer-term income expectations. The main conclusion of this theory is that transitory, short-term changes in income have little effect on consumer spending behaviour (Friedman, 1957).

#### **2.4.5 Life-cycle Savings Hypothesis**

Modigliani and Brumberg (1954) introduced the life-cycle hypothesis of saving as an extension of the permanent income hypothesis, sometimes referred to as the life-cycle savings model. These terms are used interchangeably in literature, and also in this study. The life-cycle hypothesis suggests that people try to maintain a relatively stable level of consumption over their lifetime. This behaviour is observed when those who are younger borrow to meet consumption needs, those who are middle-aged save a relatively large proportion of their earnings, and those who are older spend down their assets when their income is reduced in retirement. A strict interpretation of the life-cycle hypothesis suggests that people will spend all of their assets before the end of their life. However, this may not be exactly the case, as people reduce their consumption as they age. The aim is to retain assets to provide for unexpected increases in both longevity and healthcare expenses (DeVaney, 2016).

The Life-cycle Savings Model was developed to explain household saving patterns in a prescriptive theory that assumes a household will maximise expected utility from consumption (Modigliani, 1986). If consumers face a real interest rate of zero and do not discount future consumption, they will seek to have equal consumption over their life span. If these extreme simplifying assumptions are relaxed, implications of the Life-cycle Model are much more complex (Hanna, Fan & Chang, 1995).

The Life-cycle Savings Model is supported in finance literature. Hanna et al. (1995) showed how expected growth in earnings, risk tolerance, and real interest rates impact optimal saving at different ages. They concluded that life-cycle theory does not necessarily imply a smooth consumption path. A high real interest rate, for example,

induces households to spend less in the present and more in the future. This could also explain why young households in a low interest rate environment save less. Likewise, Yuh and Hanna (2010) provided a clear explanation, based on the Life-cycle Savings Model, why, for example, those with a higher level of education expect higher future earnings and save less early in life. They argue that the central tenet of the Life-cycle Savings Model is that agents attempt to keep the marginal utility of consumption constant over time. However, they concluded that the normative Life-cycle Savings Model does not match up with observed saving behaviour, for example, homeowners should save less for retirement, but in reality, they save more (Yuh & Hanna, 2010).

Lusardi and Mitchell (2014) developed a life cycle saving model that addresses the role of financial literacy. This model predicts that financial literacy is endogenously determined over the life cycle. Thus, consumers invest in financial knowledge to the point where their marginal time and money costs of doing so are equal to their marginal benefits. They concluded that consumers who receive financial education would increase their ability to manage their money and perform better financially than their counterparts who do not receive financial education. Although the Life-cycle Savings Model does not seem to describe consumer behaviour well at the household level or at the aggregate level, it is the only rigorous model to provide a prescriptive answer to the question of how much a consumer should save (Hanna et al., 1995).

Traditional finance theories have, however, been criticised by behavioural finance theorists for being unable to explain disruptions in the stock markets, as being simplistic and unpragmatic (Raiffa & Raiffa, 1968; Kahneman & Tversky, 1979). De Bondt and Thaler (1985) discovered that stock prices overreact, evidencing weak form of market inefficiencies. This contradicted Fama (1970), who held that markets are efficient. Moreover, consumers are, in fact, not fully informed, and cannot make rational choices even when information is available or can be obtained at low or no cost, as suggested by the traditional finance theories (Xiao, 2016). The ideal of rational decision-making has been challenged on cognitive and social grounds. Studies in cognitive psychology and behavioural finance have provided evidence that emotions, perceptions, and cognitive frames are used widely in financial decision-making (De Bondt, Muradoglu, Shefrin & Staikouras, 2008; Fenton-O'Creevey, Soane, Nicholson & Willman, 2010). The social aspects that influence financial decision-making are restricted mainly to imitative processes through which investors or traders follow the

actions of their peers (Della Vigna, 2009). Expected utility theory does not fit with individuals' behaviour, but it is a good normative framework for financial decision-making. It has also been criticised for not fully describing actual behaviour (Hens & Bachmann, 2008).

Behavioural finance theories such as bounded rationality (Simon, 1955), prospect theory, and theory of planned behaviour indicate that the behaviours of individuals in theory differ from their behaviours in practice. These theories are discussed below.

#### **2.4.6 Bounded Rationality Theory**

Classical financial models cannot explain and predict all financial decisions, because human cognitive abilities are not infinite; humans they have limited computational and conceptual skills and flawed memories (Jureviciene & Ivanova, 2013; Nigam, Srivastava & Banwet, 2018). Moreover, individuals perceive risk differently, so that individual risk preferences are not determined solely by deviations from the mean but depend significantly on the gains and losses with respect to a certain reference point (Hens & Bachmann, 2008). People do not always think rationally, and they do make systematic errors, sometimes due to overconfidence, illiteracy, or just to preference (Ritter, 2003).

Bounded rationality theory was constructed by Simon (1955) and argues that rationality is bounded because there are limits to our thinking capacity, available information, and time. Full rationality requires unlimited cognitive capabilities and a choice between all possible alternative behaviour; in reality, only a few alternatives come to mind. In addition, human beings are very different, and their cognitive capabilities are quite limited; their rationality is restricted and bounded within the limits of their knowledge (Hernandez & Ortega, 2019). This theory states that people are not inclined to gather all the required information to make financial decisions, because of an incapability of getting all the information available and an inability to digest the information even if they were to get it. Simon (1955) challenged the notion of human rationality as implied by traditional finance theories, and proposed replacement of the idea of utility maximisation with a more realistic view of economic behaviour involving satisficing and adaptation of aspiration levels to success and failure. Three features characterise Simon's (1955) view of bounded rationality, namely a search for alternatives, satisficing, and aspiration adaptation, where alternatives are not given,

but are found one after the other in a search process. In the simplest process, the search process goes on until a satisfactory alternative is found, one which reaches or surpasses the aspiration levels of the goal variables, and this alternative is then taken. When the alternative is chosen, the satisficing level has been reached by navigating the aspiration adaptation levels. Aspiration levels are not fixed, but are dynamically adjusted to the situation (Selten, 1999).

The theory of bounded rationality is supported in finance literature. Recently, Hernandez and Ortega (2019) employed bounded rationality to study the relationship between rationality and decision-making. They found that bounded rationality occurs when there is lack of context information regarding the results of actions, when the individual is forced to make less than optimal decisions because of adjustment to the conditions of operations. They concluded that bounded rationality sees the decision-making process from a very different point of view. In the decision-making process, even in relatively simple problems, a maximum cannot be obtained, since it is impossible to verify all possible alternatives. Moreover, people differ in both available opportunities and desires, influenced by environmental factors. Thus, when individuals must decide, these factors influence them in both the desires they have and the opportunities they think they have.

#### **2.4.7 Prospect Theory**

Kahneman and Tversky (1979) developed prospect theory as an alternative explanation of how individuals make decisions under risk. They noted that the magnitudes of potential loss and gain amounts, the chances of their occurrence, and the exposure to potential loss contribute to the degree of threat in a risky situation. This led Kahneman and Tversky (1979) to conclude that people are consistently more willing to take risks when certain losses are anticipated, and to settle for sure gains when absolute rewards are expected. They explained that prospect theory holds that individuals evaluate outcomes with respect to deviations from a reference point, rather than with respect to net asset levels, that they give more weight to losses than to comparable gains, and that they are generally risk-averse with respect to gains and risk-acceptant with respect to losses.

There are two specific phases in prospect theory, namely editing and evaluation. The editing phase is the process of initially analysing the presented choices, where the

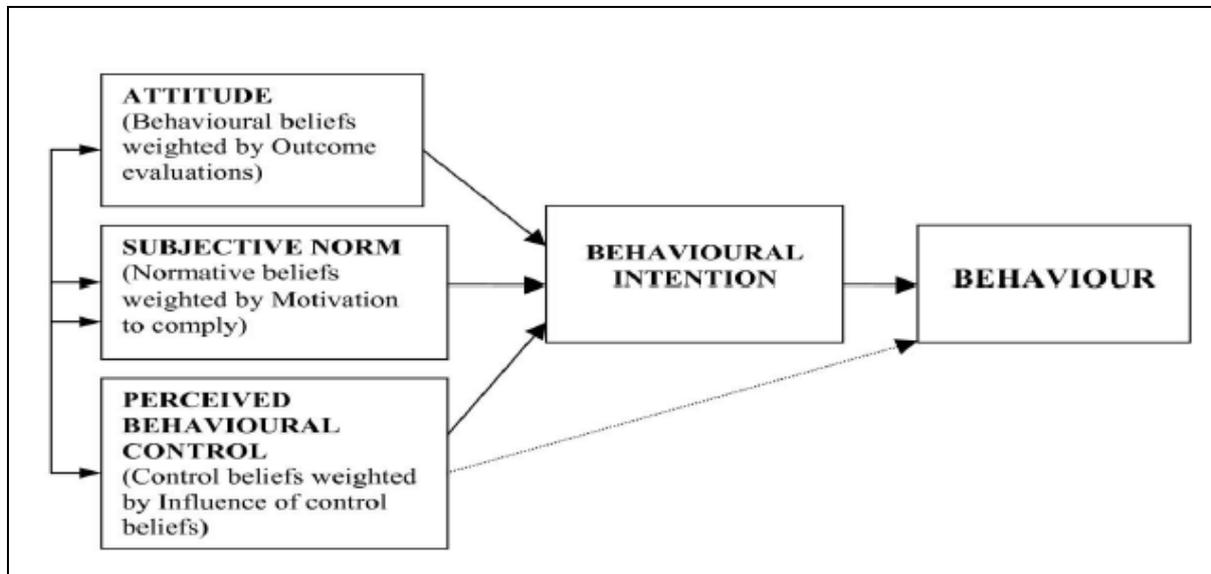
individual simplifies the choices. During this phase, individuals perform multiple operations on the presented choices, such as coding, combining, segregating, and cancelling components of the presented choices (Kahneman & Tversky, 1979). Coding occurs when the individual assigns a reference point to a decision and then views the choice as either a gain or a loss of wealth. The expectations of the decision-maker and how the choices are presented could impact where the reference point is assigned and the coding of the outcomes as gains or losses. The action of combining occurs when individuals simplify the elements of a choice by combining probabilities that are associated with the same outcome. Segregation occurs when individuals separate risky options from non-risky ones in each choice. Lastly, cancellation is the process of ignoring components of a decision that are found in both choices and ignoring outcome-probability pairs that exist in choices (Kahneman & Tversky, 1979).

The editing phase is difficult to predict, because the editing process is impacted by the individual's behaviour and expectations. In the evaluation phase, using the edited choices, the decision-maker selects the choice that has the highest value. The highest value is determined by the product of a weighting function and the value of a choice's outcome, often referred to as the *value function*, which measures the desirability of the event, instead of only the probability of the event occurring (Kahneman & Tversky, 1979). The value function is gains and losses with respect to some natural reference point, is concave in gains and convex in losses and is steeper for losses than for gains. Thus, individuals may behave risk-seeking in order to avoid losses, while they may exhibit risk-averse behaviour to secure gains (Hens & Bachmann, 2008). Although prospect theory as part of behavioural finance theories is supported in literature and preferred compared to traditional finance theories, it is limited in its ability to comprehensively explain the behaviour of the decision-maker in uncertain and risky environments. While it helps to explain how people act and interact when making financial decisions, it does not explain why and how these behaviours occur (Sahi, 2012).

#### **2.4.8 Theory of Planned Behaviour**

Behavioural finance theory, which was borrowed from the field of psychology that seems to explain human behaviour, specifically financial behaviour, is the theory of planned behaviour (Xiao, 2016). The theory of planned behaviour was proposed by

Ajzen (1991) as an extension of the theory of reasoned action, to which the component of perceived control to determine behaviour intention and behaviour was added. Figure 2.12 illustrates the theory of planned behaviour.



**Figure 2.12: Theory of planned behaviour**

Source: Ajzen (1991)

As indicated in Figure 2.12, the theory of planned behaviour focuses on factors that determine individuals' actual behavioural choices. According to this theory, three factors influence behavioural intention, namely the positive or negative valence of attitudes about the target behaviour, subjective norms, and perceived behavioural control. In turn, behavioural intention influences actual behaviour. An attitude towards a behaviour is recognised as a person's positive or negative evaluation of a relevant behaviour and is composed of a person's salient beliefs regarding the perceived outcomes of performing a behaviour (Ajzen, 1991). A subjective norm is a person's perception of whether significant referents approve or disapprove of a behaviour. To capture non-volitional aspects of behaviour, the theory of planned behaviour incorporates an additional variable, namely perceived behavioural control, which is not typically associated with traditional attitude-behaviour models (Xiao, 2016). Perceived behavioural control describes the perceived difficulty level of performing the behaviour, reflecting both past experience and anticipated barriers. The more favourable the attitude towards performing a behaviour is, the greater the perceived social approval is, and the easier the performance of the behaviour is perceived to be, the stronger

the behavioural intention will be. In turn, the greater the behavioural intention is, the more likely it is that the behaviour will be performed. In addition, the perceived control may affect the behaviour directly (Ajzen, 1991).

The theory of planned behaviour has been supported in empirical studies (Xiao & Wu, 2008; Shim et al., 2009; Shim et al., 2010; Xiao, Tang, Serido & Shim, 2011; Serido et al., 2015). Xiao and Wu (2008) applied the theory of planned behaviour to examine factors associated with consumer behaviour in completing a debt management plan. They found that attitude towards the behaviour and perceived control affect the actual behaviour, but that subjective norms do not. Likewise, Shim et al. (2009) employed the theory of planned behaviour to determine the antecedents and consequences of financial well-being in young adulthood. They concluded that young adults' perceived behavioural control, along with attitudes and parental subjective norms, were broadly related to various aspects of financial well-being and financial behaviours.

Shim et al. (2010) found that all three components of the theory of planned behaviour — financial attitude, perceived behavioural control, and subjective norms — were significantly related to financial behaviour. Xiao et al. (2011) employed the theory of planned behaviour to investigate young adults' risky credit card behaviour and the role of parents in the financial behaviour of young adults. Xiao et al. (2011) found that parental norms are an important factor that influences young adults' risky credit behaviours. They concluded that behavioural intention is the most important factor in preventing risky credit behaviours and the accumulation of credit card debt. Serido et al. (2015) applied the theory of planned behaviour to examine the influence of parents and romantic partners on college students' financial attitude and behaviour. They found that parents' and romantic partners' responsible financial attitude and financial behaviour have a positive, direct effect on college students' financial behaviour. Despite this support and confirmation in literature, the theory of planned behaviour has been criticized for being incomplete when applied to complex human behaviour. According to Ajzen (2002), Thomas (2013) and Jokonya (2015), this theory is inadequate, as it excludes habits, emotions, moderators, and relationships between determinants and predictors.

Although there is general supporting evidence in empirical literature, behavioural finance theories have been criticised for being somewhat ad hoc and designed to

explain specific stylised facts. Another common criticism is that the empirical work is plagued by data mining; that is, if researchers set out to find deviations from rational pricing by running numerous regressions, they will ultimately be successful. Moreover, it is often claimed that behavioural finance theories present no unified theory, unlike traditional finance theories using rational belief (Subrahmanyam, 2007). However, despite its shortcomings and criticism the theory of planned behaviour has been adopted in this study as it explains the behaviour of individuals to be financial literate better than any other financial literacy theories discussed.

## **2.5 SUMMARY**

A number of theories were discussed in this chapter, together with the rationale for the choice of theory for the present study. The chapter discussed socialisation theories, financial socialisation theories, and financial literacy theories. Socialisation theories, such as observational learning theory, social learning theory, cognitive development theory, social cognitive theory, and sociocultural theory, hold that children learn through social interactions with others in a social setting, and they begin to understand and form their attitudes, behaviours, and knowledge about finances. Cognition development is a big part of learning, because children learn financial matters through stages of development, from childhood, through adolescence, into adulthood. Children with higher cognition are more likely to pay more attention to commercials than those with lower cognition. Further, social environmental factors, such as cultural activities, through social interaction, may influence the cognitive development of children. In addition, children from different cultures undergo different ways of cognitive development, as various cultures employ different socialisation techniques.

Financial socialisation theories like consumer behaviour, consumer socialisation theory, financial socialisation theory, and the Family Financial Socialisation Model were discussed. These theories hold that children learn money management behaviours through interaction with socialisation agents such as parents, media, peers, and schools, with parents playing a prominent role. Further, children's learning can be purposive and non-purposive, where purposive learning is through direct financial teaching, while non-purposive learning is achieved through observation of parents' financial behaviours. Therefore, children emulate the behaviours of their parents and develop knowledge, skills, attitudes, and beliefs about finances

throughout childhood into adulthood. The Family Financial Socialisation Model was selected as the most suitable for the present study.

Financial literacy theories which were categorised as traditional finance theories and behavioural finance theories were discussed. Thus, five traditional finance theories, namely the efficient market hypothesis, expected utility, modern portfolio, permanent income hypothesis, and the life-cycle savings hypothesis, and three behavioural finance theories, namely bounded rationality, prospect theory, and theory of planned behaviour were discussed. The theory of planned behaviour was selected as the most appropriate theory to explain financial literacy in this study.

The next chapter provides a review of parenting, young adulthood, and parental financial socialisation.

## CHAPTER 3

### PARENTING, YOUNG ADULTHOOD, AND PARENTAL FINANCIAL SOCIALISATION: AN OVERVIEW AND EMPIRICAL EVIDENCE

#### 3.1 INTRODUCTION

Chapter 2 highlighted theories and models relevant to the study. This chapter provides an overview of parenting, young adulthood, and financial socialisation. Section 3.2 focuses on parenting, specifically the definition of *parent*, parental roles, parenting styles, and parenting in black African households. Section 3.3 provides an overview of young adulthood. Section 3.4 outlines the socialisation process by providing the definition of socialisation and theories of socialisation. Section 3.5 reviews financial socialisation through a focus on the origins of financial socialisation and financial socialisation theory. Section 3.6 deals with parental financial socialisation; it provides the definition of parental financial socialisation and discusses components of and factors that influence parental financial socialisation. Section 3.7 reviews earlier empirical studies on parental financial socialisation in both in Western countries and Africa, including South Africa. Lastly section 3.8 provides chapter summary.

#### 3.2 DEFINITION OF PARENTS

In South Africa, the definition of a parent is guided by the Constitution, where the Bill of Rights states that, for a person to be a parent, he or she must assume parental responsibilities and rights in terms of the Children's Act 38 of 2005. The Act defines a parent in relation to a child, and also includes the adoptive parent of a child, but excludes (a) the biological father of a child conceived through the rape of or incest with the child's mother; (b) any person who is biologically related to a child by reason only of being a gamete donor for purposes of artificial fertilisation; and (c) a parent whose parental responsibilities and rights in respect of a child have been terminated. Thus, the concept of parenthood can be broken down into three forms: biological parenthood, legal parenthood, and assuming parental responsibility (Louw, 2009). The present study adopted the definition of *parent* used in the Children's Act 38 of 2005. Table 3.3 the definitions for the purposes of the present study.

**Table 3.3: Parent definition for the study**

Parent	Definition
Biological parent	Biological mother or father
Co-parent	Individual who shares the responsibility of raising the child; includes divorced parents and people who have a child together but never married
Adoptive parent	Adoptive mother or father who was awarded custody of a child by a court through an adoption process
Stepparent	Stepfather or stepmother who is married to the child’s biological mother or father, but is not the child’s biological parent
Foster parent	A person who fosters a child by order of the Children’s Court, including an active member of an organisation operating a foster care scheme who has been assigned responsibility for the foster care of a child
Grandparent	The mother or father of one of the child’s biological parents
Guardian	An individual who is legally appointed by the Master of High Court or the Children’s Court to assume parental responsibilities
Caregiver	An individual, paid or not paid, who assumes parental responsibilities when the parents are away; includes family members or people from a social network, such as community members, family members, and siblings

Source: Author’s own compilation

### 3.3 PARENTING

Parenting entails creating moment-to-moment new, complex, rapidly changing, uncertain information associated with children. It is also expecting of yourself — and others expecting of you — to give care consistently, appropriately, and effectively, which requires that parents are highly motivated to succeed at many assignments (Lerner, 2015). Parenting is more than just feeding, teaching, and being emotionally available; it requires planning, organising, and executing, all of which consume mental and physical energy and time (Lerner, 2015). Modern views on parenting emphasise the importance of interaction between parent and child and the need for parents to engage with the child. This occurs in conjunction with heterogeneous cultural and social influences, often by more than one person (Mikeska, Harrison & Carlson, 2017).

Children also interact with peers, other adults and households, and the community, with parents playing a crucial role in managing and facilitating these interactions. Parenting involves meeting the needs of children — emotional, material, and

developmental, protecting them from harm, and providing a caring and nurturing environment. Parenting is about loving and connecting with one's children, monitoring them, and providing warmth, guidance, support, and protection (Woodcock, 2003).

According to Ward, Makusha, and Bray (2015), parenting is about modelling behaviour and setting boundaries for children. The authors, however, acknowledge that this may be a challenge when parenting under extreme conditions such as poverty, illness, and/or a lack of resources. Due to a lack of resources and high unemployment rates in certain areas, especially in rural areas and black communities, parents are forced to become economic migrants, leaving their children with substitute caregivers. This makes it difficult for the child's bearer to be the child's carer (Russell, 2008), and has a severe impact on the parent–child relationship.

Madziva and Zontini (2012) argue that the absence of parents in the formative and teenage years of children's lives may erode this relationship. It also contributes to these children's inability to form and maintain a sense of unity and common purpose and increases the likelihood of teenage delinquency. Thus, distance parenting has some negative effects on children, irrespective of the children's ages or level of family care and support. Parents, however, have the obligation to ensure their children's welfare — even if it is through a caregiver — despite distance, difficulties, and challenges. These are some of the reasons why parenting is considered a complicated task that requires multitasking and a high level of commitment from parents and all others who are involved in caring for children.

### **3.3.1 Parenting in black African households in South Africa**

Parenting in black African households is often not limited to the biological parents. It is often provided by a family member, oftentimes without following the legal adoption process. There are various reasons for this. Many parents, especially in rural and low-income areas in South Africa, migrate to Gauteng in search of employment and a better life. Bennett, Hosegood, Newell, and McGrath (2015) note that most parents who migrate do not take their children to live with them in their destination household; instead, they leave their children in the care of family members.

According to a StatsSA (2018) report, 25.8% of South African children were not living with their parents. The province with the highest incidence was Eastern Cape (EC)

(39.6%), followed by KwaZulu-Natal (KZN) (31.8%) and Limpopo (LP) (28.2%). These provinces also have a high rate of adults living in poverty, with LP at 67.5%, followed by EC (67.3%) and KZN (60.7%) (StatsSA, 2018). It is therefore not surprising that the majority of children not living with their parents are from these provinces; their parents migrated to other provinces. Moreover, these provinces are experiencing high rates of HIV/AIDS, leading to parents' premature demise, which forces their children to live with other family members or to be looked after by the eldest sibling. There is evidence of increasing child-headed households in South Africa (StatsSA, 2018). Table 3.4 provides the statistics for children living with their mother only, father only, both parents, and neither parent per province in 2004 and 2016.

**Table 3.4: Distribution of children aged 7–17 years according to type of households per province**

Province	2004					2016				
	Lives with mother only	Lives with father only	Lives with both parents	Lives with neither parent	Total	Lives with mother only	Lives with father only	Lives with both parents	Lives with neither parent	Total
	Number ('000)					Number ('000)				
WC	333	29	602	108	1 073	382	38	599	139	1 157
EC	629	61	489	515	1 694	615	44	323	644	1 626
NC	69	6	95	60	231	91	9	76	61	238
FS	181	19	239	159	598	198	16	179	136	529
KZN	943	109	781	652	2 486	1 009	108	567	783	2 467
NW	266	22	223	224	734	302	25	235	177	738
GP	587	64	984	249	1 884	672	80	1 073	310	2 135
MP	352	30	299	267	948	322	40	284	245	891
LP	660	31	373	400	1 465	553	37	338	365	1 292
<b>Total</b>	<b>4 021</b>	<b>372</b>	<b>4 084</b>	<b>2 635</b>	<b>11 113</b>	<b>4 144</b>	<b>397</b>	<b>3 674</b>	<b>2 860</b>	<b>11 075</b>
	Per cent					Per cent				
WC	31,1	2,7	56,1	10,1	100,0	33,0	3,3	51,8	12,0	100,0
EC	37,2	3,6	28,8	30,4	100,0	37,8	2,7	19,9	39,6	100,0
NC	30,1	2,8	41,2	26,0	100,0	38,3	3,8	32,1	25,8	100,0
FS	30,3	3,1	39,9	26,7	100,0	37,4	3,0	33,8	25,8	100,0
KZN	38,0	4,4	31,4	26,2	100,0	40,9	4,4	23,0	31,7	100,0
NW	36,2	3,0	30,4	30,5	100,0	40,9	3,3	31,8	24,0	100,0
GP	31,2	3,4	52,2	13,2	100,0	31,5	3,7	50,3	14,5	100,0
MP	37,1	3,2	31,6	28,2	100,0	36,2	4,5	31,8	27,5	100,0
LP	45,1	2,1	25,5	27,3	100,0	42,8	2,9	26,1	28,2	100,0
<b>Total</b>	<b>36,2</b>	<b>3,3</b>	<b>36,8</b>	<b>23,7</b>	<b>100,0</b>	<b>37,4</b>	<b>3,6</b>	<b>33,2</b>	<b>25,8</b>	<b>100,0</b>

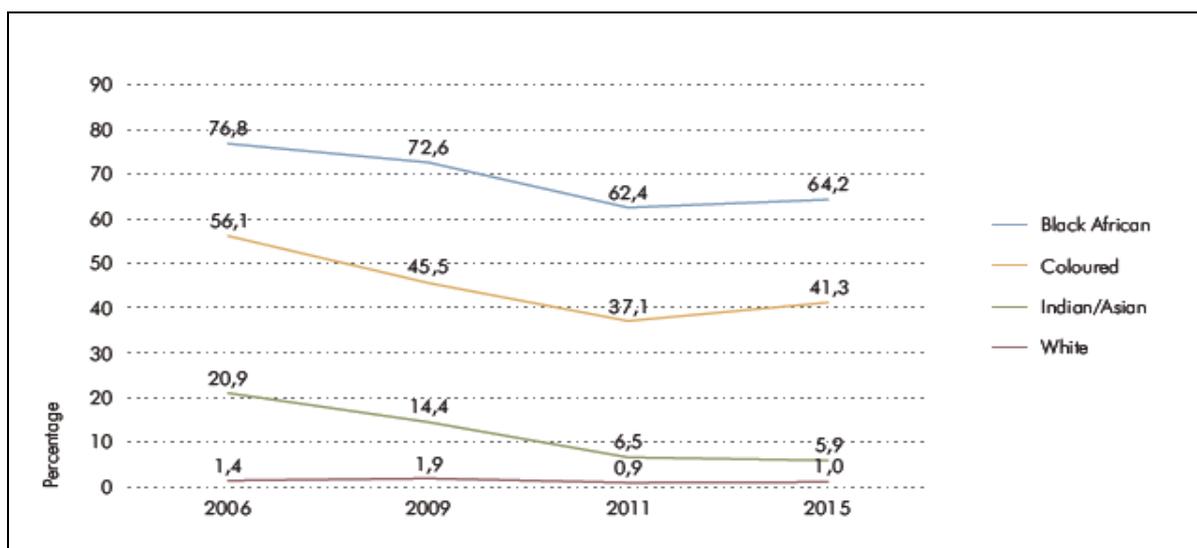
Source: StatsSA (2018)

As shown in Table 3.4, a high number of children were not living with parents or with only one parent, mainly in rural areas. Notably, mothers are still the ones responsible for raising their children. There was a slight increase in children living with only their father over this period, which indicates an increase in men's involvement in the day-

to-day care of their children. Although the number is still low, it is encouraging, because a father's involvement in nurturing and caring for children is as important as the mother's, particularly with regard to children's discipline.

Langa (2010) states that the absence of fathers from their children's lives has wide-ranging implications for their children's future relationships. There is evidence that most black African children live without their fathers, which affects their development and academic success, which then impact their ability to find employment. This situation also creates challenges for black African women in South Africa, including making parenting more difficult.

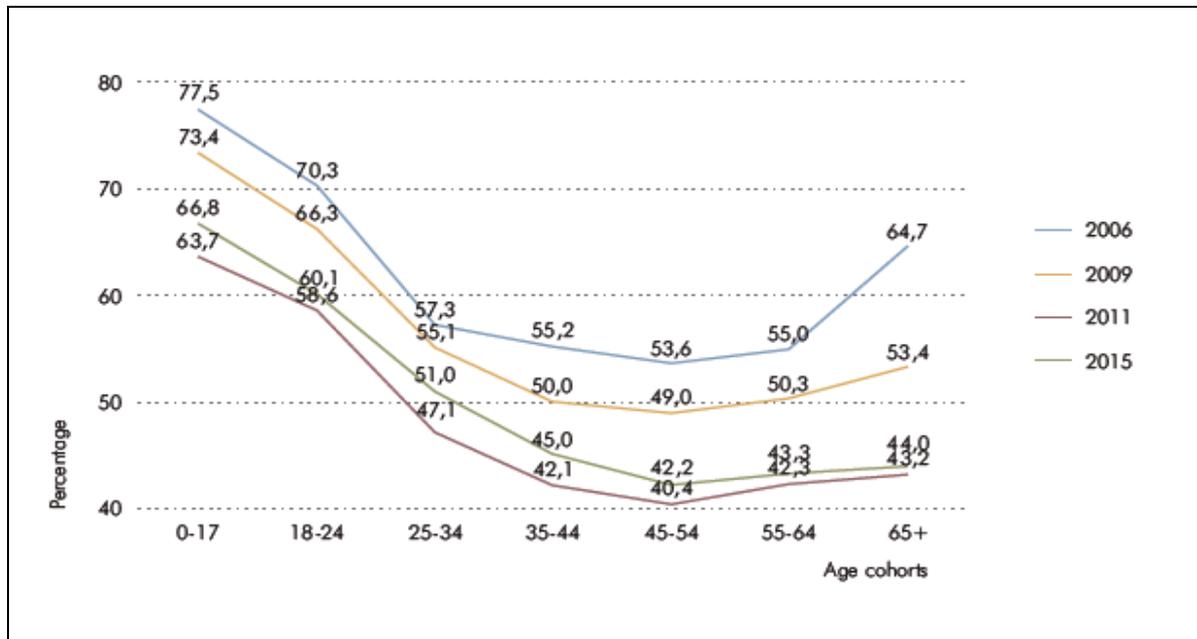
The challenges faced by black African parents in parenting are immense. These include dealing with and explaining the issue of racial discrimination to their children (Threlfall, 2018). Black African parents are disadvantaged economically because of injustices of the past, which, ultimately, their children inherited. Compared to other population groups, black Africans are severely affected by a high unemployment rate, poverty, inequalities, and financial hardship, which create a dependency on financial support (StatsSA, 2018). The Living Conditions Survey by StatsSA in 2014/2015 revealed that black Africans are living in poverty, with young black Africans severely affected. Figures 3.13 and 3.14 indicate poverty by population group and age respectively.



**Figure 3.13: Poverty by population group in South Africa (2006, 2009, 2011, & 2015)**

Source: StatsSA (2018)

As indicated in Figure 3.13, the poverty headcount for black Africans has been higher than that of other population groups since 2006. Although there was a steady decline towards 2011, the numbers again increased towards 2015. Figure 3.14 provides poverty figures by age.



**Figure 3.14: Poverty by age in South Africa (2006, 2009, 2011, & 2015)**

Source: StatsSA (2018)

Figure 3.14 provides an overview of the different levels of poverty amongst various age cohorts. Poverty is highest amongst people aged 0 to 34 years. This contributes to young black African adults having little exposure to financial matters and knowledge with which to become financially independent. Young black African adults lack financial knowledge and are not fully equipped to deal with financial challenges and responsibilities in their transition to adulthood (Hudson et al., 2017). This puts an additional burden on their parents, as they have to support their children financially even in young adulthood. Black African parents are sometimes faced with having to assist their children to start a family and to support their children's family because the children are unemployed and impoverished (Hudson et al., 2017).

Danziger and Haveman (2001) argued that poor and uneducated parents face unique social circumstances that affect their parenting practices. Poor and uneducated black African parents encounter an even greater number of chronic stressors and negative life events than other population groups. They suffer work- and income instability, the

inability to pay bills, poor housing, and neighbourhood disorganisation, and their basic needs of everyday life are not met. These stressful exposures affect how black African parents interact with their children (Conger & Donnellan, 2007).

In black African households, gender seems to play a role in how parents communicate with their children and allocate household chores and duties. Girls are often given kitchen duties, while boys are assigned garden- and general duties. Thus, these children may be socialised differently, which would impact their capabilities and knowledge as adults. Male children are highly regarded and are more likely than female children to be involved in family decisions at an early age. This may be due to the belief that, if the male parent dies, the male child must take over the responsibility of looking after the family (Conger & Donnellan, 2007).

### **3.4 PARENTAL ROLES**

Parents play an important role in a child's upbringing. This role starts with parents having to nurture and protect their unborn throughout pregnancy until birth (Lerner, 2015). Once the child is born, a new parental role is created; the parents must learn how to raise the newborn. This role becomes increasingly complex and can be especially difficult if the child is the firstborn; there is often conflict in family, and the mother may suffer depression (Barrent & Fleming, 2011).

In parenting, parents must adjust, find coping mechanisms, and employ strategies that best suit their situation. Parents are tasked with preparing their children for the physical, economic, and psychological situations that are characteristic of the environment and culture in which they must survive (Lerner, 2015). There are strong cultural expectations in all societies of parents to be the primary socialisers of their children, because parents are the first people children get to know in their lives. Parents are expected to be child centred. Aside from the wide range of activities parents are expected to engage in with their children, parents are expected to — through positive feedback, openness, negotiation, listening, and emotional closeness — make their children feel valued (Lerner, 2015).

Parents are expected to take care of the biological needs of their children, to provide an optimal environment, to protect, teach, and educate, provide guidance and direction, and to assist and help them when necessary. Parents must support and

motivate their children, develop their social and emotional skills, and discipline them early in childhood, because it is a crucial stage in children's formation of personality attributes, social skills, cognitions, and cultural values (Bornstein, 2013). In addition, the early parent-child relationship impacts the child's security, the child's development of the ability to cope with distress, and the child's social competence (Ainsworth, Blehar, Walters & Wall, 1978). Technology now poses another challenge; parents must ensure that their children are educated in technology, and they must monitor their children's technological activities, such as the use of cell phones, the internet, and social media (Bornstein, 2013).

Parents are also expected to teach their children about money matters at an early age, so that they develop financial skills and are able to become financially independent during adulthood (Vieira, 2012). Children may develop financial habits at early age that they maintain throughout their lives, habits that may be difficult to break (Van Campenhout, 2015). Parents are at the centre of child development, and thus play an important role in their children's acquisition of financial knowledge.

Black African parents employ different parenting styles and practices compared to other races; they rely on and are guided by cultural norms, values, customs, and beliefs regarding parenting (Richman & Mandara, 2013). For example, the notion that parents may not discuss topics like sex, death, and financial matters with their children is particularly prevalent in black African households that strictly uphold their cultural identity. Black African parents are more collectivistic, but not less individualistic, in their approach to childrearing, compared to other races (Richman & Mandara, 2013).

Black Africans believe that it takes a whole village to raise a child. Thus, they believe in upholding societal norms that will later clearly distinguish children by their behaviour; children are easily identified as belonging to a certain community or village based on their behaviour. Although practising cultural values, societal norms, and beliefs is diminishing amongst black Africans in South Africa, there is still a substantial number who believe in and practise cultural beliefs in their parenting, especially in rural and low-income areas (Richman & Mandara, 2013).

### **3.5 YOUNG ADULTHOOD**

Historically, the path to adulthood has been defined as a set of crucial events, such as completing school, starting a full-time job, leaving one's parental home, marrying, and becoming a parent. However, young adults are challenging the sequence of the transition to adulthood (Shim et al., 2010). Young adults now consider financial independence from their parents, autonomy in their decision-making, and being responsible for their own lives as the prevailing indicators of adulthood. Young adulthood is a newly recognised stage of development, falling between adolescence and adulthood, and it is between the age of 18 to 35, and is considered the most dynamic and stressful period of a person's life. This is also a period in which parents and children form a new relationship (Arnett, 2016).

Young adults are no longer adolescents, but they have not yet successfully transitioned to adulthood, and today, financial transition and independence take much longer than before (LeBaron, Hill, Rosa & Marks, 2018). Financial transition differs between young adults, as opportunities for financial independence are not distributed equally. For many, without adequate social and human capital, the path to self-sufficiency is longer and more frustrating (Shim et al., 2010). Young adults face financial challenges that require financial knowledge and skills, the right values and attitude, preparedness, and an adequate income in order to become self-sufficient (LeBaron et al., 2018). Financial challenges are consistently reported as the most prevalent source of stress amongst young adults (Arnett, 2016).

Young adulthood is a crucial phase in human development. It is during this phase that young people start living independently of parents, gain employment, enter into contractual obligations, get their first credit card, or take out a student loan (Xiao, Chatterjee & Kim, 2014). These new opportunities allow young adults to develop the knowledge and skills that underlie conscious financial decision-making, along with the unconscious financial habits and heuristics that will drive their everyday financial behaviours in adulthood (Xiao et al., 2014).

During young adulthood, individuals must make several important decisions, including what type of tertiary education and career they want to pursue and how to finance it. They are faced with decisions regarding career choice, financial decisions, job benefits, insurance, health care, and retirement. It is also during this early stage of

adult life that individuals normally form households with others and, in the process, purchase a wide variety of goods and services, some which can be quite expensive and require loans and financing (Breitbach & Walstad, 2016). Additionally, planning what part of household income to allocate to consumption and savings is a major challenge for most households in the early years of members' careers. Moreover, during these formative years of financial responsibility, young adults are making financial decisions that affect, not only their current, but also their future economic well-being. These financial decisions can be very costly in both the short and long run (Breitbach & Walstad, 2016).

There is evidence that young adults are struggling financially and are unable to manage their finances (Xiao et al., 2014). Notwithstanding that financial socialisation occurs throughout the life span, young adulthood is a very important period with regard to financial attitude, behavioural practices and outcomes, and developing financial independence (Shim et al., 2010). The financial habits, both positive and negative, that form during the transition to adulthood are likely to persist throughout adulthood. Moreover, the financial knowledge, attitudes, and behaviours acquired during this period and subsequently — the financial independence that young adults establish — may affect their lives in profound ways, not only in the realm of financial and economic well-being, but also with regard to their ongoing relations with family, friends, and associates. Therefore, financial socialisation at a young age is critical, because young adults put all their previous financial socialisation into practice (Schweichler, 2013).

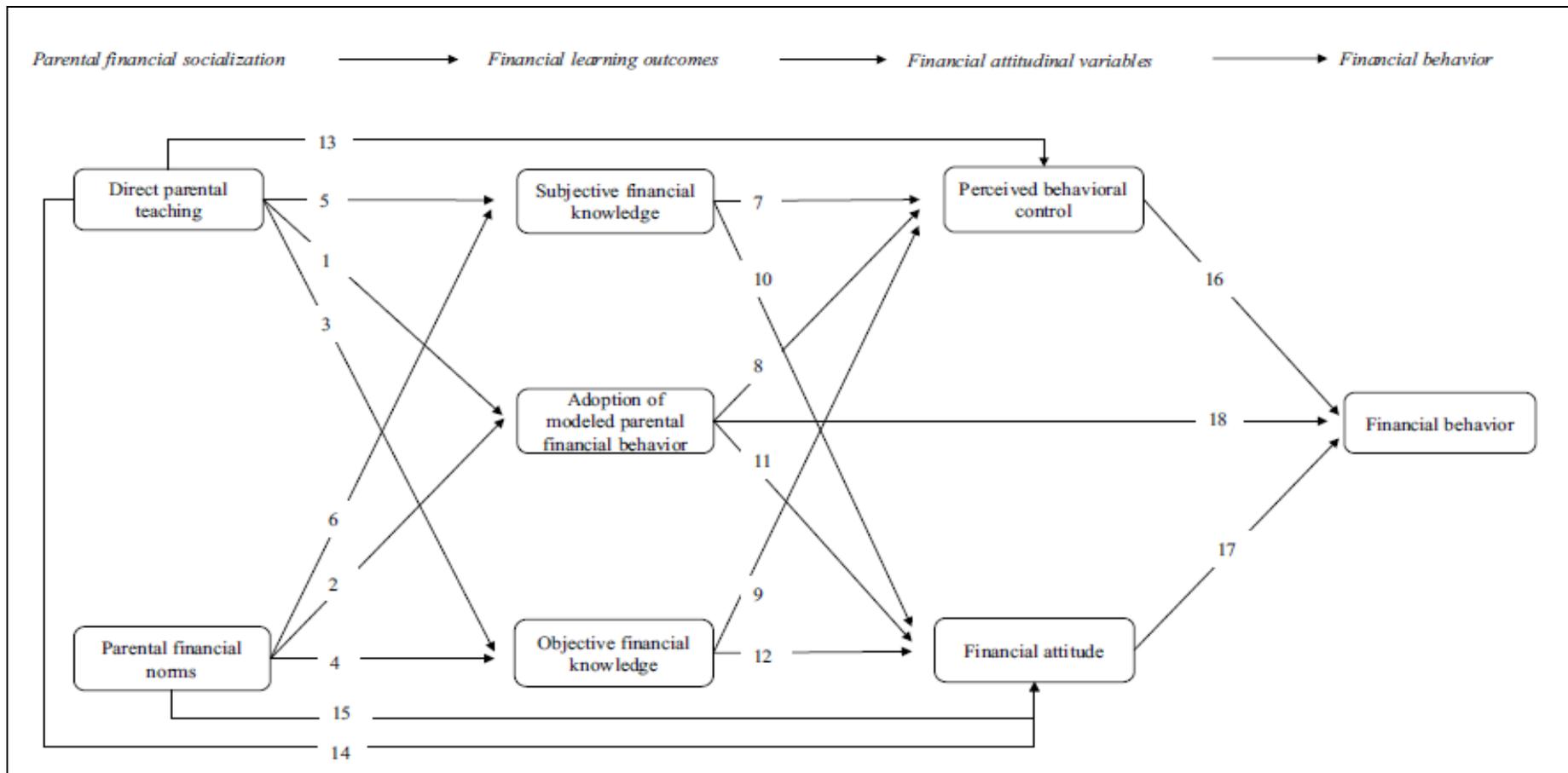
### **3.6 PARENTAL FINANCIAL SOCIALISATION**

The role of parents in the formation of their children's financial knowledge and skills is most often studied as a financial socialisation process (Serido & Deenanath, 2016). There is limited knowledge on what actually happens with regard to their financial development when people are in young adulthood and about to transition into adulthood. The present study focussed on parental socialisation of children from childhood, through adolescents, into young adulthood. Therefore, young adulthood was the age at which parental financial socialisation was investigated, but the socialisation was assessed from childhood, as it is argued that parental socialisation starts at a very early age. Thus, it was relevant to investigate whether parental financial socialisation has any influence on young black African adults' level of financial literacy.

The role of parents compared to other socialisation agents, is pivotal in the development of financial literacy and responsible financial behaviour in children (Jorgensen & Salva, 2010). The parental role-model influence on the consumer behaviour of their children is supported in literature (Wiese & Kruger, 2016).

Grusec and Davidov (2007) indicate the reasons why parents are primary in children's socialisation. Firstly, parents are biologically prepared, not only to produce offspring, but to attend to the multifaceted demands of their upbringing. Secondly, parents who are primed to protect and nurture their children find opportunities to play into their human need for interrelatedness. Thirdly, there are strong cultural expectations in all societies of parents to be the primary socialisers of their children. Fourthly, parents typically live in close proximity to their children, and are incentivised to help establish prosocial behaviour in their children. Lastly, parents control the economic and material resources that children need to grow and develop. However, even with all these reasons advanced in empirical research suggesting that parental financial socialisation positively predicts the development of financial capability, it appears that, even in developed countries that spearheaded research in financial socialisation, parental financial socialisation has been given little attention, and no model connects parental financial socialisation to financial learning outcomes. Only recently did Zhu (2018) adapt Shim et al.'s (2009) Conceptual Model of Financial Well-being and Gudmunson and Danes's (2011) Family Financial Socialisation Model to propose the Parental Financial Socialisation Model, which was subsequently modified and extended by Zhu and Chou (2018), guided by consumer socialisation theory (Moshis, 1987) and the theory of planned behaviour (Ajzen, 1991).

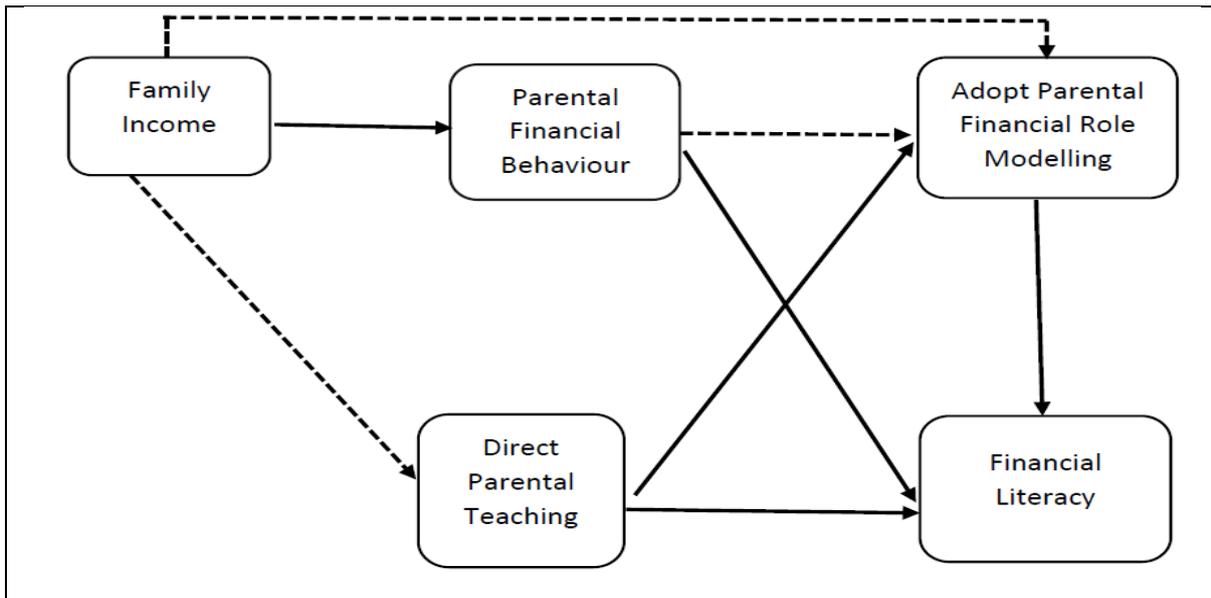
Zhu (2018) included parental financial norms at the stage of parental financial socialisation and evaluated how parental financial norms influence financial attitudinal variables, which in turn, affect healthy financial behaviour. The study found that both direct parental teaching and parental financial norms are positively linked to the adoption of modelled parental financial behaviour and objective financial knowledge. Figure 3.15 shows the Conceptual Framework of Parental Financial Socialisation of Zhu (2018).



**Figure 3.15: Conceptual Framework of Parental Financial Socialisation**

Source: Zhu (2018)

Figure 3.15 indicates that parental financial socialisation through direct parental teaching and parental financial norms influences children’s financial learning outcomes, which, in turn, predict children’s financial attitudinal variables and, ultimately, their financial behaviour. From this, Zhu and Chou (2018) introduced a modified version of the Parental Financial Socialisation Model to explain the link between family income and financial literacy of adolescents, shown in Figure 3.16.



**Figure 3.16: Model of Parental Financial Socialisation**

Source: Zhu & Chou (2018)

As indicated in Figure 3.16, Zhu and Chou (2018) hypothesised that, first, family income influences the financial literacy of adolescents through parental financial behaviour and direct parental teaching. Second, family income influences adolescents’ financial literacy through direct parental teaching and parental financial behaviour, mediated by adopted parental financial role modelling. The results indicated, that, first, family income influences the financial literacy of adolescents through parental financial behaviour. Second, direct parental teaching was found to be negatively correlated with financial literacy. Third, family income was found to have no effect on direct parental teaching. Finally, family income was not found to be significantly associated with the adoption of parental financial role modelling.

From Zhu’s (2018) and Zhu and Chou’s (2018) models of parental financial socialisation, the following emerged. Zhu (2018) used only the variables *direct parental*

*teaching* and *parental financial norms* to explain parental financial socialisation through subjective and objective financial knowledge, as well as the effect of adoption of modelled parental financial behaviour on financial capability of adolescent students. Financial capability was measured through financial behaviour. Zhu and Chou (2018) used family income to explain the effect of parental financial socialisation, through direct parental teaching and parental financial behaviour, on adoption of financial role modelling, which was found to, in turn, predict financial literacy of adolescent students. Financial literacy was measured by constructing a financial knowledge index.

In the current study the effect of parental financial socialisation on adolescents' financial literacy was measured through parental financial teaching, parental financial discussions, parental financial monitoring, and financial role modelling. Financial literacy was measured on four dimensions: financial attitude, financial behaviour, financial knowledge, and financial decision-making. As noted earlier, the focus was on young adults, not only students, as was done in previous studies.

The components of parental financial socialisation — parental financial teaching, parental financial discussions, parental financial monitoring, and financial role modelling — are discussed in detail in the next section.

### **3.7 COMPONENTS OF PARENTAL FINANCIAL SOCIALISATION**

The components of parental financial socialisation, namely direct parental teaching, role modelling, financial communication, and monitoring are associated with better financial literacy amongst young adults. This is supported by the notion that direct teaching through planned instruction, reinforcement through reward or punishment, encouragement to practise and participate, and adopting parental role modelling by observing and imitating the financial roles performed by parents can make positive contributions to the financial learning experience of youths (Bandura, 1977; Danes, 1994). The next sections discuss each component of parental financial socialisation.

#### **3.7.1 Parental Financial Teaching**

Parental financial teaching, an example of purposive financial socialisation, involves the explicit transfer of financial knowledge and skills from parents to children (Rea et al., 2019). Parents socialise their children in financial affairs by directly teaching

objective financial knowledge and by consciously and subconsciously sharing their financial norms and expectations. Parents also actively influence their children to make better decisions and learn about finance by trying to instil good financial behaviour in their children (Grohmann, Kouwenberg & Menkhoff, 2015). Parental financial teaching has an influence on financial literacy (Antoni & Saayman, 2021). Direct financial teaching relates to how parents teach their children about financial matters throughout childhood, until adulthood (Moschis, 1985). Shim et al. (2010) assert that explicit financial teaching is linked with children's financial learning and future behaviours.

Buccioli and Veronesi (2014) found that adults whose parents taught them to save are more likely to save. Shim et al. (2009) assert that parental financial teaching has a stronger influence on the financial knowledge of first-year college students than financial education in high school and early experience with money. Webley and Nyhus (2013) found that parental financial teaching, such as encouraging children to save and teaching them to budget, has a positive effect on future orientation and saving rates of young adults aged of 18 to 32.

Young people spend a considerable amount of time with their parents; therefore, direct parental financial teaching could occur in a very natural way, particularly when adolescents participate in financial affairs by obtaining and handling financial resources within the family environment (Gudmunson & Danes, 2011). Moreover, parents can share their own knowledge, financial choices, and financial norms with their adolescent children while teaching them. This enables young people to accumulate objective financial knowledge and increases the likelihood that they will emulate their parents' financial behaviours. Parental financial socialisation through a mechanism of direct financial teaching could influence adolescents' financial behaviour and financial outcomes. Thus, parents should intentionally teach financial knowledge, and convey clear and positive financial norms to their adolescent children (Zhu, 2018).

### **3.7.2 Parental Financial Discussions**

Parental financial discussions are sometimes referred to as *parental financial communication* in financial socialisation literature; however, the two concepts are not the same. The present study contributes to financial socialisation literature by showing

that parental financial discussions and communications differ fundamentally. This is explained in detail in Chapter 7. During exploratory factor analysis, measures that were originally developed to measure financial discussions were split into two, and a new factor, named *financial communication* emerged. The main difference between parental financial discussions and parental financial communication is that, in parental financial discussions, children are involved in discussions about family financial matters and also in general financial decisions. In parental financial communication, children are informed about family financial matters. Parental financial communication is discussed in Section 3.7.3.

Parental financial discussion is a process whereby parents openly discuss financial matters with their children and allow input from their children (Kim & Torquati, 2019). This is not a one-way process; children are not only considered receivers of financial information, but they can also advise their parents, and the parents involve the children in major financial decisions. According to Grinstein-Weiss, Spader, Yeo, Taylor, and Books-Freeze (2011), young adults whose parents engaged them in financial discussions when they were children tend to have less credit card debt, less loan delinquency, and a higher household net worth and rate of investing. Norvilitis and MacLean (2010) found that children of parents who avoided financial topics during childhood are associated with higher credit card use during young adulthood. Solheim, Zuiker, and Levchenko (2011) found that parental financial discussions during childhood are an important socialisation mechanism of saving and money management for young adults. This is supported by Shim et al. (2009), who found a positive correlation of financial discussions with parents around budgeting and savings with greater financial knowledge of students.

Financial discussions can happen spontaneously, without any plan in place; it does not have to be something that has to be done at a certain place and time, but parents may have to be creative so that children can understand. For example, LeBaron et al. (2018) reported that some parents discuss financial matters with their children using games and visual aids. One respondent indicated: 'We were sometimes sitting around the table with Monopoly money and putting the money out on a table and saying, "This month, for utilities, this is what we pay, this is what it costs for the house payment, this is what we have got, and this is how much is left."' Respondents equated financial

discussions to forums for financial education, with discussions shaping children's financial knowledge, attitudes, and behaviours.

Serido and Deenanath (2016) assert that financial discussions are primarily explicit or purposive, where parents hold deliberate decisions on financial matters with their children and engage them so that they can feel free to provide input into household financial matters. In this way, children learn and start to understand the complexity of money management. Webley and Nyhus (2006) assert that explicit financial discussions with children have a direct impact on the children's future financial behaviour. The authors note that there is a link between parental encouragement of a child to save with a bank and adult saving behaviour. Financial discussions can shape children's spending behaviours and attitudes by providing parents with an opportunity to engage in direct discussions about purchasing decisions, money, credit, and related topics (Allen, 2008; Agnew, 2018).

### **3.7.3 Parental Financial Communication**

Parental financial communication is a tool for educating children about financial issues such as saving, budgeting, investing, consumer skills, avoiding financial problems, and building a strong foundation for financial well-being (Allen, 2008; Kim & Torquati, 2019). Parental financial communication involves speaking to children about finances without necessarily requiring their inputs. Children are therefore not involved in family financial matters — they are only informed. An example is parents explaining the family's spending plan to their children so that they are not surprised if certain items are not considered in the household spending plan or not purchased at all. Communication includes explaining the use of credit and the importance of saving. Thus, during communication, children are not expected to provide any inputs, but rather to take note, so that they know what is happening in the household finances. Parental financial communication is more likely to be employed by parents who follow an authoritarian parenting style, where children are mainly told what to do and where minimal discussions about family issues take place (Grusec & Davidov, 2007).

Financial communication also involves other factors, such as family processes, conversational environments, and even individuals' characteristics (Allen, 2008). Jorgensen et al. (2017) found that financial communication plays a mediating role between emerging adults' attachment to their parents and their financial behaviours.

College students tend to have more sound credit card spending behaviour when their parents explained the use of credit cards to them. A lack of communication between parents and their children about financial matters was found to be associated with increased debt over time (Norvilitis & MacLean, 2010). A study of children aged eight to 18 years reported that parental communication about charitable donations is positively associated with children's saving for their future education and the tendency to donate to charities (Kim, LaTailade & Kim, 2011).

### **3.7.4 Parental Financial Modelling**

Another important concept, and perhaps the most prevalent method of parental financial socialisation, is financial modelling. Financial modelling can occur through experimental learning and parental financial behaviour (Kim et al., 2011).

#### **3.7.4.1 *Experimental learning***

Parental financial modelling through experimental learning occurs when parents involve their children in financial situations in order to provide them with real financial experience. This can be done by opening bank accounts in their names to give them some responsibility in managing their own money and going shopping with their children. For example, a respondent from LeBaron et al.'s (2018) study said: 'My parents took me to the bank for the first time to help my siblings and I to set up a bank account. They put \$200 in each of our accounts to jumpstart us and to get us excited about saving. Further, my parents did make a point to physically take us to the bank when we were ready to deposit our money instead of just taking it and doing it for us.' Holding savings accounts provides an opportunity for children to develop financial socialisation (Agnew, 2018).

#### **3.7.4.2 *Parental financial behaviour modelling***

Parental financial behaviour modelling occurs when children view their parents as role models and do what their parents did when they reach adulthood. When parents, for example, pay bills or put money aside for emergencies, they model the financial norms, attitudes, and behaviours that form the foundation of their children's financial values (Buccioli & Veronesi, 2014). By setting a good example and being a positive role model, parents can influence their children's monetary habits while they are at an

impressionable age (LeBaron, Runyan, Jorgensen, Marks, Li & Hill, 2019). Parents are the first models observed by children, and they imitate their parents' behaviour. It is expected that, when children observe, for example, their parents' spending behaviour, they will copy it. However, it is also possible that children will show contrarian behaviour, as some children turn away from their parents (LeBaron et al., 2019).

Webley and Nyhus (2006) posit that, as role models, parents influence their children's future saving- and borrowing behaviour. When parents save, their children know that saving is a good thing (Buccioli & Veronesi, 2014). Hibbert, Beutler, and Todd (2004) assessed the impact of modelling on financial behaviour and found that students who were raised in a financially prudent household, where parents saved and paid their bills on time, self-reported fewer negative financial behaviours such as misusing credit cards and making unaffordable purchases. Therefore, observation of parents' financial behaviours or modelling is influential in developing financial behaviours in children that are sustained into the future (Garrison & Gutter, 2010).

LeBaron et al. (2018) found that emerging adults learn their financial attitude from their parents. For example, one respondent in their study said, 'My parents have always been really good at saving, and that has rubbed off on me.' Another respondent recognised the influence her parents had had on her financial attitude: 'Even though my parents have a lot of money, they do not like spending it on unnecessary things, which I appreciate. I definitely learned by their example that we do not need everything that we can afford.'

Parental financial modelling is a powerful socialising process that promotes an intergenerational transfer of financial knowledge, skills, and values, and even very young children learn about finances in this way (Serido & Deenanath, 2016).

### **3.7.5 Parental Financial Monitoring**

Parental monitoring of children's use of money is a mechanism by which parents help children internalise and familiarise themselves with parents' rules and expectations about financial practices. Children learn to develop self-control and delayed gratification, which are important skills with regard to responsible spending, saving, and long-term financial planning (Kim et al., 2011). According to Kim and Chatterjee

(2013), owning a bank account and parental monitoring of spending during childhood predict greater assets in emerging adulthood. Parental financial monitoring could influence children's habit formation, because habits are formed at a young age. Parents therefore have a high impact on children's habit formation (Batty, Collins & Odders-White, 2015). Parents have the ability to influence their children by monitoring their spending patterns and pushing their behaviour in certain directions to prevent unwanted habits from being formed (Webley & Nyhus, 2006).

Parental financial monitoring can foster financial independence in children earlier than would have been the case without monitoring. This means that children are not entirely dependent on their parents to make financial decisions, but they know they should be responsible, because they are being monitored. One method of creating financial independence is giving children an allowance, which makes them responsible for managing their own money. This teaches them to make their own decisions, which leads to experience in making financial decisions (Webley & Nyhus, 2013).

### **3.8 FACTORS THAT INFLUENCE PARENTAL FINANCIAL SOCIALISATION**

Factors that may influence parental financial socialisation of children are subdivided into two main categories in literature: individual factors and social structural factors. Individual factors are age and gender of the child, which, in turn, play a role in the child's attributes, cognition, and personality (Hayta, 2008). Social structural factors are mainly family characteristics such as culture, ethnicity, and parents' SES, with the latter referring to income, level of education, and occupation (Bosch, 2013).

#### **3.8.1 Individual Factors**

Individual factors in socialisation relate to the socialiser (the parent) and the socialised (the child). While financial socialisation is mainly focused on children's characteristics, factors related to the parents are not overlooked. Hayta (2008) argued that individual factors include elements that are related to the past experiences of the individual and arise from the child's surroundings. Age and gender are considered the most influential factors. These factors are discussed in detail below.

### **3.8.1.1 Age**

Age, as an indication of development and change, is the best determinant of the consumer behaviours of an individual. Developmental theorists argue that children's consumer behaviours are aligned to their stage of development (LeBaron et al., 2019). This means that children are not capable of processing information and learning certain behaviours until they have reached a certain developmental stage. The cognitive development of every individual is age- and stage-bound, and all children go through these stages of cognition in a fixed order (Piaget, 1952). The four stages leading to understanding of their surrounding reality and the ability to accommodate it are: sensomotoric intelligence (0–2 years), pre-operative intelligence (2–6 years) and specific operations (6–12 years), and formal operations (12–15 years). Thus, at a certain age, children will struggle with some financial information, and parents must be aware of it and be prepared to navigate this hurdle. Thus, parents must introduce relevant financial information at the right time (Iqbal, 2015). Vygotsky (1978) argued that children should also be helped to transition to the next stage, so that financial socialisation can occur smoothly.

Other researchers, such as John (1999) and Valkenburg and Cantor (2001), proposed different stages of development. John (1999) argued that consumer socialisation occurs in the context of social and cognitive development and proposed the following stages of consumer socialisation: the perceptual stage (3–7 years), the analytical stage (7–11 years), and the reflective stage (11–16 years). Table 3.5 provides more detail on these stages.

**Table 3.5: Children’s consumer socialisation stages**

Characteristics	Perceptual stage, 3–7 years	Analytical stage, 7–11 years	Reflective stage, 11–16 years
Knowledge structures:			
Orientation	Concrete	Abstract	Abstract
Focus	Perceptual features	Functional/underlying features	Functional/underlying Features
Complexity	Unidimensional	Two or more dimensions	Multidimensional
	Simple	Contingent (“if-then”)	Contingent (“if-then”)
Perspective	Egocentric (own perspective)	Dual perspectives (own + others)	Dual perspectives in social context
Decision-making and influence strategies:			
Orientation	Expedient	Thoughtful	Strategic
Focus	Perceptual features	Functional/underlying features	Functional/underlying features
	Salient features	Relevant features	Relevant features
Complexity	Single attributes	Two or more attributes	Multiple attributes
	Limited repertoire of strategies	Expanded repertoire of strategies	Complete repertoire of strategies
Adaptivity	Emerging	Moderate	Fully developed
Perspective	Egocentric	Dual perspectives	Dual perspectives in social context

Source: John (1999)

John’s (1999) children’s consumer socialisation stages indicates the importance of a child’s age in understanding consumer information by indicating the complex processes at play at the different stages. The same model can be used to explain financial socialisation stages.

Valkenburg and Cantor’s (2001) Descriptive Model of Children’s Development of Consumer Behaviour posits that behaviour develops in four phases that lead to changes in children’s needs and wants, thoughts, social perspective, and dependence on their parents. Infants and toddlers (aged 0–2 years) firmly express their food preferences. Pre-schoolers (aged 2–5 years) are demanding and cannot keep their minds off tempting products for long, even when parents try to distract them. Children in early elementary school (age 5–8 years) undergo important social and cognitive developmental changes and become capable of abstract and contingent thought. Later in elementary school (aged 8–12 years), children’s eye for detail and quality develops, together with their ability to critically evaluate and compare products and

information. Thus, cognitive abilities continue to evolve with age, with children becoming increasingly critical regarding product offerings (Valkenburg & Cantor, 2001). Romo (2011) found that parents talk to older children about money — and about a wider variety of financial matters, rather than to younger children.

Sohn, Joo, Grable, Lee, and Kim (2012) assert that parents seem to have a greater influence on young children, and that, as children grow older, parents' financial socialisation of their children seems to decrease as children gain access to other socialisation agents. However, it has been found that parental financial socialisation is prevalent even in young adulthood, when children are no longer living with their parents (Minahan & Huddleston, 2010).

### **3.8.1.2 Gender**

Studies in financial literacy have reported disparities in the level of financial literacy of men and women, with men having been found to have a higher level of financial literacy than women (Lusardi, 2015). The question is whether financial socialisation has played a role in this disparity. However, other studies have indicated that mothers are the most influential consumer socialisation agents in shaping the financial attitudes of their children (Minahan & Huddleston, 2010). Neeley (2005) found that mothers play an active role in financially socialising their daughters during consumption-related experiences, and that this relationship continues even after the daughters are no longer living with their mothers. Allen (2008) also found that female children are more likely to receive consumer orientation from their parents, although Allen (2008) did not indicate which parent was responsible for most of the orientation.

Agnew (2015) highlights another important issue in gender financial socialisation, namely the aspect of culture, and asserts that male children in households are treated differently to female children. Male children receive more financial socialisation, they are more involved in family financial decision-making, and their opinions receive consideration when complex financial decisions are made. For example, when parents want to buy a new car or house, they tend to ask the male children for advice. Even if female children offer unsolicited advice, it is not taken seriously. Female children are mostly involved in compiling grocery lists and shopping for household goods. Ameer and Khan (2020) argue that male adults have received more socialisation

opportunities through family, friends, and the community, compared to female adults, which is why they are more likely to have higher financial literacy and confidence.

From the above, it seems that the only explanation for the disparity in financial literacy between men and women is that mothers teach their daughters consumption decisions through consumer socialisation, and not broader financial behaviour and financial decision-making as part of financial socialisation. Female and male children seem to experience different types of financial socialisation in the home while growing up, leading to different financial identities, attitudes, knowledge, and behaviours as young adults (Agnew et al., 2018). However, these disparities require further investigation, which is why the present study explored the issue of gender in financial socialisation.

### **3.8.2 Social Structural Factors**

Social structural factors are those factors that are not under the direct control of individuals in financial socialisation, namely parental SES, ethnicity, and culture. This is the social setting within which learning takes place.

#### **3.8.2.1 Parental Socio-economic Status**

The SES of parents is considered an important factor in financial socialisation, as it affects the children's relationship with their parents and the children's influence on family decision-making (Moschis & Churchill, 1978). Research suggests that parents' SES may affect three primary methods of financial socialisation, namely modelling, discussions, and experimental learning (Serido, LeBaron, Li, Parrot & Shim, 2020). The prominent SES factors noted in literature are parents' income, education level, and occupation.

Ekstrom, Tansuhaj and Foxman (1987) posited that parents enjoying a high SES may lead to reciprocal financial socialisation, because these parents are more receptive to their children's opinions, and the children therefore have a greater influence on the family's financial decision-making. These children also have more opportunities for economic consumption (Ekstrom, Tansuhaj & Foxman, 1987).

Arikan (1991) posited that parents with a high income may be inclined towards luxury consumption motivated by showing off to secure a higher status in the community. Such parents spend their surplus income instead of saving it. This behaviour is then

observed by their children and may manifest in the same behaviours by the children (Arikan, 1991). However, Furnham (1999) found that saving rates are higher amongst children with parents with a higher income. Serido et al. (2020) found a positive relationship between a high parental SES and positive financial practices in childhood and young adulthood. Parents with a higher SES may be more proactive and confident in teaching their children about finances (Serido et al., 2020).

Gudmunson and Danes (2011) assert that income, education level, and occupation underpin parents' ability to foster desirable financial practices in their children, which could lead to better financial outcomes in adulthood. Jorgensen and Salva (2010) found that parents with a higher educational attainment are the primary socialisation agents for college students. The authors note that this may be due to these parents being more likely to communicate with their children and allow them to express their opinions. Serido, Shim, Mishra, and Tang (2010) argue that a combination of parental income and education plays an important role in parent–child financial interactions, which then impact their development of financial coping behaviours. Parents with college and graduate degrees, high-status occupations (i.e., professionals), and financial wealth can provide more human, social, and financial resources for the development of the child, and are thus better able to foster positive financial practices. These parents are also in a better position to enhance young adult children's asset acquisition through parental access to financial institutions (Kim & Chatterjee, 2013).

Kim and Chatterjee (2013) note that financial problems can have a tremendous impact on the emotions, behaviours, and beliefs of parents, which could influence their socialisation skills and strategies negatively, and also detrimentally affect their financial socialisation practices. According to Sherraden (2013), it would be extremely difficult for parents who lack financial knowledge and expertise to foster positive financial behaviours in their children. Sherraden (2013) adds that parents with a low income are also less likely to socialise their children financially. Thus, children from low-income homes have less experience with money and could be less aware of the range of consumer goods. However, Ward (1974) argued that children from low-income homes are more likely to be skilled consumers, because they have had to learn disciplined use of scarce resources.

From the above conflicting views, it is clear that the influence of parents' SES on the financial socialisation of their children requires further examination. Parents' SES was therefore included in the present study.

### **3.8.2.2 Culture**

Bartels (1967) argued that cultural differences are evident in laws, respect for individuality, the nature of power and authority, rights to property, the concept of deity, the relationship between individual and the state, national identity and -loyalty, and values and customs. Hofstede (1980) defined culture as a collective programming of the mind that distinguishes one group from another. Jones (2007) deconstructed Hofstede's definition of culture, and posited that programming is an important component. Culture is not something that is easily acquired; it is a slow process of growing into a society. Culture involves learning values (dominant beliefs and attitudes), partaking of rituals (collective activities), modelling heroes (role models), and understanding symbols (myths, legends, dress, jargon, and lingo) (Jones, 2007).

Hofstede (1980) posited that differences in socialisation manifest in the following dimensions: power distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity. These dimensions are discussed below.

- **Power distance** is the extent to which the less powerful members of a society accept that power is distributed unequally. The level of inequality is endorsed by the followers as much as by the leaders. The features of a society with a large power distance are: the view that power is a basic fact of society, antedating good or evil; parents teach children obedience; parents are both respected and feared; and subordinates expect to be told what to do. The features of a society with a small power distance are: the use of power should be legitimate and is subject to criteria of good and evil; parents treat children as equals; older people are neither respected nor feared; hierarchy means inequality of roles; and subordinates expect to be consulted (Hofstede, 2011).
- **Uncertainty avoidance** is not the same as risk avoidance; it relates to society's tolerance for ambiguity. Unstructured situations are novel, unknown, surprising, and different from the usual. Uncertainty-avoiding cultures try to minimise the possibility of such situations by strict behavioural codes, laws, and rules. They

disapprove of deviant opinions and believe that there can be only one truth (Hofstede, 2015).

- **Individualism versus collectivism** refers to the degree to which people in a society are integrated into groups. In an individualist society, everyone is expected to look after him- or herself; they have a right to privacy; they are classified as individuals; and task prevails over relationship. They hold the belief that speaking one's mind is healthy. In this society, transgression of a norm leads to feelings of guilt. In a collectivist society, individuals are integrated into strong, cohesive in-groups from birth. Extended family often continue to protect individuals in exchange for unquestioning loyalty and opposition to other in-groups. Relationship prevails over task. Individuals have a strong desire to belong, and transgression of norms leads to feelings of shame. Such societies also believe that harmony should always be maintained (Jones, 2007; Hofstede, 2011).
- **Masculinity versus femininity** refers to the value attached to a gender in a society. Societies that value men higher attach more value to male characteristics such as assertiveness, ambitiousness, and competitiveness, while societies that value modesty and caring place a higher value on women. The functioning of societies may also be gendered. In a masculine society, men are expected to show masculine traits. Fathers deal with facts, and mothers with feelings; girls cry, and boys do not; boys fight back, and girls should not. Fathers decide on family size, and few women are elected to political positions. In a femininity society, there is minimum emotional and social differentiation between the genders. Both men and women are expected to be modest and caring, and both have sympathy for the weak. Both mothers and fathers deal with facts and feelings, both boys and girls may cry, but neither should fight. Mothers decide on the number of children, and many women are elected to political positions (Hofstede, 1980; Jones, 2007; Hofstede, 2011; Hofstede, 2015).

Culture shapes how financial knowledge is transferred to children. Hofstede (2015) posits that cultural values are acquired in childhood, and are generally stable over generations, making parents the primary agent in transferring cultural values (Hofstede, 2015). However, Hayta (2008) notes that, through developments in technology and communication, cultural values change over time.

Gudmunson and Danes (2011) note that differences in the cultures across races, ethnicities, and nationalities lead to different outcomes of purposive family socialisation. Cultural models of parenting include the ideologies, short- and long-term goals, and values that guide parents' child-rearing decisions and actions (Suizzo, Robinson & Pahlke, 2008). Cultural differences also lead to different meanings attributed to money. Beutler and Dickson (2008) found that, although ideas about the functioning of banks were similar, cultural differences between Netherlands and Hong Kong influenced understanding of financial concepts. Similarly, Hudson et al. (2017) found that the financial decisions of people of African descent are driven by religion and cultural norms. Ekanem (2013) found that many ethnic minority communities and black communities in the UK uphold strong cultural and religious norms of settling debts, as there is a strong desire to avoid bankruptcy.

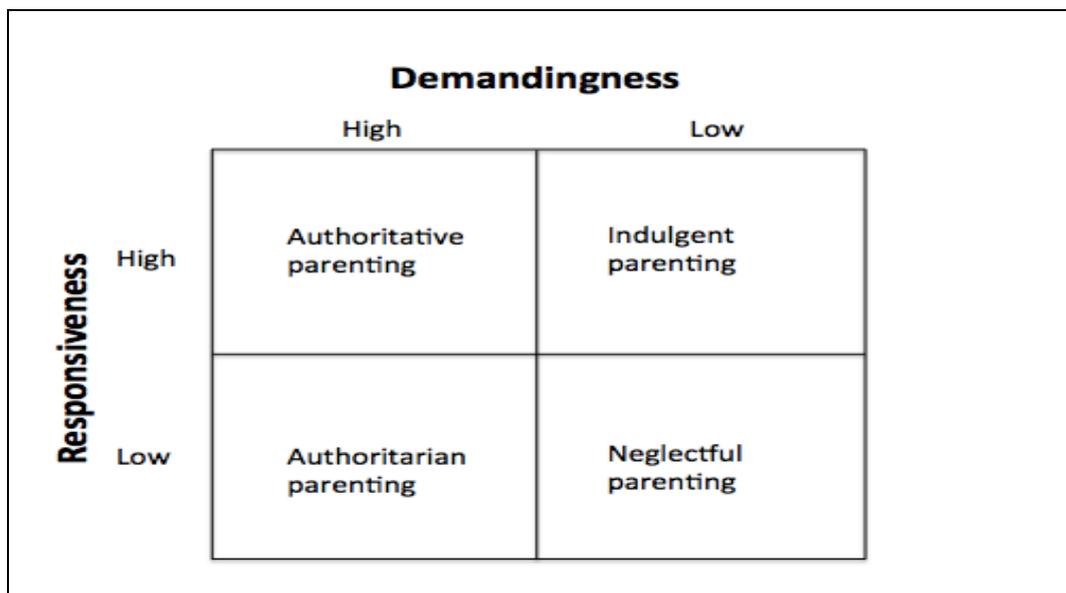
### **3.8.2.3 Parenting styles**

A parenting style is defined as a collection of attitudes, behaviours, and styles of interaction with children that produce the emotional family context in which socialisation occurs. It is also considered a pattern of childrearing that is characterised by traditional and specific responses to child behaviours (Coplan, Hastings, Lagace-Seguin & Moulton, 2002). Parent-child interaction is amongst the most important predictors of children's financial development (Strom, Strom & Beckert, 2008). How parents interact with their children from childhood to adulthood determines how and whether norms, attitudes, and behaviours are learned and adopted (Drever et al., 2015).

Parental influence differs according to certain factors that characterise how the parents interact with their children (Carlson, Laczniak & Wertley, 2011). For example, Richman and Mandara (2013) found that parenting styles differed substantially across race and ethnic groups. Baumrind (1967) proposed four dimensions of parenting: control, clarity of communication, demandingness, and responsiveness. *Control* refers to behavioural control — the demands of parents in order to integrate children into the family, and psychological control, which refers to attempts to control the psychological and emotional development of the child. *Clarity of information* relates to transmission of information at an appropriate developmental level, so that the child's understanding is maximised. *Demandingness* refers to parents' expectation of their children to behave

or react in line with their developmental level, and *responsiveness* refers to parents' expression of warmth, concern, involvement, and pleasure in parenting.

Baumrind (1967) created a typology of parenting styles, namely authoritarian, authoritative, permissive or indulgent, and uninvolved or neglectful, which have been linked to children's consumer socialisation processes and outcomes (Carlson et al., 2011). However, there is limited review of this typology in financial socialisation literature (Buccioli & Veronesi, 2014), and more research is required, which is why it was applied in the present study. The parenting styles are depicted in Figure 3.17.



**Figure 3.17: Typology of parenting styles**

Source: Maccoby & Martin (1983)

#### **3.8.2.3.1 Authoritarian**

The authoritarian parenting style is characterised by high demandingness and low responsiveness and represents total control of the child by the parent (Baumrind, 1968). According to Maccoby and Martin (1983), parents who follow this style show high levels of control and maturity demands and low levels of nurturance and clarity of communication. These parents are very involved in their children's lives and believe in giving children rules and guidelines to follow. They also expect their rules to be obeyed without question (Carlo, McGinley, Hayes, Batenhorst & Wilkinson, 2007). Authoritarian parents seek high levels of control over their children because they view children as dominated by egotistical and impulse forces. These parents judge their

children's conduct according to religious, cultural, or other standards endorsed by authority. They believe in parental authority, keeping children in subordinate roles, restricting expression of autonomy, and not encouraging verbal exchanges between parents and children (Baumrind, 1968). Authoritarians believe children have few rights but have adult responsibilities. These parents are more restrictive, and they display more hostility towards their children (Mikeska et al., 2017).

Baumrind (1967) noted a widely held view that the authoritarian parenting style is more effective in the socialisation and shaping of children's behaviour because of the level of parental power, which is exacted through reinforcement contingencies. Children's complex behaviour patterns, especially social behaviours, are learned because of the positive or negative consequences with which their behaviours have been associated. Thus, these parents believe that their children will only display socially competent behaviours if they are shaped by the parents. Behaviourists and traditionalists both stress the need for learning and the duty of parents to make uncompromising demands of their children, thus supporting the authoritarian parenting style (Baumrind, 1967).

#### **3.8.2.3.2 Authoritative**

The authoritative parenting style includes high demandingness and high responsiveness. It permits the child a high degree of autonomy, and is regarded as parenting that is rational, consistent, and warm (Baumrind, 1968). These parents value children's independence but expect disciplined conformity. Authoritative parents are characterised by an effort to direct children in an issue-oriented and rational manner (Mikeska et al., 2017). They have firm control, but do not overly restrict the child. They affirm the child's present qualities, but also set standards for future conduct. Children from authoritative homes appear to be higher on a number of outcomes than their peers who experienced a different type of parenting, specifically social assertiveness, social responsibilities, and cognitive competence (Maccoby & Martin, 1983).

Soward (2006) revealed a positive relation between authoritative parenting and children's impulse control, which is associated with a stronger future orientation, which, in turn, has been shown to affect financial behaviours like saving and retirement planning. Highly involved parenting has also been linked to a range of other behaviours that have potential impacts on financial outcomes, including cognitive development and motivation to learn financial matters. Buccioli and Veronesi (2014)

argue that receiving an allowance, in itself, does not foster saving behaviour amongst young adults; however, it was found to be effective when combined with parental oversight of budgeting and how the money is spent. Thus, children of authoritative parents benefit from financial monitoring by their parents.

### **3.8.2.3.3 Permissive**

Permissive or indulgent parents are less controlling and avoid the use of punishment. They also make fewer maturity demands of their children and are characterised by high responsiveness. Permissive parents attempt to behave in a non-punitive, acceptant, and affirmative manner towards their children's impulses, desires, and actions. They allow their children to regulate their own activities as much as possible, avoid the exercise of control, and do not encourage them to obey externally defined standards (Baumrind, 1967).

The main characteristic of the permissive parenting style is children's self-regulation; children are considered to have the right to live freely, without outside authority over things psychic and somatic, meaning that children are allowed to eat when they are hungry, clean only when they want to, are never scolded or spanked, and are always loved and protected (Baumrind, 1968). Neill (1960) argues that to impose anything by authority on children is wrong. Children should not do anything until they are of the opinion that it should be done. Thus, any attempt to shape children's behaviour prematurely involves an unnatural and unnecessary infringement on children's freedom, and results in neurosis and insufficiency. Permissive parents believe that children should be given freedom to regulate their own behaviours.

The permissive style of parenting has received much criticism. Pong, Hao, and Gardner (2005) posit that children of permissive parents have less ability to delay gratification. They want to buy something immediately, and if they do not have the money, they will borrow it. This indicates a possible relationship between impulsivity and lack of parental guidance (Pong, Hao & Gardner, 2005). Permissive parents employ little control in their interactions with their children. They communicate total acceptance of the child's behaviour, do not use punishment, and often give in to the child's desires and pleading, because they do not believe in a family hierarchy. These parents tend to avoid confrontation and encourage children to be responsible for their own actions (Estlein, 2016).

#### **3.8.2.3.4 Neglectful**

Neglectful or uninvolved parents are characterised by low demandingness and responsiveness. Thus, they are low in nurturing, and also low in authoritarian characteristics. They are not involved emotionally with their children, provide minimal supervision, and maintain distant relations with their children (Estlein, 2016). They neither seek nor exercise much control over their children, perhaps because they are self-involved and deny or wish to avoid obligations to provide guidance. Their limited restrictiveness is coupled with a relative lack of warmth or anxious concern about the child's development. They see children as having few rights or responsibilities that require parental attention, and as being capable of meeting many of their own needs, therefore requiring little communication and reinforcement (Pong et al., 2005). Neglectful parents do little or nothing to monitor or directly encourage their children's ability to function autonomously, and do not encourage their children's self-regulation or impose control over the children's behaviour (Carlson & Grossbart, 1988). This leads to their children having low self-esteem and slower emotional development. Neglectful parents are unresponsive; they do not provide structure or monitor their children's behaviour, and, in many cases, they neglect their parenting responsibilities altogether (Bednar & Fisher, 2003).

### **3.9 EARLIER EMPIRICAL STUDIES ON PARENTAL FINANCIAL SOCIALISATION**

Empirical evidence of parental financial socialisation of young adults' financial literacy in South Africa, especially in rural and low-income areas, has received limited consideration. The present researcher is not aware of any empirical study on the influence of parental financial socialisation on young black African adults' financial literacy in South Africa. The majority of studies in this domain were conducted in developed countries. These studies produced mixed results; therefore, there is lack of consensus in the literature. This section provides a review, first, of studies in Western countries, followed by a review of literature on Africa and South Africa in this domain.

### **3.9.1 Earlier Empirical Studies in Western Countries**

The review of studies conducted in Western countries first covers those that found a significant relationship between parental financial socialisation and financial literacy, whereafter studies that found a weak or insignificant association are discussed.

The majority of empirical studies that support the view that parental financial socialisation influences financial literacy were conducted by Mehta and Keng (1985). One such study explored the influence of family on financial behaviour, attitudes, knowledge, and social and economic motivations for consumption amongst 359 adolescents in Singapore. The study revealed that family interactions on issues and matters of consumption positively impact the increase of economic motivations for consumption in adolescents. Marshall and Magruder (1960) sampled 512 children in Kentucky to determine the association between parents' money education practices and children's knowledge and use of money. The study found that parents' financial practices and money teaching have an impact on children's financial knowledge, money management skills, and financial attitude. According to Cude, Lawrence, Lyons, Metzger, LeJune, Marks, and Machtmes (2006), parents have the highest impact on young adults' money management behaviour. Jorgensen (2007) explored the association between parental influence and financial knowledge, attitude, and behaviour of students. The results showed that students who demonstrated higher scores on financial attitude, behaviour, and knowledge had been influenced by their parents.

A study by Shim et al. (2009) investigated the association between parental financial socialisation and financial knowledge and financial well-being of young adults in the USA. The results indicated that parents' financial interactions were strongly associated with better financial knowledge and contributed to the overall financial well-being and academic success of young adults. Lusardi et al. (2010) found that a college student with a parent who had invested in stocks and retirement savings is more likely to understand risk diversification. Serido et al. (2010) surveyed 2 098 first-year university students in the USA to determine parents' influence in the development of their children's financial behaviour, well-being, and financial liberation when children enter adulthood. They found that parental financial relations with their children enhance their children's financial coping behaviours, well-being, competence, and financial liberation

in adulthood. Kim et al. (2011) explored the impact of parental financial monitoring, warmth, and parent–child finance communications on the financial behaviour of 1 471 adolescents in the USA in a panel study of income data for the period 2002/2003. They observed that more interactions between parents and children about donations enhance children’s ability and willingness to save and to donate. The results also showed a positive relationship between parental warmth and saving for the future and giving children an allowance was found to have a negative association with financial anxiety amongst children.

Kim and Chatterjee (2013) examined the relationship of childhood financial engagement with financial behaviour, financial practices, and young adults’ asset choices in the USA. The study found that financial socialisation in childhood has a strong relationship with sound financial practices and asset ownership in young adulthood. Further, the young adults whose spending and financial behaviour were observed by parents in childhood displayed confident attitude towards personal finances. Akben-Selcuk and Altiok-Yimaz (2014) investigated the relationship between parental financial teaching and financial literacy amongst 853 Turkish university students. The results also indicated a strong and positive association between financial literacy and parental financial teaching.

A study by Grohmann and Menkhoff (2015) investigated the impact of parents on children’s financial behaviour in Bangkok. They found that parental teaching has the greatest effect on young adults’ financial behaviour. Grohmann, Kouwenberg, and Menkhoff (2015) investigated the roots of financial literacy amongst 500 middle-class people in Thailand. They observed that family has a positive impact on the financial literacy of young adults. Serido et al. (2015) extended the theoretical concept of parental financial socialisation by including romantic partners in exploring the effect thereof on the financial attitude and behaviour of 2 098 young adults in the USA. The study indicated that romantic partners’ and parents’ sound financial behaviour has a positive effect on young adults’ financial behaviour and attitude. Akben-Selcuk (2015) examined the factors that influence financial behaviours amongst 1 539 Turkish college students, and focused on budgeting, saving, and debt repayments. The results showed that financial teaching by parents has a positive impact by enhancing the behaviours of paying debt on time, budgeting, and saving.

Mahapatra et al. (2016) measured factors that impact the financial literacy of 425 college students in the cities of Hyderabad and Secunderabad in India. The results showed that respondents' family income and parents' educational level and profession have a strong influence on students' financial literacy in terms of saving, borrowing, and financial investment, but found no significant relationship between parents' levels of education and the students' overall financial literacy. Furthermore, it was found that parents who are involved in financial matters and keep track of their expenditures have a strong influence on students' understanding of insurance. The results also revealed that parental discussions about financial matters and teaching about finances and saving have a negative effect on the general financial literacy of students. The study also found that students regard their parents as role models with regard to money management.

A study by Sundarasan, Rahman, Othman, and Danaraj (2016) assessed the correlation between money management, financial literacy, financial socialisation agents, and parental norms amongst postgraduate students in Malaysia. The study found that financial literacy, socialisation agents, and parental norms influence young adults' money management behaviour. Homan (2016) surveyed 2 000 households in Netherlands to determine the impact of financial teaching by parents on their children's saving and borrowing behaviour. The study found that teaching of financial matters leads to sound saving behaviour, coupled with a low level of borrowing. The results also showed that parental financial teaching is more effective when done throughout childhood.

Mohamed (2017) examined the correlation between financial socialisation, financial behaviour, financial knowledge, and financial well-being of 391 young employees in Malaysia. The results showed a positive correlation between parental financial socialisation and attainment of financial knowledge and sound financial behaviours. Rosenberg (2017) assessed the association between wealth, financial literacy, and parental financial advice amongst youths in the USA. The study found that financial literacy and parental financial socialisation through advice are positively associated with high levels of wealth amongst young adults.

Palaci, Jimenez, and Topa (2017) found that parental economic socialisation has a positive impact on young adults' financial planning for retirement in Spain. Kim and

Torquati (2019) found that parents' financial behaviours significantly predict college students' financial attitudes. Fan and Chatterjee (2019) examined the role of financial socialisation on student loan repayment behaviours and related financial stress. The results revealed that students who learned about finances from their parents are less likely to worry about their student debt. Utkarsh, Pandey, Ashta, Spiegelman, and Sutan (2020) conducted a cross-sectional survey on 446 young adults to investigate the impact of financial socialisation, financial literacy, and attitude towards money on the financial well-being of young adults. The results showed that financial discussions with parents during childhood positively influence their financial well-being.

Zhao and Zhang (2020) examined how family financial socialisation affects individuals' financial outcomes, financial literacy, financial behaviour, and financial well-being. The results indicated that parental financial socialisation has a significant positive impact on financial literacy, financial behaviour, and financial well-being. LeBaron, Holmes, Jorgensen, and Bean (2020) examined whether overt financial education by parents during childhood is associated with a greater frequency of healthy financial management behaviours in emerging adulthood. The results suggested that financial education by parents during childhood is linked with a greater frequency of healthy financial behaviours in emerging adulthood. Li, Zuiker, Mendenhall and Montalto (2021) investigated how parents influence Asian college students' financial attitudes, financial knowledge, and financial behaviours through family financial socialisation. The results showed that parental financial socialisation is positively associated with financial behaviours of Asian college students.

Some empirical studies on parental financial socialisation influence found a weak or insignificant associations. Webley and Nyhus (2006) explored parental impact on children's future orientation and saving in Netherlands. The results showed that parents' involvement in conversing about financial matters with their children has a weak effect on children's economic and financial behaviour. A study by Brau, Holmes, and Israelsen (2010) examined the influence of learning sources on financial literacy amongst 1 500 young adults in the USA. The study revealed that family and background have an insignificant effect on financial literacy. Brau et al. (2010), however, argue that experiential learning is strongly associated with improved levels of financial literacy amongst young adults.

Jorgensen and Salva (2010) tested the theory that financial literacy can be impacted by parents in a study of 420 young adults in Tennessee, Nevada, Oklahoma, South Dakota, Idaho, and Virginia. The results showed a direct and reasonably positive impact on financial attitude. However, parents were not found to influence the financial knowledge of young adults. The study also found an insignificant effect on financial behaviour facilitated by financial attitude.

Albeerdy and Gharleghi (2015) examined the relationship between financial socialisation agents and financial literacy amongst 105 students in Malaysia. The study found a weak relationship between financial socialisation agents and financial literacy. The results also indicated that 77% of students had relied on their parents for financial information.

Sohn et al. (2012), in a study conducted in South Korea, argue that, even though family has been observed as the most important source of financial information, family does not have a significant impact on adolescents' financial literacy when compared to schools, media, and friends. Kaur, Vohra, and Arora (2015) found that the demographic variables of schooling, family income, and parents' occupation and qualification have no impact on students' levels of financial literacy through parental financial socialisation. Ameer and Khan (2020) found that financial socialisation through family and friends is not associated with higher financial literacy and financial confidence.

The value of parental financial socialisation is not immune to criticism. Williams (2009) argues that young adults acquire most of their financial information and knowledge at home but cautions that most parents are likely to teach their children based on their own emotions towards money. Drever et al. (2015) argue that to be effective and positively impact financial knowledge and money management, parental financial socialisation with their children should start at an early age, so that it can advance through each developmental stage of the child. Therefore, the timing of financial socialisation is critical. From the above, it is clear that it is extremely important that parents understand the role they play in their children's financial socialisation and the effect it will have on their financial management practices (Head, 2014).

### **3.9.2 Earlier Empirical Studies in Africa and South Africa**

On the African continent, almost 96.9 million of the youth is out of school (United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2018), with limited access to financial education and financial services. Parental financial socialisation is therefore extremely important, especially considering Africa's commitment to the Sustainable Development Goals 2030 (United Nations Development Programme (UNDP), 2018) and the African Union's Agenda 2063, which aim to reduce inequality and improve health and well-being to build a prosperous and inclusive Africa.

Few notable studies on financial socialisation have been conducted in Africa. A study by Ansong and Gyensare (2012) explored the determinants of financial literacy of 250 working students of the University of Cape Coast in Ghana. The study found a moderate association between financial literacy and the level of the mother's education. Chowa and Despard (2014) investigated the effect of perceived financial socialisation by parents and guardians on the financial behaviour of 3 623 youths aged 12 to 19 years in eight regions in Ghana. The study found a strong association between parents' or guardians' and youths' perceived parental financial socialisation and youths' financial behaviour.

In South Africa, Nomlala (2021) investigated the financial socialisation of 1 582 accounting students at South African universities. It was found that accounting students are often financially socialised by their immediate family members, and that there is a statistically significant association between parents' level of education and students' financial socialisation. A study by Antoni and Saayman (2021) examined the influence of financial socialisation mechanisms on the levels of financial literacy of 263 young financial professionals in the Eastern Cape. The results revealed that parental financial teaching and modelling positively influence the financial literacy of young financial professionals.

Antoni, Rootman, and Struwig (2019) investigated the influence of parental financial socialisation techniques on the financial behaviour of 350 students. The results showed that the financial socialisation techniques of financial teaching and monitoring, modelling of financial behaviour, and reinforcement of financial behaviour significantly influence the financial behaviour of students. Antoni (2018) surveyed 350 Nelson

Mandela University students to determine the role of family structure and financial socialisation on students' financial capabilities. The study found that family structures and financial socialisation influence the financial capabilities of students. Sallie (2015) assessed the influence of socialisation factors on financial literacy and financial security of 300 employees in the financial services industry in urban areas. The results indicated an insignificant association of the influence of parents, friends, colleagues, and peers with financial literacy. However, the study found that financial education, reading books, multimedia, and formal education influence financial literacy. From the above, it is clear that little is known about parental financial socialisation in Africa, and South Africa in particular, amongst black African parents and their children in rural and low-income areas.

Studies of financial literacy have shown that people in rural and low-income areas in South Africa are financially vulnerable (Loke, 2015; Finmark Trust, 2019). Moreover, young black African adults display low levels of financial literacy when compared to other population groups in South Africa (Antoni, 2014; Matemane, 2018). Therefore, it is imperative that more research be conducted on parental financial socialisation, as it could provide crucial information to policy makers on how to address this issue.

### **3.10 SUMMARY**

This chapter examined parenting by exploring the definition of parents, parental roles, and parenting styles. It was shown that parenting is more than just taking care of children; parents also need to provide emotional support and interact with their children. The definition of *parent* was drawn from the Children's Act 38 of 2005, and for purposes of the present study was defined as any person who takes care of the child by assuming parental responsibilities.

Parental financial socialisation was defined as consisting of financial teaching, financial discussions, financial modelling, and financial monitoring. A brief overview of empirical studies on parental financial socialisation were highlighted, followed by the factors that influence parental financial socialisation. These included individual factors and social structural factors. Individual factors included in the study were age and gender of the child, while social structural factors included parental SES, culture, and parenting style. The next chapter discusses financial literacy, which discussion includes the dimensions of financial literacy and empirical studies.

## **CHAPTER 4**

### **FINANCIAL LITERACY: AN OVERVIEW AND EMPIRICAL EVIDENCE**

#### **4.1 INTRODUCTION**

The previous chapter reviewed literature on parenting, young adulthood, and parental financial socialisation, in order to contextualise the study and cover important aspects that shaped the study. A broader understanding of parenting was proposed through the definition of parents, parenting in black African households in South Africa, parenting young black African adults in South Africa, and parental roles. It was shown that parenting in black African households is more complex than those of other population groups. It was shown that young black African adults are unable to manage their finances and struggle to become financially independent, due to a high rate of unemployment. It was also indicated that young adulthood is a stage of development between adolescence and adulthood, and that it is a stage that poses various challenges to young adults. The discussion of parental financial socialisation highlighted several components that may assist in addressing the financial illiteracy of young black African adults in rural and low-income area.

The current chapter focuses on financial literacy, as it is an important mechanism in dealing with the high levels of indebtedness and widespread financial stress that characterise the deteriorating financial well-being of young black African adults in rural and low-income areas in South Africa. This chapter comprises seven sections: Section 4.2 deals with the definition of financial literacy, Section 4.3 provides the dimensions of financial literacy, and Section 4.4 discusses the link between financial knowledge, financial attitudes, financial behaviour, and financial decision-making. Section 4.5 presents earlier empirical studies on financial literacy conducted around the world, while Section 4.6 discusses such studies conducted in South Africa. Section 4.7 deals with the importance of financial literacy, and Section 4.8 presents the summary of the chapter.

## 4.2 DEFINITION OF FINANCIAL LITERACY

This section covers the definition of financial literacy from both a conceptual and an operational perspective.

### 4.2.1 Conceptual Definition of Financial Literacy

There is no consensus in literature on the meaning and measurement of financial literacy. Researchers have defined financial literacy differently, and some use it interchangeably with terms such as financial capability, economic literacy, debt literacy, financial education, and financial knowledge (Huston, 2010; Remund, 2010; Arceo-Gomez & Villagomez, 2017; Matemane, 2018).

Some authors (Taylor, 2011; Shim, Serido, Bosch & Tang, 2013; Xiao & O'Neill, 2016) have suggested that financial capability includes financial literacy, financial self-efficacy, and financial behaviour. Antoni (2018) asserts that financial capability refers to financial knowledge, attitudes, self-efficacy, and behaviour. Nanziri and Leibbrandt (2018), however, assert that financial literacy is a composite of two domains, namely financial knowledge and financial capability. Johnson and Sherraden (2007) contend that financial capability is a more concrete concept than financial literacy. There is also contention regarding which one is the precursor to the other, whether it is financial literacy or financial capability (Arceo-Gomez & Villagomez, 2017). It seems from literature that most researchers contend that financial literacy is a precursor to financial capability and financial well-being (Remund, 2010; Taylor, 2011; Shim et al., 2013). Thus, individuals become financially literate through the acquisition of financial knowledge, attitude, self-efficacy, and behaviours, and so become financially capable, ultimately achieving financial well-being.

The construct *financial capability* is often used in studies conducted in the United Kingdom (UK) and Australia and is often defined as an individual's ability to make informed decisions in managing money, planning ahead, choosing appropriate financial products, and staying informed (Financial Services Authority (FSA), 2005; Atkinson, McKay, Kempson & Collard, 2006; Worthington, 2006; Orton, 2007; Atkinson, 2011; Xu & Zia, 2012; Shim et al., 2013). According to Ranta and Salmela-Aro (2018), financial capability theory states that differences in financial confidence may influence financial behaviour, which, in turn, affects subjective and financial well-

being. Financial capability's dimensions are financial self-efficacy, self-beliefs (which include financial attitudes informed by responsible financial practices), and perceived behavioural control — the belief that one's behaviour will lead to an expected outcome based on past experiences and expected barriers (Serido et al., 2013).

Financial literacy has mostly been researched in the USA and European countries, with developing countries only starting to embrace its importance. It is clear in literature that scholars have not yet agreed on the definition of financial literacy, which poses a challenge in conducting and comparing research in this domain (Remund, 2010; Huston, 2010; Xiao & O'Neill, 2016; Arceo-Gomez & Villagomez, 2017).

Garman and Fogue (1988) assert that financial literacy encompasses knowing the facts and having the vocabulary to manage one's finances successfully. This view is supported by the National Foundation for Educational Research (NFER) (1992), which equates financial literacy to the ability to make informed decisions regarding the use of money. Hogarth (2002), however, argues that the term means different things to different people. For some, it includes understanding economics and how household decisions are affected by economic conditions and circumstances; for others, it means basic abilities in money management, budgeting, saving, investing, and insuring. Other studies have defined financial literacy as the ability to read, analyse, manage, and communicate about the personal financial conditions that affect material financial well-being (Chen & Volpe, 2002; Moore, 2003; Beal & Delpachitra, 2003; Hilgert, Hogarth & Beverley, 2003; Anthens, 2004; Vitt, Reichbach, Kent & Siegenthaler, 2005; OECD, 2005; Morton, 2005; Meier & Sprenger, 2007; Mandell, 2008). Lusardi (2008) defines financial literacy as knowledge of basic financial concepts, such as the working of compound interest, the difference between nominal and real values, and the basics of risk diversification. This definition became popular and was widely used in other financial literacy studies (Lusardi & Tufano, 2009).

The various definitions of financial literacy in use led to some researchers conducting a comprehensive review of the definitions and measurements of financial literacy (Hung, Parker & Yoong, 2009; Huston, 2010; Remund, 2010). Hung et al. (2009) found a wide variety of definitions across studies, with some definitions referring only to financial knowledge, while others provide an extensive explanation that includes financial knowledge and experiences, as well as the competent use of this knowledge.

Huston (2010) reviewed 71 studies on financial literacy and found that over 51 did not define financial literacy. The other 20 studies did provide eight different definitions of the concept. Based on the results Huston (2010) agreed with previous studies which defined financial literacy as financial knowledge.

Remund (2010) reviewed financial literacy studies since 2000 and posited that the definitions of financial literacy fall into five categories: knowledge of financial concepts, the ability to communicate about financial concepts, aptitude in managing personal finances, skill in making appropriate financial decisions, and confidence in planning effectively for future financial goals and needs. Based on the review, Remund (2010) provided a conceptual definition of financial literacy: a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate short-term decision-making and sound long-range financial planning, while mindful of life events and changing economic conditions.

Extensive work has been done to try to establish a common definition of financial literacy. The Organisation for Economic Co-operation and Development (OECD) created the International Network on Financial Education (INFE) in 2008 in order to reach beyond the OECD member countries and provide a clear definition and measurement of financial literacy. In 2010, the INFE was formalised, and since then, several reviews have been done on the definition and measurement of financial literacy (Atkinson, 2011; Lusardi, 2015). In recent years, the World Bank embarked on several projects to measure issues of financial literacy comprehensively (De Clercq, 2019). Warmath and Zimmerman (2019) argue that financial literacy is the combination of the skill to gather the necessary advice and information needed for a financial decision and the ability to build useful stores of financial knowledge from the experience to apply to future decisions. A more comprehensive conceptual definition is that of the OECD, which defines financial literacy as a combination of the awareness, knowledge, skills, attitudes, and behaviours necessary to make good decisions about finances, in order to ultimately achieve financial security and participation in economic life (OECD, 2011, 2013, 2015, 2017).

#### **4.2.2 Operational Definition of Financial Literacy**

The operational definition of financial literacy is centred around the measurement of financial literacy. Studies in financial literacy have used different measurements, due to a lack of an accepted conceptual definition, specifically in studies conducted in early 2000, before the founding of the INFE in 2010 by the OECD (Hung et al., 2009; Huston, 2010; Remund, 2010). In order to measure financial literacy effectively, one must consider the operational definition of financial literacy through both the inputs and outputs of financial literacy. Inputs are knowledge, skills, and expertise, while outputs are financial attitude and behaviours based on the knowledge, skills, and expertise acquired (Holzmann, 2010).

Studies have provided inputs regarding the operationalisation of the definition of financial literacy. Moore (2003) argued for financial knowledge, financial experiences, financial behaviour, and debt confidence as inputs in financial literacy. Lusardi and Tufano (2009) posited debt literacy and knowledge about compound interest in real-life situations as important inputs. According to Huston (2010), financial literacy is about financial knowledge. Lusardi and Mitchell (2011) posited knowledge of basic financial concepts and the ability to do simple calculations as inputs. Gustman, Stenmeier, and Tabatabai (2012) posit that numerical skills are a component of financial literacy, as such skills are associated with investment knowledge.

Lusardi (2015) posited three inputs, namely content, processes, and contexts. Content includes money and transactions, planning and managing finances, risk and reward, and the financial landscape. Processes include identifying financial information, analysing information in a financial context, evaluating financial issues, and applying financial knowledge and understanding. Contexts are education and work, home and family, individual, and societal. Warmath and Zimmerman (2019) used Bloom's domains of knowledge to operationalise financial literacy into financial skill, self-efficacy, and explicit financial knowledge.

The OECD (2011) provided three dimensions of financial literacy that are suitable internationally for the comprehensive assessment and measurement of financial literacy, with a view to assisting researchers and organisations to operationalise the definition of financial literacy. These dimensions are financial knowledge, financial behaviour, and financial attitude. Potrich, Vieira, and Kirch (2015) reviewed and

synthesised key concepts and dimensions related to financial literacy as indicated in Table 4.6.

**Table 4.6: Key concepts and dimensions related to financial literacy**

<b>Financial literacy concepts</b>	<b>Dimensions</b>	<b>Authors</b>
Financial knowledge and the application of that knowledge with self-confidence in making financial decisions	Financial knowledge and application of knowledge	Huston (2010)
The ability to use knowledge and skills acquired to better manage finances	Financial knowledge and skills	Hung et al. (2009)
The ability to understand financial information and make effective decisions by using this information	Understanding and decision-making	Robb, Babiarz & Woodyard (2012)
Financial literacy goes beyond financial education; the influence of financial knowledge on behaviour is mediated by financial attitude	Knowledge, behaviour, and attitude	Norvilitis & MacLean (2010)
The choice from numerous alternatives to achieve financial goals	Effective choice	Criddle (2006)
Making informed financial decisions	Financial decisions	Remund (2010)
The most specific human capital, measured according to financial literacy dimensions	Financial knowledge	Robb & Sharpe (2009)
Measured through a set of questions on primary financial concepts such as capitalisation of interest, inflation, and risk diversification	Financial knowledge	Lusardi (2008); Lusardi & Mitchell (2014)
Financial literacy has three dimensions: financial knowledge, financial behaviour, and financial attitude	Financial knowledge, financial behaviour, and financial attitude	Atkinson & Messy (2012); OECD (2013)
Financial literacy is measured through general strategies of managing money and the capacity to do interest calculations	Money management skills and numeracy	French & McKillop (2016)
Financial literacy consists of objective financial knowledge, subjective financial knowledge, and subjective financial management ability	Financial knowledge and financial management ability	Henager & Cude (2019)

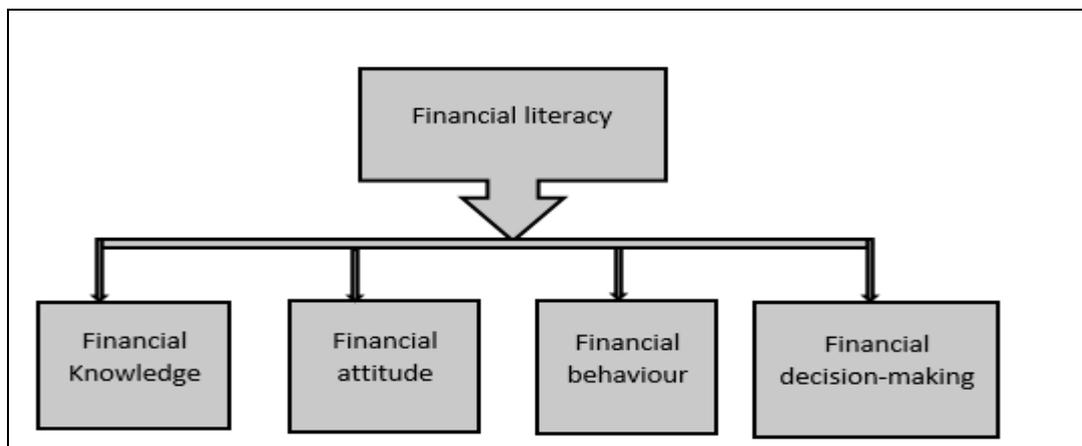
Source: Potrich et al. (2015)

Table 4.6 provides a summary of the concepts and dimensions related to financial literacy that are widely used in research. Financial knowledge, financial attitude, and financial behaviour are the dominant dimensions used in previous studies, with most studies using one or two dimensions. Few studies have used all three dimensions

proposed by the OECD (2011). From the literature cited in Table 4.7, it is clear that financial decision-making is the dimension least researched. The OECD (2016) added more confusion to the inconsistency in the measurement of financial literacy and left it in the hands of researchers by noting that researchers should identify areas in their context that they seek to address, and benchmark these against the three financial literacy dimensions proposed by INFE in 2011. In the present study, the three financial literacy dimensions proposed by the OECD (2011) were adopted, together with the dimension of financial decision-making, as it has been found that financial well-being also relies on individuals making prudent financial decisions (Xiao & O'Neill, 2016).

### 4.3 DIMENSIONS OF FINANCIAL LITERACY

As noted above, the three dimensions of financial literacy proposed by the OECD (2011), namely financial knowledge, financial attitude, and financial behaviour were adopted in the present study. In addition, the dimension of financial decision-making was added because individuals in rural and low-income area are often confronted with complex financial products and services due to limited financial knowledge and financial exclusion which complicates their financial decision-making process. Figure 4.18 illustrates the dimensions of financial literacy used in the present study.



**Figure 4.18: Dimensions of financial literacy for the study**

Source: Author's own compilation

These dimensions are discussed in detail in the following sections.

### **4.3.1 Financial Knowledge**

Financial knowledge is considered a key dimension of financial literacy (Huston, 2010). A number of studies have used financial knowledge as a synonym for financial literacy (Lusardi & Mitchell, 2011; Huang, Nam & Sherraden, 2013; Bucher-Koenen, Lusardi, Alessie & Van Rooij, 2017). Financial knowledge is information that is learned, organised, and represented and stored in memory. Individuals can retrieve, use, and update their financial knowledge to reason in order to make financial decisions (Wang, 2009). Thus, financial knowledge is an understanding of important personal financial concepts like budgeting and saving. Delavande, Rohwedder, and Willis (2008) posit that financial knowledge is a particular type of capital acquired in life by learning to soundly manage income, expenditure, and savings.

Financial knowledge has two components, namely objective knowledge and subjective knowledge (Allgood & Walstad, 2016). Objective financial knowledge is actual financial knowledge, while subjective financial knowledge is perceived financial knowledge (Henager & Cude, 2019; Ramalho & Forte, 2019). Objective knowledge facilitates the acquisition of additional financial information through deliberation. It is accurate stored information. Individuals who have a high level of objective knowledge are usually able to employ category-based processing, as they are likely to develop a set of expectations about financial products over time. Knowledgeable individuals can process financial information regarding, for example, mutual funds effortlessly, as an initial categorisation is accessible with which to process the information (Ramalho & Forte, 2019).

Subjective knowledge refers to individuals' belief about the state of their knowledge and includes the individuals' confidence in their knowledge. Subjective financial knowledge may be associated with relying on one's own processing skills and, as result, may affect the acceptance of financial information. For example, individuals who consider themselves familiar with investing in mutual funds may find it easier to make financial decisions regarding mutual funds (Wang, 2009). Accordingly, self-perception of financial knowledge plays a role in financial well-being (Allgood & Walstad, 2016). According to Xiao et al. (2011), subjective financial knowledge does more to prevent risky credit behaviours and credit card debt accumulation than objective financial knowledge. Xiao, Chen, and Chen (2014), in a panel data study of

college students, found that subjective knowledge has a stronger impact on subsequent behaviours than objective knowledge. It is thus clear that both subjective and objective financial knowledge play a role in financial literacy (Potrich, Vieira & Mendes-Da-Silva, 2016).

Huston (2010) asserts that financial knowledge can be categorised into two dimensions, namely knowledge and application. The knowledge dimension refers to knowledge acquired through education and/or experience specifically related to essential personal finance concepts and products. The application dimension refers to the ability and confidence to effectively apply or use knowledge related to personal finance concepts and products.

Moore (2003) argues that having investments and saving for the long term are also associated with higher levels of financial knowledge. Mitchell and Lusardi (2015) found that one-third of wealth inequality can be explained by a financial knowledge gap. Furthermore, lower financial knowledge has been linked to a higher tendency to engage in risky financial practices amongst college students. It is thus clear that financial knowledge levels explain variations in financial practices (Robb & Woodyard, 2011).

Grohmann (2018) found a lack of financial knowledge amongst the middle class in Bangkok. This supports the argument that financial knowledge is low in most developing countries, especially in Africa and Asia (Mitchell & Lusardi, 2015). According to Chowa, Despard, and Osei-Akoto (2012), only 8% and 11% of youths in Ghana could correctly answer two questions about savings and loan interest respectively. A lack of financial knowledge has been associated with behaviours that lead to financial mistakes such as over-borrowing, mortgages with a high interest rate, and limited saving and investment (Lusardi, 2008).

A financially literate individual possesses basic knowledge of various key financial concepts, and young adults need this basic financial knowledge and skills, as they are in a position to make important personal financial decisions (Chen & Volpe, 1998). Financial knowledge is likely to have a positive effect on young adults' awareness of money behaviours such as the recording of expenses and a saving attitude (Supanantaroek et al., 2017). According to Letkiewicz and Fox (2014), financial literacy is associated with asset accumulation, an increase in net worth, and saving.

Young black African adults need an understanding of finances in order to become financially stable adults and avoid making poor choices with their money in the future. Without a solid knowledge of finances, young black African adults are at risk of bankruptcy, debt, and financial crises (Braunstein & Welch, 2002). However, despite the importance of understanding financial issues, it appears to be difficult for black Africans to talk openly about money, and especially difficult for parents to talk to their children. This is particularly prevalent when parents consider talking about money as culturally unacceptable (Romo, 2011). Parents are an important source of financial information and can transmit important financial habits to their children by communicating financial information that will equip their children to make prudent financial decisions (Romo, 2011).

#### **4.3.1.1      *Measurement of financial knowledge***

There is much contention about the measurement of financial knowledge in literature. Lusardi and Mitchell (2011) note that, although it is important to measure financial literacy, it is also difficult to then explore the way in which individuals proceed with their financial information and make decisions based on this knowledge. Thus, it is important to determine, not only whether the individual has the necessary information, but also whether the individual uses it, or would use it (Potrich et al., 2016).

Lusardi (2008), a proponent of consistent measurements of financial knowledge in research, used questions related to interest-rate calculation, inflation, and risk diversification. The OECD (2011) argues that such measurements should include simple- and compound interest calculations, time value for money, the impact of inflation on prices, and the impact of inflation on investment returns. The majority of studies reviewed in the present study adopted Lusardi's (2008) measurement, supplemented by those proposed by the OECD (2011), but the researchers added their own measurements. It is thus clear that there is inconsistency in how financial knowledge is measured in research. Table 4.7 provides an overview of the measurements of financial knowledge that were identified from the review of literature in this domain.

**Table 4.7: Measurements of financial knowledge**

Type/Level	Knowledge aspect(s) measured	Source(s)
Economic saving	Interest; inflation	Koh, Mitchell & Rohweder (2018)
Investment	Risk diversification	
Basic financial knowledge	Interest rates; inflation; diversification; the value of money in time; simple and compound interest; tax rates; mutual funds; investment; tax offset; matching contributions; cash flow management; sales discount	Hanson & Olson (2018); Van Rooij, Lusardi & Alessie (2011); Lusardi (2015); Potrich et al. (2016); Henager & Mauldin (2015); Mimura, Koonce, Plunkett & Pleskus (2015); Clark, Lusardi & Mitchell (2014); Chen & Volpe (1998); Lusardi & Mitchell (2009); Lusardi & Tufano (2009); Loke (2015); Klapper, Lusardi & Panos (2013)
Advanced financial knowledge	Markets; risk; return; complex financial instruments (shares, stocks, and mutual funds)	
Sophisticated financial knowledge	Risk diversification; mutual funds; debt repayments; investments; financial markets	Chen & Volpe (1998); Lusardi & Mitchell (2009); Lusardi & Tufano (2009); Loke (2015)
Objective financial knowledge	Interest; inflation; bond price; mortgage; portfolio; money management; credit; saving; stocks; basic concepts of personal finance	Fan & Chatterjee (2019); Kim, Anderson & Seay (2019); Tang & Baker (2016); Lusardi & Mitchell (2011); Zhu (2018); Serido et al. (2013); Shim et al. (2010); Xiao et al. (2011); Mohamed (2017)
Subjective financial knowledge	Financial education; personal finances and money management concepts and practices	
Basic financial concepts	Interest; inflation; risk diversification; tax rates	Mendes-Da-Silva, Nakamura & Moraes (2012)
Perceived financial knowledge	Comfortable with financial management	Henager & Mauldin (2015)
Not noted	Inflation; interest rates; value of money over time; risk; return; diversification; stock market; credit; government securities; income; money; management; savings and investments; spending and credit; financial concepts; financial institutions; financial regulations; financial markets; complex instruments; monthly repayments	Potrich et al. (2015); Grohmann & Menkhoff (2015); Lucey (2005); Mandell (2008); Sohn et al. (2012); Nanziri & Leibbrandt (2018); Bellofatto, D'Hondt & De Winne (2018); Grohmann, Kluhs & Menkhoff (2018); Gathergood (2012); Arceo-Gomez & Villagomez (2017); Letkiewicz & Fox (2014); Grohmann (2018)
Big 5 financial concepts	Compounding; inflation; diversification; mortgage; bond pricing	Anderson, Baker & Robinson (2017)
Numeracy	Simple interest; percentage; division; compound interest	French & McKillop (2016)

**Table 4.7 (Cont.): Measurements of financial knowledge**

Personal finance knowledge	Superannuation; compound interest; tax benefits; bank fees	Cull & Whitton (2011)
Personal finances	Financial planning; asset liquidity; net worth calculation; spending/saving patterns; apartment leasing cost; computation of interest	Mahapatra et al. (2016)
Savings and borrowings	Certificate of deposit terms; consumer credit report sources; checking account overdrafts; creditworthiness; loan co-sign consequences	
Insurance planning	Auto insurance calculation; reason to buy insurance; health insurance characteristics; homeowners' insurance characteristics; term insurance characteristics	
Investment planning	Interest rate changes; treasury bond price; high risk–return; investment suitability; mutual fund investment characteristics; return on mutual fund investment; investment diversification; retirement benefit of early investment	
Basic literacy	Numeracy; interest compounding; inflation; time value of money; money illusion	Kaur et al. (2015)
Advanced literacy	Function of stock market; stock ownership; investment in mutual funds; buying bonds; security providing high returns; asset displaying highest fluctuations; diversification; selling of bonds; comparison of stocks; interest rate	

Source: Author's own compilation

The present study measured the financial knowledge of young black African adults through their knowledge of basic financial concepts, saving for retirement, risk and return, and compound interest, as these are commonly used in literature.

#### **4.3.2 Financial Attitude**

An attitude is the evaluation of ideas, event, objects, or people. An attitude aids understanding and predicting the behaviour of people in different situations. Attitudes do not directly determine behaviour; rather, they influence behavioural intentions, which, in turn, shape individuals' actions (Ramalho & Forte, 2019). Attitude has three main components, namely cognitive (beliefs or ideas), affective (feelings), and conative (behaviours) (Schrader & Lawless, 2004).

The process of becoming financially literate is long and complex, and requires a combination of financial knowledge, skills, and attitude. Financial knowledge and skills are not enough; young adults' attitude is also important, because they must demonstrate willingness to apply knowledge and skills to discharge their financial obligations (FSA, 2005). Thus, even if individuals have sufficient knowledge and skills to behave in a certain way, their attitude will influence their decision whether to act accordingly. Financial attitude refers to one's beliefs and values related to various personal finance concepts, such as whether one believes it is important to save money. Therefore, financial attitude is deemed an important element of financial literacy (OECD, 2016).

According to Shockey (2002), financial attitude is a combination of concepts, information, and emotions about learning, which results in readiness to act. Financial attitude is established through economic and non-economic beliefs held by the decision-maker regarding the outcome of a certain behaviour; therefore, beliefs are also a key factor in the personal decision-making process (Ajzen, 1991).

Young adults may display either positive or negative attitudes towards their current financial situation, money, and credit. Studies have found that individuals being positive about the current state of their finances is linked with better financial outcomes, because the individuals will put in more effort to remedy the situation and act positively towards money. However, a negative attitude towards credit is associated with lower credit card debt (Robb & Woodyard, 2011).

Money attitudes play a prominent role in financial attitudes, because money fulfils most people's esteem needs, due to its symbolic meaning of status and success (Maslow, 1943). Money is a prominent feature of modern society and has been established as a powerful motivator of behaviour (Hanley & Wilhelm, 1992). Physical money itself holds little value. It is just a means of exchange, but, for a great number of people, the emotional and psychological value of money far exceeds its relative economic value. For example, Engelberg and Sjoberg (2006) assert that money, for some individuals, is an emotional sign of worth. Thus, people view and relate to money differently, and its value and meaning differs from one person to the next. People's money attitudes are a summary of their life experiences, acquired through primary and secondary socialisation, such as parents' income, education, social class, beliefs, their parents' child-rearing practices, and their parents' monetary habits (Tang & Gilbert, 1995). Young adults should display positive attitudes towards money, credit, budgeting, saving, insurance, and tracking monthly expenses as is aligned to good general money management (Robb & Woodyard, 2011).

#### **4.3.2.1      *Measurement of financial attitude***

The majority of the studies reviewed measured financial attitude according to money attitudes and money management. The terms *money management* and *financial management* are used interchangeably in the studies reviewed, although the measurements applied are different. This is not an exhaustive review of literature, as the focus was mainly on studies of financial attitudes of young adults, which were mainly college and university students. Table 4.8 indicates the measurements used in the earlier studies reviewed.

**Table 4.8: Measurements of financial attitude**

Type/Level	Aspect(s) measured	Source(s)
Money attitude	Financial planning; conscientiousness (in saving and spending); affective component (motivator, good and evil); cognitive component (achievement, respect, and freedom/power); avoidance; rewards for effort; behavioural component (budget); power–prestige (status and power); distrust (suspicious and doubtful); anxiety (anxious about money); retention; propensity to save; propensity to consume; interest in financial issues; intuitive decisions; precautionary saving; materialistic; fatalistic	Agnew et al. (2018); Sohn et al. (2012); Tang (1992); Monteiro, Penalzoa, Pinto, Coria & Calderon (2015); Ng, Tam & Shu (2011); Tsui-Yii & Sheng-Chen (2014); OECD (2011); Funfgeld & Wang (2009); Paluri & Mehra (2016); Henager & Mauldin (2015); Jorgensen et al. (2017); Albeerdy & Gharleghi (2015)
Financial management	Personal credit; planned consumption; investment; saving; tracking monthly expenses; spending within a budget; saving regularly; learning about money management; paying with credit card balances in full each month; insurance; general money management; budgeting; financial skills; debt and credit; regularly investing for long-term financial goals; free spending	Potrich et al. (2016); Zhu (2018); Serido et al. (2013); Shim et al. (2010); Kim & Torquati (2019); Xiao et al. (2011); Potrich et al. (2015)
Loan stress	Examine loan stress; Being worried about paying off loan debt	Fan & Chatterjee (2019)
Current financial situation	Worried about financial status	Breitbach & Walstad (2016)
Attitude towards saving money	Is it good/bad to save money? Is it smart/stupid to save? Should/should not a person save?	Te'eni-Harari (2016)
Money management	Perception of their ability to manage money; financial worry	Kim & Chatterjee (2013)
Attitude towards financial planning	Savings and borrowings; insurance; investment	Mahapatra et al. (2016)
Saving attitude	Views about saving	Zhu, Yu & Chou (2019)

Source: Author's own compilation

Therefore, based on the reviewed measurements of financial attitude, the present study measured the financial attitude of young black African adults through their attitude towards their current financial situation, spending and credit, as these are commonly used in literature.

### **4.3.3 Financial Behaviour**

Traditional finance theories argue that individuals are rational and make considered and rational financial decisions when investing (Kahn & Rudd, 1999; Ritter, 2003; De Bondt et al., 2008). Behavioural finance introduced psychological effects on individuals' financial behaviour, with research showing that finance practitioners and consultants may struggle with human misperceptions, preferences for the present circumstances, and behaviour that may seem irrational in setting up structures for better decision-making and maintenance of virtuous behaviour patterns (Hunton, McEwen & Bhattacharjee, 2001; De Bondt et al., 2008; Muradoglu & Harvey, 2012; Duxbury, 2015; Raue, D'Ambrosio & Coughlin, 2020). Thus, financial behaviour is subject to human behaviour, which is not always rational. Moreover, individuals differ, and are therefore likely to behave differently in any given situation (Muradoglu & Harvey, 2012).

According to Xiao (2008), financial behaviour is a human behaviour that is related to money management. Financial behaviour refers to individual financial outcomes that are observable and manifest through two interrelated behaviour types. The first is a pattern of actions over time, such as earning, saving, spending, and gifting. The second type of financial behaviour is actions related to important financial turning points and decision-making. These actions are thus related to events, rather than immediate financial transactions, e.g., setting up a retirement savings account (Gudmunson & Danes, 2011).

Financial behaviour is the process of managing financial resources in the areas of money management, credit management, retirement planning, and financial planning, and includes the design, implementation, and evaluation of finances. (Parrotta & Johnson, 1998; Danes & Yang, 2014). Saving behaviour is necessary to accumulate wealth, protect young adults from financial crises, and to increase their economic well-being. Individuals who worry about debt repayment and their ability to deal with financial emergencies are associated with lower levels of savings, financial literacy,

and, ultimately, lower financial well-being. Debt reduction is associated with higher levels of saving and financial well-being (Danes & Yang, 2014). Mayer, Zick, and Marsden (2011) found that calculating retirement needs may result in higher retirement savings.

Financial behaviour appears to have consequences not only for individuals' finances, but also their health. Nelson, Lust, Story, and Ehlinger (2008) argue that risky credit behaviour is associated with other unhealthy behaviours, such as a poor diet, abusing drugs and alcohol, engaging in unsafe sex, and driving recklessly. Financial stressors such as debts and income shocks have been associated with negative financial behaviours (Fan, 2017). Moreover, financial stressors trigger mental stress, affecting individuals' well-being. Financial stressors are caused by undesirable financial behaviours such as late debt payment and lack of an emergency fund and retirement savings (Fan, 2017). Prudent borrowing practices increase life satisfaction and sense of well-being in several life domains, such as academic performance, physical health, and mental health (Xiao, Tang & Shim, 2009).

#### **4.3.3.1 Measurement of financial behaviour**

Financial behaviour can be measured on various dimensions. According to Schweichler (2013), financial behaviour is a multi-faceted construct that can include any behaviour within the diverse domains of the financial market, including cash management, credit management, capital accumulation, and general management of personal finances. The studies reviewed in the present study seem to confirm that financial behaviour is multi-faceted; some categories were termed *good* and *bad* financial behaviour, while others used the terms *healthy*, *better* and *positive* or *negative*, but the researchers used the same measurements. Others categorised financial behaviour as short-term or long-term behaviours. In these studies, financial behaviour was investigated through savings, budgeting, spending, credit, and money-management behaviours. Table 4.9 shows the dimensions measured in investigating financial behaviour.

**Table 4.9: Measurements of financial behaviour**

<b>Type/Level</b>	<b>Dimensions</b>	<b>Source(s)</b>
Saving and planning behaviour	Long-term and short-term planning; savings and investments; diversification; emergency funds; saving for long-term financial goals; increase savings; savings amount; retirement savings; invest to accumulate retirement savings; saving regularly; propensity to save	Henager & Cude (2019); O'Neill & Xiao (2012); Tang & Baker (2016); Zhu (2018); Serido et al. (2013); Henager & Mauldin (2015); Te'eni-Harari (2016); Bucciol & Veronesi (2014)
Good financial behaviour	Make plans on how to use your money; write down where money is spent; evaluate spending on a regular basis; use a written budget	Xiao, Sorhaindo & Garman (2006)
Positive financial behaviours	Tracking monthly expenses; spending within a budget; saving money each month for the future; reduced personal debts; cutting down on living expenses; following budget or spending plan; developed a plan for financial future; started or increased savings; contributed to employer's retirement plan; 'I determine how much I will need to live comfortably in retirement'; participated in and contributed money to pre-tax dependent care or healthcare programme; contacted a financial planner	Xiao et al. (2006); Loke (2015); Ranta & Salmela-Aro (2018)
Short-term financial behaviours	Emergency funds; spending; overdrafts; budgeting	Kim et al. (2019)
Long-term financial behaviours	Retirement planning (amount needed); retirement account (ownership); investments (ownership); financial goals	
Budgeting behaviour	Written plan for spending; written plan for saving; written financial goals; calculation of net worth annually; keeping financial records; spending within a budget	O'Neill & Xiao (2012); Zhu (2018); Serido et al. (2013); Jorgensen et al. (2017)
Spending behaviour	Pay credit card bills in full; enough money each month to pay debts; spend less than 20% on servicing debt; impulse purchases; price comparison; controlling expenses each month; 'I spend less than my income'; 'I buy things when I cannot really afford them'	
Investment	Investment in risky assets	Tang & Baker (2016)
Credit management	Credit card debt	Tang & Baker (2016)
Debt management	Having a credit card; total card debt	Kim & Chatterjee (2013)
Money management	Budgeting; ability to organise bills; saving regularly; tracking expenditures; financial planning; paying credit card bills in full; full financial responsibility	French & McKillop (2016); Fulk & White (2018); Kim & Chatterjee (2013)
Behaviour in personal finances	Savings; loans; insurance; investment	Chen & Volpe (1998); Potrich et al. (2015)

**Table 4.9 (Cont.): Measurements of financial behaviour**

Financial management	Personal credit; planned consumption; investment; savings; cash management; credit management; capital accumulation; general management, saving management	Potrich et al. (2016); Jorgensen, Rappleyea, Schweichler, Fang & Moran (2017); Mohamed (2017)
Healthy financial behaviour	Tracked monthly expenses; spent within the budget; saved money each month for the future; invested for long-term financial goals	Shim et al. (2010); Loke (2015)
Better financial behaviour	I live from paycheck to paycheck; 'I write down where money is spent'; 'I estimate household net worth'	Kim & Torquati (2019)
Loan repayment	Making late loan debt repayment	Fan & Chatterjee (2019)
Risky credit behaviour	Risky paying behaviour; risky borrowing behaviour	Xiao et al. (2011)
Financial practices	Money management habits; presence of financial accounts; anticipation about savings in the future	Mimura, Koonce, Plunkett & Pleskus (2015)
Financial planning	Reviews financial portfolio; financial plan for retirement; good at calculating long-term investments; pension scheme is sufficient to provide for retirement	Rousseau & Venter (2016)
Financial executing	Worry about finances; 'Come end of the month, I seldom have money left over'; borrow money from others to make ends meet; saving difficulty; financial decisions	
Financial vigilance	Investment products on the market; read financial reports; listen regularly to financial programmes on radio and television; alert to financial matters	
Financial discipline	Spending patterns; budgeting; savings programme; self-discipline	
Financial control	Saving and borrowing; financial awareness; credit management; financial decisions	
Outsourcing financial services	Personal future planning and investment by experts; use experts to manage one's investment portfolios; managing own financial matters	Rousseau & Venter (2016)
Behaviour characteristics	Impulsive spender; heavy discounter; confused by finance	Gathergood (2012)

Source: Author's own compilation

#### 4.3.4 *Financial decision-making*

The Standard Model of Decision-Making was based on the belief that human beings are rational agents (Sahi, 2012). However, behavioural finance theories hold that human cognitive abilities are not infinite; individuals have limited computational and conceptual skills and flawed memories (Jureviciene & Ivanova, 2013; Nigam, Srivastava & Banwet, 2018). Behavioural finance theories introduced psychological and sociological factors that affect financial decision-making, known as “behavioural finance biases” (De Bondt et al., 2008), such as representativeness, anchoring, availability bias, mental accounting, myopic loss aversion, regret aversion, overconfidence, disposition effect, locus of control, and illusion of control to supplement traditional assumptions in this domain (Fellner, 2009; Grable, Park & Joo, 2009; De Bondt, Forbes, Hamalainen & Muradoglu, 2010; Mishra, 2016). Individuals have been noted to suffer from behavioural finance biases that affect their decision-making (Leeper, 2015). Table 4.10 lists behavioural finance biases proposed by Dickason, Nel, and Ferreira (2017).

**Table 4.10: Behavioural finance biases**

<b>Biases</b>	<b>Description</b>
Representativeness	Investors base investment decisions on stereotypes. They assume that future returns will be the same as past returns, without considering the reasons for good historical returns.
Overconfidence	Investors believe they are smarter than other investors in terms of investment decisions. Overconfidence is the result when investors amplify their capabilities and ignore external factors that could result in outcome variability. Overconfident investors often overestimate their abilities and underestimate uncertainty.
Anchoring	Investors anchor themselves in a certain position. They fail to do enough market research, cling to one specific piece of information, and make the decision. These investors are stagnant and refuse to adjust to a changing environment.
Gambler’s fallacy	Incorrect estimations and predictions are made based on a set of events known as “gambler’s fallacy”. In this case, investors believe that, if something happened recently in the market, the probability of the same occurrence increases, and probability of the opposite occurrence decreases.

**Table 4.10 (Cont.): Behavioural finance biases**

Availability bias	Investors overestimate the probability of an event occurrence, based on the most readily available information while making decisions. Availability bias causes investors to overreact to market results/movements, whether positive or negative.
Loss aversion	Loss aversion is based on prior gains and losses. Thus, a loss experienced after a previous gain is less painful than usual, because the previous gains function as a cover for the latest loss. People tend to be more sensitive to losses than gains, specifically where losses occur after previous losses, as the situation evolves and becomes more painful than usual.
Regret aversion	Regret is an emotion experienced by investors when losses are realised due to erroneous choices. Investors attempt to avoid the regret emotion, as it is an uncomfortable emotion.
Mental accounting	Investors tend to assign different values to money obtained from various sources. They consider it better to pay off expensive loans than to receive a low rate of return on an investment. Also, money received in the form of gifts is regarded as cheap and is easily spent.
Self-control	Through exercising self-control, investments can be protected, and losses minimised. Investors are open to temptations and should exercise self-control on a continuous basis.

Source: Dickason, Nel & Ferreira (2017)

As shown in Table 4.10, financial behaviour biases impact investors' decision-making. Thus, behavioural biases are useful in explaining financial decision-making, as they explain how people act on information they receive and the prevailing circumstances when they make investment decisions (Mishra, 2016).

Financial decision-making is influenced by locus of control, which refers to how people view the world. This affects their beliefs and shapes their perception (Grable et al., 2009). Two people who are given the same set of financial information would make different financial decisions based on whether their locus of control is external or internal. Individuals with a strong external locus of control view external forces and events as the main influencers of their actions, decisions, and behaviours. They often believe that fate, luck, and chance are the main contributors in life events (Grable et al., 2009). For example, excessive gamblers have an external locus of control, because they think they will make a fortune even though they are getting deeper into debt. These individuals are more likely to be impulsive; they often make unnecessary

expenditures and attribute the blame to someone else. For example, they will buy something and say they would not have bought it had it not been on special; they may even blame the salesperson. In contrast, individuals with an internal locus of control often believe that they have the skills, abilities, and knowledge to control outcomes. They are goal-driven and are more likely to show responsible financial behaviours (Grable et al., 2009). However, this matter seems to be more complicated than it appears. There is growing debate around subjective and objective financial knowledge, and both contribute to the shaping of financial decision-making skills. Individuals with a strong internal locus of control may hold the erroneous belief that they possess the necessary knowledge, skills, and abilities to conclude a particular financial transaction, because they are overconfident regarding their financial matters.

In the pursuit of understanding consumers' decisions, researchers employed three approaches: psychographic or lifestyle, consumer typology, and consumer characteristics. The psychographic or lifestyle approach focuses on consumers' activities, interests, and opinions, in order to create an understanding of consumers' personalities and predict consumer behaviour. The consumer typology approach defines specific aspects of consumers' shopping motives and attitudes by classifying consumers according to types. The consumer characteristics approach focuses on the cognitive and affective orientations that relate specifically to consumer decision-making (Kamaruddin & Mokhlis, 2003). The argument is that all consumers approach financial decision-making with a certain decision-making style (Kamaruddin & Mokhlis, 2003). There are three types of decision-making: desirable decision-making — where consumers are conscious of quality and price; undesirable decision-making — where consumers are confused by too much choice and make impulsive decisions; and social motivation — where consumers are conscious of brand, novelty, fashion, or recreation.

#### **4.3.4.1                      *Measurement of financial decision-making***

Table 4.11 indicates the dimensions measured to determine financial decision-making in the studies reviewed.

**Table 4.11: Measurement of financial decision-making**

<b>Factor</b>	<b>Dimensions</b>	<b>Source(s)</b>
Risk aversion	Risk; savings; fixed deposits; government mutual funds; government bonds	Nga & Yien (2013)
Cognitive bias	Framing; selection; overconfidence	
Investment decision-making	Savings; retirement; decision-maker; familiarity; satisfaction; opinion; demographics	Anderson, Baker & Robinson (2017); Davar & Gill (2009)
Behavioural bias	Non-conscious risk; decisions based on intuition; desire to frequently change the portfolio; conscious risk; investment in an unprofitable project	Jureviciene & Ivanova (2013)
Behavioural finance biases	Representativeness; overconfidence; anchoring; gambler's fallacy; availability bias; loss aversion; regret aversion; mental accounting; self-control	Dickason, Nel & Ferreira (2017)
Loss position to satisfaction	Perceived management satisfaction; perceived client satisfaction; self-satisfaction	Hunton, McEwen & Bhattacharjee (2001)
Loss position to motivation	Loss position; motivation level; risky choices	
Risky assets	Efficient portfolio; riskless asset	Neugebauer (2008)
Portfolio diversification	Attractive assets in isolation; unattractive for portfolio diversification	Baltussen & Post (2011)
Investors' portfolio decisions	Covariation and portfolio risk	Hedesstrom, Svedsater & Garling (2006)
Illusion of control	Risky assets, riskless assets; ambiguity aversion; myopic loss aversion	Fellner (2009); Charness & Gneezy (2010)

**Table 4.11 (Cont.): Measurement of financial decision-making**

Home bias on portfolio choice	Overly optimistic; beliefs about future prospects of the firm; familiarity bias; firm identity; geographic location	French & Poterba (1991); Huberman (2001); Kilka & Weber (2000); Ackert, Church, Tompkins & Zhang (2005)
Adaptive behaviour and return chasing	Multi-period investment; risky assets; diversified fund	Benzion, Erev, Haruvy & Shavit (2010)
Team portfolio choice	Buy/sell decisions; high-risk and low-risk stocks; risk aversion; loss aversion	Bogan, Just & Dev (2013)
Asset allocation	Shares; bonds; risk-free assets	Canner, Mankiw & Weil (1997); Duxbury, Hudson, Keasey & Summers (2005)
Decision problem framing	Information horizon; evaluation frequency; decision frequency	Hardin & Looney (2012)

Source: Author's own compilation

As indicated in Table 4.11, most of the studies examined financial decision-making with regard to investment decisions. There is a lack of research on financial decision-making with regard to day-to-day financial decisions, which gap was addressed in the current study.

#### **4.4 THE LINK BETWEEN FINANCIAL KNOWLEDGE, ATTITUDE, BEHAVIOUR, AND DECISION-MAKING**

Literature indicates associations between financial knowledge, attitude, behaviour, and decision-making. Serido et al. (2013) explain that financial knowledge may contribute to financial behaviours by cultivating a positive attitude towards sound financial practices. Financial knowledge has been associated with positive financial behaviours such as having a cheque account, paying bills on time, tracking expenses, having a savings account, and having an emergency fund (Hilgert, Horgath & Beverly, 2003). Thus, individuals' financial knowledge can be expected to influence their financial attitude, which, in turn, influences their financial decision-making. In this regard, Shim et al. (2009) posit that, when young adults possess adequate knowledge of financial matters, they demonstrate greater perceived control over their financial behaviour and a more positive attitude towards their finances. In accordance, Borden, Lee, Serido, and Collins (2008) found that financial knowledge has a positive effect on students' financial attitudes and behavioural intentions.

In examining the factors that shape the behaviours of young adults, Shim et al. (2010) found that financial knowledge is a significant predictor of financial attitude, which, in turn, contributes to financial behaviours. Jorgensen and Salva (2010) examined the factors associated with the financial behaviours of college students and found a significant association between financial knowledge and financial attitude. Furthermore, they found that financial attitude mediates the association between financial knowledge and financial behaviour. Perceived financial knowledge has been linked to financial behaviour (Henager & Mauldin, 2015). Van Rooij et al. (2011) found that individuals with higher levels of confidence in their financial knowledge have a higher propensity to plan and save for retirement. Fan and Chatterjee (2019) assert that financial knowledge and practice have a significant influence on financial behaviours.

Financial knowledge appears to be the cornerstone of financial literacy and, ultimately, financial well-being. However, financial knowledge alone is not sufficient for the effective management of finances. For individuals with financial knowledge to be considered

financially literate, they need the ability and confidence to implement their knowledge when making financial decisions (Potrich et al., 2016; Norvilitis & MacLean, 2010). Therefore, competence in one dimension of financial literacy does not necessarily translate into financial literacy; competence in all dimensions is required.

Literature posits interrelationships between financial knowledge, attitude, behaviour, and decision-making. Potrich et al. (2016) argue that financial knowledge and attitude precede financial behaviour. Thus, a meaningful change in financial behaviour is preceded by modifications in financial knowledge and attitude. Financial knowledge has an influence on financial behaviour and attitude, and behaviour and attitude are correlated. It is argued that attitude towards money and finance affects behaviour regarding saving, borrowing, and risk-taking (Agarwalla, Barua, Jacob & Varna, 2015). Thus, attitude is a predictor of behaviour (Potrich et al., 2016).

Ramalho and Forte (2019) found that actual financial knowledge is positively correlated with perceived financial knowledge, but not with financial attitude. They further found that financial behaviour is not correlated with financial attitude. Loke (2015) posits that financial knowledge promotes responsible and positive financial behaviour but does not play a significant role in preventing an individual from getting into financial distress. This suggests that financial knowledge empowers individuals with knowledge to behave in a certain manner; however, the actual financial behaviour is a subject of self-control. This seems to indicate complex interrelations between the dimensions of financial literacy.

#### **4.5 THE IMPORTANCE OF FINANCIAL LITERACY**

From the literature reviewed, there seems to be increasing concern around the world about the low levels of financial literacy amongst young adults. Low financial literacy was found to be one of the factors that contributed to the recent global financial crisis, through many individuals making poor financial decisions (Arceo-Gomez & Villagomez, 2017). Financial literacy has far-reaching implications for the economy of a country; therefore, policymakers must make concerted efforts to improve the youth's financial literacy (Lusardi, 2015).

Financial socialisation has been noted to occur through agents such as family, peers, schools, and friends as one of the mechanisms, and this is where most financial habits originate (Shim et al., 2015). Countries in Europe and the USA have included financial literacy in their high-school curriculum in order to address low levels of financial literacy (Arceo-Gomez & Villagomez, 2017). However, most other countries are still lagging behind in such efforts, particularly African countries (Arceo-Gomez & Villagomez, 2017). In South Africa, financial literacy is not included in the primary-school curriculum. Considering the injustices of the past, where black people were excluded from the mainstream economy and financial activities, it is reasonable to expect that government would take the initiative to include financial literacy in curricula and even extend it to adult education.

Arceo-Gomez and Villagomez (2017) argue that the root causes of low levels of financial literacy amongst young adults are behaviours learned from parents through financial socialisation from early childhood, and that these behaviours last into adulthood. This view has not been sufficiently explored in developing countries and rural and low-income areas. Financial literacy is important, not only at an individual level, but also at the global level, as investments and borrowing have consequences for the stability of a country's economy (Jappelli, 2010). The recent financial crisis has just indicated that and support this argument that financial literacy is not just from an individual perspective but also from economic perspective. The OECD (2005) argues that financial literacy contributes to economic growth, helps to reduce poverty, and attenuates the volatility of financial markets. Modigliani and Cohen (1979) assert that, if investors in the USA in the 1970s had received financial education in matters relating to inflation, it may have helped to reduce investment mistakes. Financial literacy also results in less reliance on welfare payments.

Jappelli (2010) compares financial literacy to a human capital production function. The accumulation of financial knowledge, combined with ability and effort, is imperative to the improvement of individuals' financial condition and to ensure their sustained financial well-being (Jappelli, 2010). Grohmann (2018) asserts that financial literacy has several benefits. Financially literate individuals are more likely to own assets other than a savings

account and are also more likely to have a fixed-deposit account. They are less likely to own life insurance, which gives notoriously low returns. Additionally, they are more likely to use the wide range of financial services offered to them, and they use credit cards in a more informed way. They are also more likely to know the interest rate on credit cards, and to have less difficulty paying off their credit card debt.

#### **4.6 EARLIER EMPIRICAL STUDIES CONDUCTED AROUND THE WORLD**

Several studies on young adults' financial literacy were focused on the level of financial literacy of college students (Flores, 2014; Breitbach & Walstad, 2016; Arceo-Gomez & Villagomez, 2017), and found evidence of a lack of financial knowledge and an inability to manage finances properly. This section discusses studies on young adults' financial literacy conducted outside of South Africa.

Cameron, Calderwood, Cox, Lim, and Yamaoka (2013) conducted a comparative study on financial literacy amongst 1 432 students in New Zealand, Japan, and the USA, in which they analysed the data using aggregate regression statistics. The results indicated that financial literacy scores of students in USA were the same as those of students in New Zealand, but that Japanese students scored the highest. However, the study found that the overall level of financial literacy of the students was low in all three countries. Jang, Hahn, and Park (2014) compared the level of financial literacy of 1 467 students in Korea and the USA using the Financial Fitness for Life (FFFL) test. The results showed that the Korean students' mean score fell below that of the students in the USA. The authors posit that this was because the students in the USA had completed the FFFL programme. This study therefore showed the importance of financial education.

In the USA, Danes and Hira (1987) analysed the money-management knowledge of 716 college students using descriptive statistics and regression analysis. The results showed low levels of financial knowledge regarding credit cards and insurance, as well as a lack of financial management. A study by Chen and Volpe (1998) examined financial literacy amongst 924 college students in the USA using analysis of variance (ANOVA), logistic regression, and descriptive statistics. The study found that the college students had low levels of personal finance knowledge, which had a negative impact on their ability to make

sound financial decisions. In this regard, Lyons and Hunt (2003) argue that the majority of community college students get their first credit card in their first year of college, and their research showed that many misuse and mismanage their credit cards. A study by Lyons (2004) sampled college students to determine their financial risk status. The study found that students are at a high risk of indebtedness through an increasing accumulation of credit card debt and poor money-management behaviours.

Beverly and Burkhatler (2005) investigated financial literacy and practices of youths in the USA through a review of previous studies and concluded that these youths have low levels of financial literacy. The study also showed that the majority of youths are not budgeting, and that they are using credit carelessly. Jorgensen (2007) reported low scores on financial knowledge, attitude, and behaviour of college students. Jorgensen and Salva (2010) also indicated inadequate financial knowledge amongst young adults.

A study by Lusardi et al. (2010) of 7 417 young adults in the USA to determine their levels of financial literacy used the National Longitudinal Survey of Youth of 1997, and the data were analysed using multivariate analysis and descriptive statistics. The results showed low financial literacy amongst these young adults. Specifically, the results revealed that young adults lack fundamental knowledge of inflation, interest rates, and risk diversification.

Flores (2014) investigated the financial literacy of 117 first-generation college students in the USA. The results showed a low score on financial literacy. Breitbach and Walstad (2016) examined financial literacy and financial behaviour amongst 6 865 young adults aged 18 to 34 in the USA using descriptive statistics and t-tests. The results showed a low level of financial literacy. Arceo-Gomez and Villagomez (2017) investigated financial literacy amongst 941 students in Mexico using descriptive statistics and regression analysis. This study also showed low levels of financial literacy amongst the students. Specifically, the results indicated that students lack basic knowledge and understanding of risk diversification and of the association between risks and returns (Arceo-Gomez & Villagomez, 2017).

Lahav et al. (2017) studied 270 Israeli students' investment and financial decisions with regard to two investment options. The data were analysed using z-score tests, logistic

regression, and ANOVA. The results revealed that 60% of the students had chosen the correct investment option. Ergun (2018) examined the financial literacy of 409 university students in Estonia, Germany, Italy, Romania, Netherlands, Russia, Turkey, and Poland using logistic regression analysis. The results showed an overall mean score of 72.2%, with Polish students with business subjects and parents with a high income showing more financial knowledge.

A study by Kaur et al. (2015) investigated financial literacy amongst university students in India by sampling 110 respondents and using t-tests and ANOVA to analyse the data. The results showed that the levels of financial literacy of students of commerce and management were good. The study also found that demographic variables (i.e., their schooling, family income, and parents' occupation and qualification) had no impact on students' levels of financial literacy.

Sabri et al. (2008) examined financial behaviour and -problems amongst 3 850 college students in Malaysia using t-tests, ANOVA, multiple regression, and bivariate analysis. The results indicated a lack of financial knowledge amongst students with regard to credit, savings, investments, and insurance. Sharma (2015) measured the level of financial literacy amongst young employees of the private sector in the city of Jaipur, India, using descriptive statistics and ANOVA to analyse data. The level of financial literacy was low.

In investigating the level of financial literacy amongst 800 undergraduate- and postgraduate students in Indonesia, Lantara and Kartini (2015) used sample t-tests, regression analysis, and ANOVA. The results showed a low level of financial literacy, with a mean score of 45.39%. The results also indicated that higher scores on financial literacy were associated with students' academic disciplines, education levels, and family income. A study by Sohn et al. (2012) surveyed 1 185 Korean adolescents to explore the association between financial literacy and financial socialisation agents, using regression analysis. The study revealed a low level of financial literacy, with a mean score of 49.8%. Mahapatra et al. (2016) investigated the financial literacy of 425 college students from several colleges in Hyderabad and Secunderabad cities in India, using logistic regression analysis. The mean percentage score (44.33%) showed that the students are not satisfactorily knowledgeable about finances. In this study, the students' financial planning

attitude was found to have a negative influence on their financial literacy (Mahapatra et al., 2016).

Cameron et al. (2014) surveyed young adults in New Zealand to establish their level of financial literacy. The results showed that young adults are not well prepared to make sound and important life-changing financial decisions, due to low levels of financial literacy. A study by Cull and Whitton (2011) sampled 502 Australian university students to determine their financial literacy levels using regression analysis. The results showed low levels of personal financial knowledge. The study further revealed that business students' scores were no better than those of other students; it was even low when compared to students of sciences. This study's results contradicted those of previous studies (Lantara & Kartini, 2015; Ergun, 2018) that indicated that students with commercial and management subjects tend to have higher financial literacy.

Studies were also conducted in sub-Saharan Africa. In Ghana, Opoku (2015) assessed the level of financial literacy of 320 students and found that only 48.7% of students were knowledgeable about personal finance concepts. The results also showed that students lack knowledge in matters of financial planning, overdrafts, and budgeting. Ansong (2011) examined high-school graduates' understanding of financial concepts and their general financial knowledge. The results showed a low level of financial literacy, with an average score of 35.87%.

#### **4.7 EARLIER EMPIRICAL STUDIES CONDUCTED IN SOUTH AFRICA**

Botha (2013) surveyed final-year diploma students in finance and non-finance streams at the University of Johannesburg, and the results showed low levels of financial literacy for both groups. The finance-stream students did perform better than their counterparts, but the difference was not significant. Botha (2013) observed that, overall, the students lacked financial knowledge and a basic understanding of savings and borrowings.

A study by Louw (2009) examined the financial literacy of third-year students at North West University's Potchefstroom Campus. The results indicated that students are not financially proficient, and that they lack financial knowledge mainly in the areas of inflation, interest rates, financial planning, taxation, and banking. The results also

revealed a difference in financial capability at faculty level, with those in economic and management sciences performing better than their counterparts in health sciences.

Symanowitz (2006) examined financial literacy amongst 536 Grade-12 learners from public and private schools in rural and urban areas in South Africa. The results showed low levels of financial literacy. Learners from the two rural areas scored the lowest, with means of 44.1% and 30.3% respectively, averaging 37.2%. Ramavhea et al. (2017) surveyed 300 undergraduate students from a public university in South Africa to investigate their financial literacy. The results showed low levels of financial literacy and a lack of knowledge regarding financial issues.

Louw, Fouche, and Oberholzer (2013) sampled 424 third-year university students and found that they had sound knowledge of financial matters, indicating good general financial literacy. However, the results also showed that the students struggled with questions relating to banking, financial planning, taxation, legal and sundry matters, and investments. Shambare and Rugimbana (2012) surveyed 214 university students in South Africa and found low levels of financial literacy. The results also showed that only 15% of respondents answered the question on investment correctly.

Matemane (2018) surveyed 171 South Africans in Pretoria and Johannesburg. The study found that black South Africans are less financially literate than Coloureds, Indians, and whites. Antoni (2014) sampled 400 respondents from Nelson Mandela Bay. The results showed that black African consumers have low levels of knowledge regarding issues such as bad debt and are more likely than other racial groups to experience financial problems. Finmark Trust (2019) surveyed 4 696 adults in South Africa. The study found that black Africans are struggling to keep up with their debt repayments and are living beyond their means, with little left to save. They are therefore more vulnerable to financial shocks. Opoku (2015) surveyed 320 students to investigate their level of financial literacy. The results showed that young black African adults in low-income and rural areas are financially vulnerable due to increasingly high debt levels, lack of financial knowledge, and poor financial behaviours. A study by Nanziri and Olckers (2019) sampled over 28 000 individuals in 7 300 households in South Africa. The study found that less educated, low-income and blacks respondents displayed low levels of financial literacy.

It is evident from these studies that globally, in both developed and developing countries, young adults' level of financial literacy is low. This is a great concern in developing countries. Literature also reveals racial disparities in financial literacy, with black Africans severely impacted, especially those in low-income and rural areas. Financial literacy has become increasingly important, as the financial world, markets, and institutions have become more complex, coupled with rapid increases in technology and challenging financial systems (Hogarth & Hilgert, 2002). This demands greater financial socialisation to empower young adults to make sound financial decisions.

#### **4.8 SUMMARY**

This chapter focused on financial literacy and discussed the conceptual and operational definitions of financial literacy, the dimensions of financial literacy and their measurements, the relationship between financial knowledge, financial attitudes, financial behaviour, and financial decision-making, earlier empirical studies on financial literacy, and the importance of financial literacy in today's economic climate.

It was shown that financial literacy is defined differently in various studies, and often used interchangeably with *financial knowledge*, *financial education*, and *financial capability* in literature. The OECD (2011) indicates that financial literacy is a combination of the awareness, knowledge, skills, attitude, and behaviours necessary to make good financial decisions. The review further showed that the operational definition of financial literacy was inconsistent amongst the studies reviewed, and that the measurements of financial literacy varied greatly. The OECD (2011) provided a framework of the dimensions of financial literacy, namely financial knowledge, financial attitude, and financial behaviour, which were adopted in the present study. The present study further included the dimension of financial decision-making, as the review showed that sound financial decisions are crucial in achieving financial security and well-being.

There is an association between financial knowledge, financial attitudes, financial behaviour, and financial decisions. Financial knowledge is the cornerstone of financial literacy, because individuals must possess adequate financial knowledge to be able to demonstrate a positive attitude towards finances and practise healthy financial

behaviours. However, financial knowledge alone is not enough; the combination of knowledge, attitude, behaviours, and decision-making is important in achieving financial literacy.

Earlier empirical studies on financial literacy globally indicate low levels of financial literacy amongst young adults. It has been found that young black African adults in developing countries demonstrate lower levels of financial literacy compared to those in developed countries. Moreover, young black African adults in rural and low-income areas suffer worse financial illiteracy. There is evidence that financial socialisation may aid in ameliorating this problem. Parents play an important role in the upbringing of their children, with many children viewing their parents as role models. Therefore, the influence of parents on the financial literacy of their children was deemed worth exploring in the present study. The next chapter discusses the theoretical framework of the study, including how the variables were investigated.

## **CHAPTER 5**

### **CONCEPTUAL FRAMEWORK OF THE STUDY**

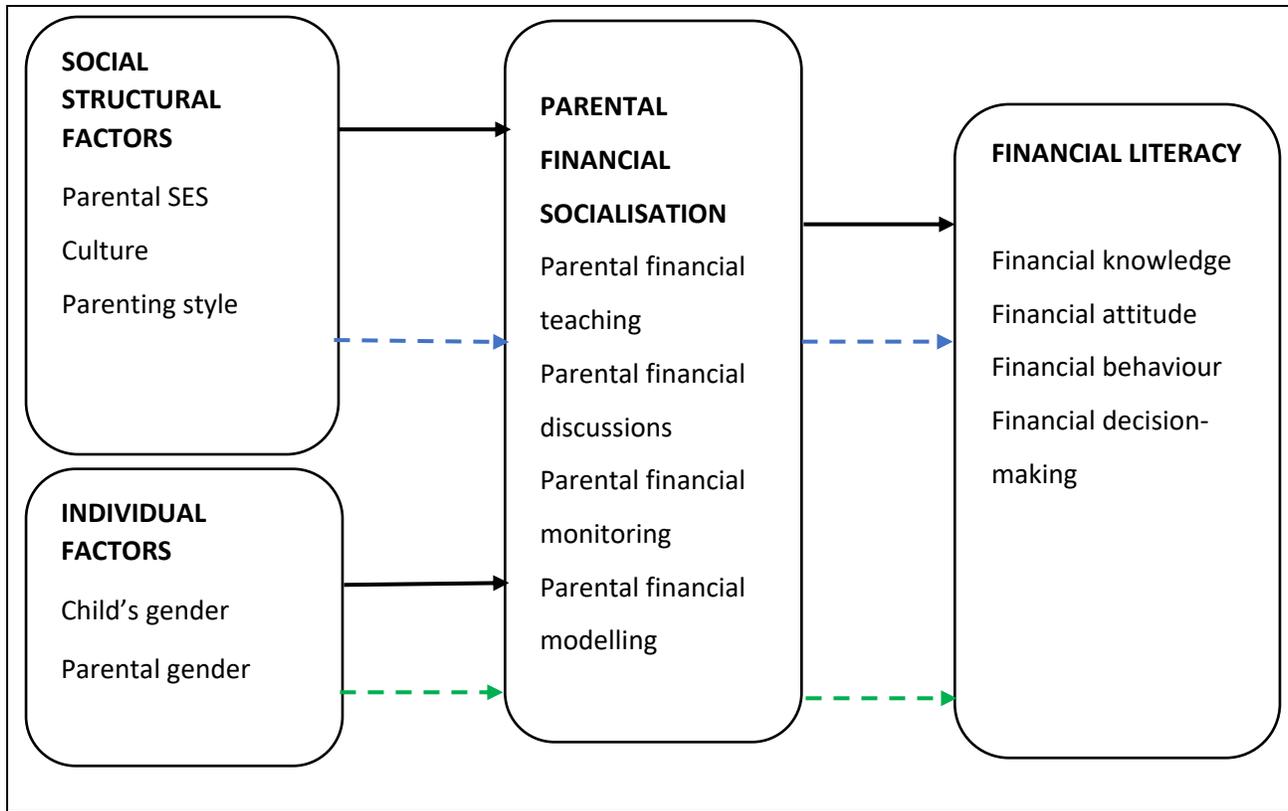
#### **5.1 INTRODUCTION**

Chapter 4 provided an overview of financial literacy literature and highlighted the definition of financial literacy from both a conceptual and an operational perspective. The important dimensions of financial literacy and how these dimensions were measured in previous studies informed the selection and measurement of dimensions in the present study. The dimensions of financial literacy selected for the present study were financial knowledge, financial attitude, financial behaviour, and financial decision-making.

This chapter presents the conceptual framework of the study in four sections. Section 5.2 presents the financial socialisation process. Section 5.3 provides the conceptual model for the study, in line with the research objectives. Section 5.4 presents the description of the variables of the study such as parents, social structural factors, individual factors, parental financial socialisation, and financial literacy, together with the definitions and measurements of each variables. Lastly, Section 5.5 summarises the chapter.

#### **5.2 CONCEPTUAL MODEL FOR THE STUDY**

This section provides the conceptual model for the study, which was based on the theories discussed in Chapter 2 and depicted in Figure 2.2. The conceptual model for the study is shown in Figure 5.19.



**Figure 5.19: Conceptual model of the study**

Source: Author's own compilation

Figure 5.19 indicates the hypothesised relationships between independent variables — *Social structural factors*, *Individual factors*, *Parental financial behaviour*, and *Parental financial socialisation* with the dependent variable — *Financial literacy*. The conceptual model indicates the following relationships: 1) *Social structural factors* with *Parental financial socialisation*, 2) *Parental financial socialisation* with *Financial literacy*, 3) *Parental financial socialisation* with *Financial literacy*, moderated by *Social structural factors*, 4) *Individual factors* with *Parental financial socialisation*, and 5) *Parental financial socialisation* with *Financial literacy*, moderated by *Individual factors*.

The variables and relationships in the conceptual model indicated in Figure 5.19 are discussed in the following sections.

### 5.2.1 Social Structural Factors and Parental Financial Socialisation

Social structural factors, in this study, are the antecedent variables that represent the social environment within which a person's learning takes place. Parental SES, culture, and parenting style have been found to influence parents' financial socialisation of their children (Ameliawati & Setiyani, 2018). These variables are defined below.

**Parental SES:** SES include parents' income, education, and occupation, all of which play a crucial role in their financial socialisation of their children. According to Batten (2015), parents in different social classes are likely to teach their children about money differently. For example, instead of using formal savings accounts opened through official commercial banks, parents with a lower education level tend to use some type of informal saving instrument to teach their children to save, such as piggybanks, savings jars, or simply a drawer. Parents with a higher level of education or who occupy a profession tend to use a formal savings, cheque, or debit account to teach their children about savings and money matters in general. This suggests that the influence of parents on their children from childhood to young adulthood may vary according to social structural factors that may change over time (Kamaruddin & Mokhlis, 2003). For example, SES may change; individuals may move to a higher income level, attain higher qualifications, and/or change their employment status. Any such changes could then subsequently impact the parental financial socialisation process (Kamaruddin & Mokhlis, 2003). Furthermore, Barnett-Verzat and Wolff (2002) found that parents in occupations with a higher status are more likely to give their children a regular and larger allowance.

**Culture:** Ethnic or cultural background may also play a role in children's financial socialisation and their understanding of economic concepts (Kim et al., 2011). Beutler and Dickson (2008) argue that, although children across different racial and ethnic groups may be similar in their developmental understanding of mathematical concepts, there might be differences between groups regarding more complex financial concepts, due to differences in their experienced economic and social conditions. Families that uphold cultural values, beliefs, and norms, often referred as "traditional homes", may socialise male and female children differently. Female children could be the subject of negative

feedback and discrimination due to the notion that male children should be conditioned to take up leadership roles in financial matters and become a breadwinner. Some parents may discourage financial discussions because of the belief that financial matters are not to be discussed with children (Agnew, 2015).

**Parenting style:** Parenting style is an important element of social structural factors in parental financial socialisation, as it may also influence the parent–child relationship and financial interactions (Kim, Yang & Lee, 2015). According to social learning theory, in a family where the father is the sole decision-maker acting on behalf of the family, both male and female children could be socialised to fulfil these roles, based on their observations growing up (Agnew, 2015).

The demanding parental style has a negative effect on adolescent consumer socialisation outcomes, while the other parenting styles have been found to have a positive effect. Fathers with a highly demanding parenting style have been found to negatively influence the effectiveness of consumer education with regard to money management in adolescents' shopping behaviour. This parenting style also undermines the effectiveness of discussions of consumption issues, and the effect of co-shopping on adolescents' consumer competence. Demanding parents are not warm, and their children may be reluctant to approach them for advice. This puts a strain on the parent–child relationship, which, in turn, influences financial socialisation (Kim, Yang & Lee, 2015).

### **5.2.2 Social Structural Factors and Financial Literacy**

Financial literacy has been found to be impacted by parental SES, culture, parenting style, income, parents' education and occupation, and the parent–child relationship. Studies found that individuals' income level has a relatively strong positive association with financial control, meaning that higher-income individuals exercise more financial control (Chen & Volpe, 1998; Buckland, 2010). Furthermore, there is a negative association with keeping track of finances, suggesting that these individuals tend to track their finances less closely than lower-income individuals (Buckland, 2010). The intimation is thus that high-income individuals tend to be reckless with regard to monitoring their expenditure because they believe they have enough money (Lusardi, 2012). A study by Murphy

(2005) found that parental education level is the most significant influence on the level of financial literacy of black college students. Those with parents who were more educated scored higher than those with parents with a low level of education. Individuals with a high occupation status, such as professionals, tend to demonstrate a higher level of financial literacy than those in semi-skilled occupations. People in white-collar occupations have been positively linked with staying informed about finances, more so than those in blue-collar occupations (Gallery & Gallery, 2010).

There seems to be a difference in levels of financial literacy amongst different cultural groups. Brown, Henchoz, and Spycher (2018) found that young adults in a French-speaking region had a lower level of financial literacy than those in a German-speaking region. Hughes (2003) asserts that black people uphold their cultural identity, which could influence financial outcomes and practices amongst the young adults. Fulk and White (2018) found that more white students than black students paid their credit card debt on time. A financial culture may differ from one family to the other within a particular ethnic group. In certain families, financial interactions with children are prohibited, which may later in their lives influence the children's level of financial literacy.

Parenting style and parental relationship are interrelated. Parents with a responsive parenting style mostly have a good relationship with their children, while those with a demanding parenting style generally have a challenging relationship (Kim et al., 2015). Parental relationship in terms of parental discussions to foster financial literacy is likely to be influenced by the parent-child relationship and interaction. Children who relate well to their parents tend to have higher financial literacy. These children are able to manage their allowance; they save a certain amount and donate money.

### **5.2.3 Individual Factors and Parental Financial Socialisation**

Individual factors in parental financial socialisation refer the child's and the parents' characteristics, namely age or life-cycle stage of the child and parents and the child's gender, which may influence the learning process negatively or positively Hayta (2008). In the present study, individual factors are child's gender and parental gender. These variables are defined below.

**Child's gender:** The child's gender has been found to play an important role in parental financial socialisation. Male children are more likely to receive financial teaching. According to Allen (2008), female children and -young adults are more likely to receive consumer-oriented training from their parents. Female adolescents are more likely to participate in family purchase decisions. They are also more likely to engage in overt consumption-related communication with their parents. Agnew et al. (2018) found a gender based differences in financial socialisation of younger children aged 11 and 14 years old. Danes and Haberman (2007) suggest that girls are trained to be financially dependent and to seek safety and security rather than become risk-takers.

**Parental gender:** A parent's gender also plays a role in parental financial socialisation. There is gender bias in the way parents interact with children in financial matters (Agnew et., 2018). Women are more likely to buy groceries and going shopping than men. Thus, women are more likely to be involved in parental financial role modelling than men, as they would take their children to shops. Fathers have different discussions with their sons than with their daughters (Leavell, Tamis-LeMonda, Ruble, Zosuls & Cabrera, 2012). Danes and Haberman (2007) found that fathers are more likely to model financial behaviours than mothers. Further, fathers are more likely to be the household financial expert and mothers to be less involved in financial discussions during a child's formative years (Leavell et., 2012).

#### **5.2.4 Parental Financial Socialisation**

Parental financial socialisation for the purpose of this study consisted of financial teaching, financial monitoring, financial modelling, and financial discussions.

**Financial teaching:** Financial teaching is critical in developing the values, norms, and behaviours that will positively affects young adults' financial well-being (Grohmann, Kouwenberg & Menkhoff, 2015; Van Campenhout, 2015). Batten (2015) indicates that parents often use an allowance to teach their children about money matters. The allowance is used as a mechanism to reward or punish certain behaviours. Parents who explicitly teach their children have a greater influence on their children than parents who

do not (Kim, Chatterjee & Kim, 2012). Studies have also shown that parental financial teaching influences borrowing behaviour. Grinstein-Weiss, Spader, Yeo, Key, and Freeze (2012) assert that greater parental teaching is associated with reduced loan delinquency and foreclosure, as well as with asset accumulation, in young adults. Homan (2016) found that young adults who received the most parental financial teaching have fewer loans than those who were never taught.

**Financial discussions:** Parents influence their children's financial behaviour through discussions about purchasing decisions, money, credit, and related topics. This is a direct form of influence (Allen, 2008), and entails parent-child interactions regarding consumption. Fulk and White (2018) indicate that parental discussions about money have the biggest overall influence on college students' money-management behaviour. These students were found to be more likely to pay their credit card bill on time and in full each month. According to Agnew et al. (2018), more frequent parent-child discussions on financial matters are correlated to more positive financial attitudes.

**Financial monitoring:** Financial monitoring is a direct way of financially socialising children and includes making rules about children's financial behaviours (Allen, 2008; Jorgensen, 2007; Kim & Chatterjee, 2013). The importance of parental monitoring is visible in the development of sensible financial attitudes. For example, Norvilitis and MacLean (2010), in reference to over-indebtedness, found that parental monitoring of children's financial skills is associated with improved financial skills in dealing with debt, which ultimately leads to lower levels of debt.

**Financial modelling:** Parents financially socialise their children through their modelling of consumer behaviour (Allen, 2008). Parental financial socialisation predicts saving behaviour (Hira, Rock & Loibl, 2009). It was also found to influence university students' saving behaviours and economic planning (Thung, Kai, Nie, Chiun & Tsen, 2012). This view is supported by Mohamed (2017), who posits that observing parents' financial behaviour and -interactions at an early age is positively related to young adults' acquisition of financial knowledge. Otto (2009) investigated parents' role in the

development of their children's saving skills during adolescence. The study found that parents' saving example influenced their children's saving skills.

### **5.2.5 Parental Financial Socialisation and Financial Literacy**

Gutierrez and Hershey (2014) found that parental financial socialisation is related to greater financial literacy in adolescent children. Brown and Taylor (2016) argue that early influences have a significant impact on children's saving behaviour in later life. Further, Chowa, Despard, and Osei-Akoto (2012) found that the average amount youth reported to have saved was greater when they reported having received parental financial socialisation. Bucciol and Veronesi (2014) found that parents teaching their children to save increases the likelihood by 16% that the children, when adult, will save 30% of their income. Palaci, Jimenez, and Topa (2017) found that parental financial socialisation predicts children's financial planning for retirement. In the present study, financial literacy was defined as consisting of financial knowledge, financial attitude, financial behaviour, and financial decision-making. These variables are defined below.

***Financial knowledge:*** For the purpose of this study, financial knowledge is all about young black African adult's knowledge about saving and investment, basic financial concepts, risk and return, and compounding interest. Financial knowledge is an important element of financial literacy and is information that is learned overtime and used to make financial decisions (Huang et al., 2013). According to Braunstein and Welch (2002), a deficiency in financial knowledge impacts the day-to-day management of finances and the ability to save money for the long term. Robb and Sharpe (2009) assert that financial knowledge is a significant factor in the credit card decisions of students. They found that students with higher levels of financial knowledge also have significantly higher credit card balances and overall credit balances, compared to those with lower levels of financial knowledge.

***Financial attitude:*** In this study, financial attitude deals with young black African adult's perception towards their financial situation and beliefs about saving, investment, spending and credit. Atkinson and Messy (2012) assert that financial attitude refers to individuals'

opinions or thoughts about their financial behaviour. Robb and Woodyard (2011) found that consumers who are more confident in their own financial knowledge engage in more favourable behaviours. Thus, financial attitude is important in demonstrating desirable financial behaviours that lead to effective management of personal finances.

***Financial behaviour:*** In this study, financial behaviour focuses on young black African adult's saving, spending and borrowing behaviour. Financial behaviour covers cash management, expense management, credit management, and savings management (Danes & Yang, 2014). Individuals' financial behaviour is also displayed in their saving behaviour. Examples of undesirable financial behaviour are spending too much on products and services, impulsive use of credit, running out of cash, having no savings for emergencies, and being unable to repay monthly debt instalments. Young adults in rural and low-income areas in South Africa seem to be less concerned about their spending patterns and habits (Struwig, Roberts & Gordon, 2013).

***Financial decision-making:*** In the present study, financial decision-making centers around the ability to make investment decisions, portfolio diversification decisions, and to discriminate between good and bad financial decisions. De Bondt et al. (2010) posit that, when faced with a vast number of choices, young adults tend to avoid making a decision. Financial decision-making is also influenced by the illusion of control, where individuals overestimate their ability to control events (Fellner, 2009). Disposition effect and overconfidence play an important role in financial decision-making. Investors are likely to sell shares that have increased in price but tend to keep those that have dropped in price (Muradoglu & Harvey, 2012). Jureviciene and Ivanova (2013) posit that risk aversion, regret, and overconfidence play an important role in individuals' financial management.

### 5.3 DESCRIPTION OF CONSTRUCTS AND VARIABLES

#### 5.3.1 Social Structural Factors

This section provides the definitions and measurements of the *Social structural factors* variable. The factors are: *Parental SES*, *Culture*, and *Parenting style*. Table 5.12 provides the definition of social structural variables.

**Table 5.12: Definitions of Social structural factors**

Factor	Definition
Parental SES	Parental income, education, and occupation
Culture	Parental values, beliefs, and norms
Parenting style	Parental demandingness and responsiveness

Source: Author's own

Table 5.13 indicates the measurements used to determine social structural variables.

**Table 5.13: Measurements used for *Social structural factors* variable**

Factor	Measurement	Source
SES: Parental income level	My parent's(s') estimated monthly income	Author's own
SES: Parental level of education	My parents'(s') educational level(s)	
SES: Parental occupation	My parent's(s') occupation(s)	
Culture	My parent(s): <ul style="list-style-type: none"> <li>- upheld cultural values.</li> <li>- taught me that only boys should be involved in family money matters.</li> <li>- taught me that only girls should be involved in family money matters.</li> <li>- taught me that both boys and girls should be involved in family money matters.</li> <li>- believed that money matters should not be discussed with children.</li> <li>- believed that only girls must do household chores such as cleaning and cooking.</li> </ul>	Author's own compilation

**Table 5.13 (Cont.): Measurements used for *Social structural factors* Variable**

	<ul style="list-style-type: none"> <li>- taught me about our tradition, heritage and cultural values.</li> <li>- participated in cultural activities that are specific to our family.</li> </ul>	Author's own compilation
<b>Parenting style:</b> Authoritarian	<p>My parent(s):</p> <ul style="list-style-type: none"> <li>- were easy on time for me to come back home.</li> <li>- discussed family rules with me.</li> <li>- would involve me in decisions about what I was allowed to do.</li> <li>- told me that their decisions are final.</li> <li>- used physical punishment as a way of disciplining me.</li> <li>- exploded in anger towards me.</li> <li>- criticized me to make me improve.</li> </ul>	Robinson, Mandleco, Olsen & Hart (1995; revised 2001)
<b>Parenting style:</b> Authoritative	<ul style="list-style-type: none"> <li>- did fun things together.</li> <li>- spent time just talking to me.</li> <li>- would explain why, if they want me to do something.</li> <li>- encouraged me to look at both sides of issues.</li> <li>- encouraged me to talk about my troubles.</li> </ul>	
<b>Parenting style:</b> Permissive	<ul style="list-style-type: none"> <li>- allowed me to spend my free time as I want.</li> <li>- had an interest in my activities.</li> <li>- usually told me reasons for rules.</li> <li>- praised me when I do things well.</li> </ul>	
<b>Parenting style:</b> Neglectful	<ul style="list-style-type: none"> <li>- did not worry whether or not I do the chores they ask me to do.</li> <li>- allowed me to do pretty much what I want without questioning my decisions.</li> <li>- allowed me to go where I want without questioning me.</li> </ul>	Robinson, Mandleco, Olsen & Hart (1995; revised 2001)

Source: Author's own compilation

### 5.3.3 Individual Factors

The *Individual factors* variable consisted of the *Child's gender* and *Parental gender*. Table 5.14 provide the definition of *Child's gender* and *Parental gender* and the measurement used for this study.

**Table 5.14: Definition Individual factors variable**

Factor	Definition	Measurement	Sources
Child's gender	Refers to child's gender	My own gender	Homan (2016)
Parental gender	Refers to parental gender	My female parent(s) taught me about money. My male parent(s) taught me more about money Both male and female parents taught me about money.	Author's own compilation

Source: Author's own compilation

### 5.3.4 Parental Financial Socialisation

This section provides definitions and measurements of the *Parental financial socialisation* variable. Table 5.15 provides the definition and Table 5.16 indicates the measurements.

**Table 5.15: Definition of *Parental financial socialisation* variable**

Factor	Definition
Financial teaching	Deliberate instructions and direct teaching of credit, budgeting, saving, and certain financial practices by parents.
Financial discussions	Parental discussions of financial matters and involvement in family financial decision-making.
Financial monitoring	Parental monitoring of expenditure, guidance, making rules about the child's financial behaviour, and maintaining discipline practices.
Financial modelling	Refers to indirect teaching through observations of parental financial behavior.

Source: Author's own compilation

**Table 5.16: Measurements used to determine parental financial socialisation**

Factor	Measurements	Sources
Financial teaching	<p>My parent(s):</p> <ul style="list-style-type: none"> <li>- taught me about budgeting</li> <li>- taught me about credit.</li> <li>- taught me how to be a smart shopper.</li> <li>- taught me about savings.</li> <li>- taught me how to manage my money.</li> <li>- taught me about money only in early childhood.</li> <li>- taught me about money only in adolescence.</li> <li>- taught me about money throughout childhood.</li> </ul>	<p>Furnham (1999);            Antoni (2018);            Grintein-Weiss et al. (2012); Shim et al. (2010)</p>
Financial discussions	<p>My parent(s):</p> <ul style="list-style-type: none"> <li>- involved me in family financial matters.</li> <li>- discussed with me managing expenses and avoiding overspending.</li> <li>- discussed with me checking credit report.</li> <li>- discussed with me paying bills on time</li> <li>- discussed their personal financial decisions with me.</li> <li>- spoke to me about the importance of saving.</li> <li>- talk to me about things we need to buy.</li> <li>- explained the use of credit.</li> <li>- explained the family spending plan.</li> </ul>	<p>Buccioli &amp; Veronesi (2014)</p>
Financial monitoring	<ul style="list-style-type: none"> <li>- gave me allowance such as pocket money.</li> <li>- would allow me to spend money as I want.</li> <li>- would want to know how I spend pocket money.</li> <li>- would give me financial advice.</li> <li>- would want to know if I receive money from part-time job.</li> <li>- monitored my spending behaviour.</li> <li>- restricted my spending.</li> <li>- reviewed my spending habits.</li> <li>- would allow me to spend money as I want.</li> </ul>	

**Table 5.16 (Cont.): Measurements used to determine parental financial socialisation**

Financial modelling	<ul style="list-style-type: none"> <li>- saved money for the future.</li> <li>- used a budget.</li> <li>- tracked monthly expenses.</li> <li>- paid bills on time.</li> <li>- encouraged me to save</li> <li>- opened a saving account for me</li> <li>- involved me in drafting grocery list</li> <li>- went to shopping me</li> </ul>	
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Source: Author's own compilation

### 5.3.5 Financial Literacy

The measurements of *Financial literacy* are discussed in this section. *Financial literacy* comprises of *Financial behaviour*, *Financial knowledge*, *Financial attitude*, and *Financial decision-making*. Table 5.17 provides the definitions.

**Table 5.17: Definition of *Financial literacy* variable**

Factor	Definition
Financial knowledge	Young black African adults' knowledge about investment, risk and return, basic financial concepts, and compound interest.
Financial attitude	Young black African adults' perception regarding their financial situation and their beliefs about saving, investment, spending, and credit.
Financial behaviour	Saving, spending, and borrowing behaviour of young black African adults.
Financial decision-making	Young black African adults' ability to discriminate between good and bad financial decisions.

Source: Author's own compilation

Table 5.18 indicates the measurements used to determine financial literacy.

**Table 5.18: Measurements of *financial literacy***

Factor	Measurement	Sources
<p><b>Financial behaviour:</b></p> <p>Saving</p>	<p>I regularly set money aside for saving.</p> <p>I save money each month for the future.</p> <p>I save money to achieve long-term financial goals.</p> <p>I set money aside for emergencies.</p> <p>I regularly set money aside for possible unexpected expenses.</p>	<p>Homan (2010); Agnew et al. (2018)</p> <p>Bucciol &amp; Veronesi (2014)</p>
<p><b>Financial behaviour:</b></p> <p>Spending</p>	<p>I estimate my monthly income and expenses.</p> <p>I have a plan for how to use my money.</p> <p>I compare prices when making a purchase.</p> <p>I follow a weekly or monthly budget.</p> <p>I follow the plan I have for how to use my money.</p> <p>I regularly review my spending plan</p> <p>Before buying anything, I carefully check whether I am able to pay for it.</p> <p>I keep written or electronic financial records of my expenditure.</p> <p>I review my bills before making a purchase.</p>	<p>Potrich et al. (2015); Fulk &amp; White (2018)</p>
<p><b>Financial knowledge:</b></p> <p>Basic financial concepts</p>	<p>If interest rate rises, so is loan repayments.</p> <p>I know the difference between a need and a want.</p> <p>I know key questions to ask when shopping</p> <p>I understand the cost of buying on credit.</p> <p>I know what is on a credit record or report.</p> <p>Compared to my friends, I know more about savings.</p> <p>I know a lot about saving money.</p> <p>High inflation means that the cost of living is increasing.</p> <p>Credit providers use debt repayment records and affordability when making decisions to approve loans.</p> <p>Financial record keeping and budgeting are the same</p> <p>VAT is tax paid on goods and services.</p> <p>I must have a bank account to have an ATM card.</p>	<p>Authors' own compilation; Lusardi (2008); Lusardi &amp; Tufano (2015); Antoni (2018); Hilgert, Hogarth &amp; Beverly (2003); Chen &amp; Volpe (2002)</p>

**Table 5.18 (Cont.): Measurements of *financial literacy***

<b>Financial knowledge:</b> Saving and investment	You should have an emergency fund that covers two to six months of your expenses.	Hilgert, Hogarth & Beverly (2003); Chen & Volpe (2002)
<b>Financial knowledge:</b> Risk and return	An investment with high return will have a high risk rate.	Hudson et al. (2017); Author's own compilation; Murphy (2013); Grohmann & Menkhoff (2015); OECD (2016); FSB (2015)
<b>Financial knowledge:</b> Compound interest	With compound interest, you earn interest on your interest, as well as on your capital amount. If you have R100 in a savings account and the interest rate is 2% per year. You will have R102 in your savings account after one year.	
<b>Financial attitude:</b> Current financial situation	I am good at managing my money. I am satisfied with the way I pay my bills. I am satisfied with my ability to meet monthly living expenses.	
<b>Financial attitude:</b> Spending and credit	I am prepared to risk some of my own money when saving. I find it more satisfying to save money for long-term than to spend it. I spend money today thinking about how I would survive tomorrow. I buy things on credit rather than waiting and saving up	
<b>Financial decision making:</b> Gathering information	I feel confident about making decisions that deal with money. I find it easy to decide on what to include in my personal budget. I choose financial products after gathering enough information.	

**Table 5.18 (Cont.): Measurements used to determine financial literacy**

<p><b>Financial decision making:</b> Ability to make appropriate financial decision</p>	<p>I make sound financial decisions that I do not regret later.</p> <p>I buy financial products that are clearly suitable for me.</p> <p>I consider terms and conditions before signing credit or investment agreement.</p> <p>I make financial decisions based on what my parent(s) have done in similar situations.</p> <p>I make financial decisions based on what my parent(s) have taught me</p> <p>I look to my parent(s) when it comes to managing money.</p>	
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Source: Author’s own compilation

#### **5.4 SUMMARY**

The chapter discussed the parental financial socialisation process and the conceptual model of the study and provided the definitions and measurements for the variables of the study. The parental financial socialisation process was depicted, indicating the variables. The *Social structural factors* were *Parental SES (Parental income, Parental level of education, and Parental occupation)*, *Culture*, *Parental gender*, and *Parenting style*. *Individual Factors* consisted of *Child’s gender and parental gender*. *Parental financial socialisation* consisted of *Financial teaching, Financial monitoring, Financial modelling, and Financial discussions*. *Financial literacy* comprised *Financial knowledge, Financial behaviour, Financial attitude, and Financial decision-making*. Lastly, the definitions and measurements of the variables were provided. The next chapter focuses on the research methodology applied in the study.

## CHAPTER 6

### RESEARCH METHODOLOGY

#### 6.1 INTRODUCTION

The previous chapter discussed the conceptual framework of the study and the financial socialisation process, including the variables under study. This chapter focuses on the research methodology followed in conducting the study. The chapter comprises 11 sections. Section 6.2 discusses the research philosophy, Section 6.3 discusses the research approach, and Section 6.4 details the research design. Section 6.5 highlights the study area, Section 6.6 explains the sampling method, and Section 6.7 discusses the data collection instruments. Section 6.8 focuses on the data collection procedure, Section 6.9 deals with the data analysis methods, and Section 6.10 highlights the methodological limitations of the study. Section 6.11 discusses ethical considerations, and, lastly, Section 6.12 summarises the chapter.

#### 6.2 RESEARCH PHILOSOPHY

A research philosophy is a system of beliefs and assumptions about the development of knowledge and is often called the *research paradigm*. A research philosophy is the beliefs and assumptions about reality, human knowledge, and how own values influence research. There are several research philosophies, i.e., positivism, critical realism, interpretivism, postmodernism, and pragmatism (Saunders, Lewis & Thornhill, 2016). The present study followed the positivist philosophy. This implies an objective epistemology and the ontological belief that there is only one true reality. The ontological assumptions underpinning positivism pertain to the existence of independent realities outside the mind. Objectivism is the term generally used to describe the ontological stance of positivism, which claims that researchers should consider concepts as objective and real so that they can be deemed verifiable (Cohen, Manion & Morrison, 2018). The epistemological assumption of positivism holds that meanings reside within entities as objective truth and independent of the human mind (Cohen et al., 2018). In line with positivism, the present researcher used existing theory to develop hypotheses, which were then tested. The

concepts that were investigated, such as financial socialisation and financial literacy, were independent of the researcher, and were studied objectively. Saunders et al. (2016) assert that a positivist researcher should be detached and neutral regarding what is being researched and maintain an objective stance. This emphasises the focus on strictly scientific methods designed to yield pure data and facts uninfluenced by human interpretation or bias and looking for causal relationships in the data in order to make generalisations.

Positivism typically calls for deductive reasoning, a highly structured methodology, large samples, and quantitative measurement, in order to facilitate replication (Gill & Johnson, 2010). Positivist studies mainly investigate social reality and uses quantitative research approach. The present study fits this description, as it focused on the social phenomenon of the influence of financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa, which was necessitated by the social problem of indebtedness and financial vulnerability amongst this cohort.

### **6.3 RESEARCH APPROACH**

There are three approaches in research, namely qualitative, quantitative, and mixed methods. The present study followed the quantitative approach. This approach was chosen because it gives the researcher more control over external factors that could influence the research. This approach is associated with methodological principles of positivism, especially when used with predetermined and highly structured data collection techniques (Adams, Khan & Raeside, 2014; Saunders et al., 2016). The quantitative approach is more formal and can be greatly controlled in testing the relationship between variables and expressing or explaining a phenomenon in amount or quantity (Gerrish & Lacey, 2006; Kothari, 2004), using statistical analyses (Adams et al., 2014).

Using this approach, researchers gather data in such a way that the data are easy to quantify, allowing for statistical analysis (Patten & Newhart, 2018). Quantitative research is usually associated with a deductive approach, where data are collected and analysed to test theory. This is exactly what this study intended to do, collect data and test

hypotheses developed in line with adopted theories, and establish relationships between financial socialisation and financial literacy, to achieve the objective of the study.

#### **6.4 RESEARCH DESIGN**

A research design is the blueprint of how the study will be conducted in order to attain the research objectives. It is a master plan specifying the methods and procedures for collecting and analysing the needed information. There is no particular research design that is more valuable than the other; the best design is the one that is more appropriate for the research problem and purpose (Saunders, Thornhill & Lewis, 2019). A good research design is one that minimises bias and maximises the reliability of the data collected, yielding maximal information (Kothari, 2004).

There are several types of quantitative research design: experimental, quasi-experimental, and non-experimental (Adams et al., 2014; Godwill, 2015). The experimental design is used to test hypotheses and establishing causality, and often requires evidence generated from experiments. The researcher decides what is to be manipulated and is able to exercise control by eliminating actions of variables apart from the independent ones. In using the quasi-experimental design, participants are assigned to groups without randomisation. It is often used when randomisation opposes the research idea (Godwill, 2015). The non-experimental design is distinguishable from the true experimental and quasi-experimental designs by the fact that the setting is not controlled and there is no manipulation of the independent variable. There is no intervention by the researcher. The main purpose of non-experimental research is to describe phenomena and explore and explain relationships between variables (Saunders et al., 2019). The present study followed a non-experimental design, because the objective was to explain the relationship between two variables: financial socialisation and financial literacy.

There are several non-experimental research designs, classified into four main categories, namely descriptive, comparative, correlation, and survey (Bryman, 2016; Patten & Newhart, 2018; Saunders et al., 2019). Descriptive studies aim to gain more information about one or more characteristics of the population or phenomenon within a

particular field of study. Descriptive studies describe the variables in order to answer the research question and objectives, but there is no intention of establishing a cause–effect relationship (Bryman, 2016). Comparative designs are used to describe variables, as well as the differences between or amongst two or more groups, to see if and how they differ. Correlational research, also known as *ex post facto research*, describes existing relationships between variables in order to determine the relationship between independent and dependent variables. The survey design is used to collect primary data on a single occasion from different participants (Saunders et al., 2019). To conduct a survey, the researcher draws a sample from a population, collects data from the sample, and then makes inferences about the population, using statistical tools (Patten & Newhart, 2018). The present study followed the survey design, a non-experimental research design as it was considered to be in line with the objectives of the study, and the design is widely used to obtain quantitative data.

The researcher collected primary data from Intsika Yethu municipality, in the Eastern Cape, and Fetakgomo Tubatse municipality, in Limpopo, and then applied statistical analyses to produce the research results. The descriptive design is also considered in line with this study, because the main purpose was to gain an accurate profile of events, persons, and situations (Saunders et al., 2016). In the present study, participants were profiled in the examination of the relationship between financial socialisation and financial literacy.

## **6.5 STUDY AREA**

The present study focused on low-income and rural areas in South Africa. This is because young black African adults in rural and low-income area in South Africa are financial vulnerable and are facing significant financial challenges. Additionally, young black African adults in Eastern Cape display a low level of financial literacy (Antoni, 2014). According to StatsSA (2016), Eastern Cape and Limpopo are two of the provinces with the highest level of poverty in the country, with most municipalities in these provinces classified as category B4, which indicates a rural area. Intsika Yethu Municipality in Eastern Cape has the highest poverty in South Africa, followed by Greater Tubatse and

Fetakgomo in Limpopo. These municipalities are also located in what are classified as rural areas (StatsSA, 2016).

Greater Tubatse and Fetakgomo were merged into one municipality in 2016, per Municipal Demarcation Board Notice of 2015, and became Fetakgomo Tubatse. Table 6.19 lists the municipalities with the highest poverty levels in South Africa.

**Table 6.19: Top ten municipalities in terms of poverty**

No.	Province	District	Municipality	Municipal Sub-category	Poverty headcount	Intensity of poverty
1	Eastern Cape	Chris Hani	EC135: Intsika Yethu	B4	27.7%	43.2%
2	Limpopo	Greater Sekhukhune	LIM475: Greater Tubatse	B4	27.7%	43.2%
3	Limpopo	Greater Sekhukhune	LIM474: Fetakgomo	B4	24.5%	44.1%
4	KwaZulu-Natal	Umzinyathi	KZN: Msinga	B4	24.5%	44.1%
5	Eastern Cape	Alfred Nzo	EC442: Umzimvubu	B4	24.2%	43.8%
6	Limpopo	Greater Sekhukhune	LIM473: Makhuduthamaga	B4	24.2%	43.8%
7	Eastern Cape	O.R. Tambo	EC154: Port St Johns	B4	23.4%	44.5%
8	Limpopo	Greater Sekhukhune	LIM472: Elias Motsoaledi	B4	23.4%	44.5%
9	Eastern Cape	Alfred Nzo	EC444: Ntabankulu	B4	23.3%	45.6%
10	Limpopo	Waterberg	LIM367: Mogalakwena	B4	23.3%	45.6%

Source: StatsSA (2016)

### **6.5.1 Intsika Yethu Municipality**

Intsika Yethu Municipality is a Category B municipality with an area of 2 711 km<sup>2</sup>, situated within the Chris Hani District in the Eastern Cape. It is divided into 21 wards and 214 villages and has 40 448 households (Intsika Yethu Integrated Development Plan (IDP), 2019). The total population is approximately 145 372 (Intsika Yethu IDP, 2019). It is bordered by Sakhisizwe to the north, the Amathole District to the south, Engcobo to the east, Emalahleni and Enoch Mgijima to the west. The municipality is one of six municipalities in the district, accounting for 8% of its geographical area. Intsika Yethu is an isiXhosa name meaning *Our pillars*. The main towns in Intsika Yethu municipality are Cofimvaba and Tsomo. The main economic activities are community services, trade, and agriculture.

In 2016, the population group with the highest percentage of people living in poverty (using the upper poverty line definition), at 78.3%, was the black African population group (Intsika Yethu IDP, 2019). It was estimated in 2016 that 20.75% of all households in the Intsika Yethu Municipality were living on R30 000 or less per annum, with many households relying on social grants as their sole source of income (Intsika Yethu IDP, 2019). The unemployment rate was 46.6%, with youth unemployment at 56.4% (Intsika Yethu IDP, 2019).

### **6.5.2 Fetakgomo Tubatse Municipality**

Fetakgomo Tubatse municipality, also known as LIM 476, has an area of 4 550 km<sup>2</sup>, and was the result of a merger of two municipalities, Fetakgomo and Greater Tubatse. It is situated in the Greater Sikhukhune District in Limpopo. The area is known as the 'Middelveld', as it is located between the Highveld and Lowveld regions. The municipality has a population of approximately 386 752, living in 342 villages, with the total number of households estimated at 189 269 (Fetakgomo Tubatse IDP, 2018). The municipality has a total of 39 wards, making it the third-largest municipality in Limpopo in terms of wards (Fetakgomo Tubatse IDP, 2018). The municipality is largely rural, with only six proclaimed townships. Like most rural municipalities in South Africa, Fetakgomo Tubatse is characterised by a weak economy, inadequate infrastructure, major service backlogs,

dispersed human settlements, and high poverty levels. The main economic activities are agriculture, mining and quarrying, trade, tourism, manufacturing, social and personal services, and catering and accommodation.

## 6.6 SAMPLING

Sampling is the process of selecting study respondents from the population under investigation (Adams et al., 2014). A sample that is representative of the population must be selected, as studying the total population is usually not possible, due to limitations related to cost, time, and logistics, amongst others (Singh, 2006). Bad sampling vitiates data at the source, and no amount of subsequent statistical analysis will improve the quality (Singh, 2006). Therefore, a researcher must ensure that a proper sampling design is prepared. A sampling design is a plan for obtaining a sample from a given population, and includes the population, required sample size, sampling techniques, and sampling procedure (Godwill, 2015).

### 6.6.1 Population

According to Dhawan (2010), a population is the total number of items about which information is desired. The population is the study object to which the research problem applies and may consist of individuals, animals, groups, or products (Saunders et al., 2016). The total population of the present study was 153 694 young black African adults aged to 18 and 35 years in Fetakgomo Tubatse and Intsika Yethu municipalities. Table 6.20 provides a breakdown of the population.

**Table 6.20: Population of Black African young adults aged 18–35 years**

<b>Municipality</b>	<b>Population</b>
Fetakgomo Tubatse	122 562
Intsika Yethu	31 132
<b>Total</b>	<b>153 694</b>

Source: StatsSA (2011)

Table 6.21 and Table 6.22 indicate wards, villages, number of households, and age categories for each ward, for Fetakgomo Tubatse and Intsika Yethu respectively. It is important to indicate that Table 6.21 and Table 6.22 were constructed based on integrated information from a StatsSA Census (2011) and Fetakgomo Tubatse and Intsika Yethu municipalities' IDP documents, as there was no single database with all the required data available. In this regard, Babbie and Mouton (2011) note that researchers in developing countries often struggle to obtain data, and the data are often insufficient or erratic.

**Table 6.21: Ward population of black Africans by age in Fetakgomo Tubatse municipality**

Ward number	Villages	Number of households	Population of black Africans by age				Total
			0–17	18–35	36–55	56 +	
Ward 1	Ga-Mabelane, Newstands (Pelaneng), Makgalane, Makopung, Mapareng, Malaeneng, Mokutung, Maepa & Ramakgai, Ohrigstad, Pureplaas, Matibi, Rustplaas, Gakoma	3 263	3 156	2 310	1 386	891	<b>7 743</b>
Ward 2	Mapodile township, Legabeng, Tukagomo 1, Mohloakwena, Ga-Ragopola, Molawetsi, Tukagomo 2, Malaeneng	6 300	5 364	5 487	2 895	813	<b>14 559</b>
Ward 3	Ga-Mmakopa Badimong, Tsereng (Pukubjane and Senthlane), Mapulaneng, Ga-Phasha, Ga-Tebeila, Maroteng Tsate, Selotsane, Molalaneng, Leswaneng, Matebeleng, Mogolwaneng, Shushumela, Maebe, Ga-Matjie, Makola, Lekgwarapeng, Rite, Sekateng	3 610	4 023	3 054	1 443	1 155	<b>9 675</b>
Ward 4	Mpita, Matsianeng & Riba Cross, Legabeng, Maditongwane Central, Maditongwane West, Maditongwane East	6 688	1 935	1 839	801	507	<b>5 082</b>
Ward 5	Pomping & Thabaneng, Polaseng, Morewane & Madithogwane, Madiseng & Sethokeng, London, Stasie, Mandela 1 & 2, Mandela Lepakeng, Mandela Crossong, Sedibaneng	12 000	5 964	4 662	2 472	876	<b>13 974</b>
Ward 6	Nazareth New Stand, Ga-Nkgetheng, Ka-Motseng, Sethokgeng, Potas, Ditseng, Mokgethi, Maraganeng, Maribiri, Magaseng, Monare, Dipolateng	8342	3 582	3 006	1 404	1 020	<b>9 012</b>
Ward 7	Gowe, Kampeng, France, Hollong, Mooihoek, Maponong, Legononong, Boitumelo, & Lekgwareng	3 220	4 386	4 191	2 439	999	<b>6 378</b>
Ward 8	Diphale, Seuwe, Magabeneng, Mantjakane, Modimolle, Madikane	4 297	4 749	3 684	1 734	1 216	<b>11 283</b>
Ward 9	Thokwane, Shakung, Sehunyane, Malokela, Ga-Phala, Modubeng	2 314	5 145	3 402	1 752	1 218	<b>11 517</b>
Ward 10	Tjate, Mongatane, Makgopa, Serafa, Dithabaneng, Maakgake, Madifahlane	1 751	5 079	4 290	2 193	924	<b>12 486</b>

**Table 6.21 (Cont.): Ward population of black Africans by age in Fetakgomo Tubatse municipality**

Ward 11	Ga-Ragopola, Legabeng, Maroga, Morethe, Moeng, Morokadieta (Maapeya), Digabane, Sekiti, Mooihoek, Molongwane	5 295	2 901	2 523	1 308	654	<b>7 386</b>
Ward 12	Mamphahlane, Swale, Mpuru, Komane, Crossing/Mohubane, Sehlaku, Molongwane/Mashibishane, Balotsaneng, Matimatjatji, Hwashi/Difagate	3 165	3 564	2 883	1 431	918	<b>8 796</b>
Ward 13	Praktiseer Ext 2–10 and 15; Tshwelopele Park; Ramaube	15 015	6 495	6 492	3 021	840	<b>16 848</b>
Ward 14	Moroke, Sekhutlong, Magobading, Motlouela, Habeng, Moshira, Gamathule	4 435	5 700	3 660	2 124	1 119	<b>12 603</b>
Ward 15	Kgoete, Mashishi, Morapaneng, Ditwebeleng, Shakung, Masete, Mphogo	11 068	3 873	2 427	1 113	858	<b>8 271</b>
Ward 16	Kgopaneng, Maakubu, Ga-Mokgotho, Malepe, Maretlwaneng, Momogolo, Lefahla, Motshana, Moraba, Penge	3 276	3 762	2 322	1 239	804	<b>8 127</b>
Ward 17	Ga-Mahlokwane, Ga-Selala, Ga-Mphethi, Ga-Manyaka & Ga-Maapea	5 450	4 935	3 807	1 716	1 038	<b>11 496</b>
Ward 18	Burgersfort, Manoke, Apiesdoring	3 280	3 105	3 981	1 869	588	<b>9 543</b>
Ward 19	Magologolo, France Park, Legabeng, Motaganeng, Barcelona, Mohlopi, Maathipa, Kampeng, France Ext. 2, Maditameng, Khulwane, Komane, Mmiditsi, Modupi, Riba Moshate, Sekoma	3 941	4 389	3 429	1 914	1 035	<b>10 767</b>
Ward 20	Bothashoek	13 000	5 124	4 092	1 995	981	<b>12 192</b>
Ward 21	Pidima, Sekopung, Ga-podile, Makofane, Motlolo	3 698	2 868	1 869	987	771	<b>6 495</b>
Ward 22	Taung, Makotaseng, Matokomane, Motodi	2 981	3 810	2 655	1 188	948	<b>8 601</b>
Ward 23	Kgotlopong, Mahlatsi, Mafarafara, Motlailane, Alverton	1 920	4 077	2 988	1 410	1 098	<b>9 573</b>
Ward 24	Makgopa, Makgwareng, Legokgwareng, Mogoleng, Matshiretsane, Phadishanong, Maakgongwane, Masakeng, Ga-Molai, Ga-Kgwedi, Lebalelo, Paeng, Majaditshakhudi	3 600	4 074	2 292	1 242	1 305	<b>8 913</b>
Ward 25	B1, Mashamothane, Zone 1-8, Mareseleng, Mashamthane Zone 1 & 2, Mashifane Park	10 600	5 886	4 863	2 481	765	<b>13 995</b>
Ward 26	Rutseng, Ga-Nkoana, Banareng, Ga-Moraba, Lepelle A & B, Tswenyane, Matshokgeng, Phiring	2 880	3 339	2 058	1 179	1 080	<b>7 956</b>
Ward 27	Ga-Malekane, Tsakane, Kalkontein, Mawela, Matimatsatsi, Kutullo, Hlalanekahle, Tsatsapane	2 377	5 517	3 852	1 974	1 077	<b>12 420</b>

**Table 6.21 (Cont.): Ward Population of Black Africans by Age in Fetakgomo Tubatse Municipality**

Ward 28	Ga-Rantho, Mandela Section, Matshelapata Section, Ntshwaneng Section, Ga-Masha and Newstand (Zone 4, 5, and Mothlamonene Section)	4 600	4 947	3 885	1 725	1 146	<b>11 703</b>
Ward 29	Maphopha, Ntake (Masha), Makua, Ratau, Maepa, Magolego (Maseven), Makgwale New Stand	3 427	5 175	3 393	1 599	1 311	<b>11 478</b>
Ward 30	Park City, Vodaville, Mountain View, Town (Kweledi), Extension 11 (Airport), Extension 11 (Showground), Mapareng (Mabocho), Thabakhulwane (Mabocho), Lekgwareng (Mokobola), Mokobola (Morulaneng)	8 468	5 724	4 752	2 340	942	<b>13 758</b>
Ward 31	Dresden Village, Makgemeng, Kopie & Mangabane, Steelpoort	4 497	3 969	4 284	2 604	732	<b>11 589</b>
Ward 32	Shubushubung, Rostock, Mahlabeng, Mooiluk, Tjibeng, Ledingwe, Ga-Phasha Makgalanoto, Ga-Phasha Selatole, Ga-Mampa, Seokodibeng	3 380	2 637	1 575	885	942	<b>6 039</b>
Ward 33	Mogabane-Shole, Boselakgaka, Selepe Moshate, Selepe Mashemong, Manotana Mashemong, Checkers, Mosotse-Motjatjane, Phashaskraal, Swazi-Mnyamane	4 340	3 801	1 833	1 122	1 266	<b>8 022</b>
Ward 34	Mokgotho, Monametse, Sefateng, Mohlahlaneng, Bogalatladi, Mafeane, Mogolaneng, Bogalatladi A & B, Mabulela A & B, Maruping, Mogabane, Malomanye, Mphaaneng, Mashikwe	2 941	3 246	1 842	1 263	1 038	<b>7 349</b>
Ward 35	Ga-Maisela India, Pelangwe, Modimolle, Malogeng, Apel, Mapodi, Maesela-Mahlabaphoko, Mapulaneng, Nkoana Moshate, Matheba (Majane)	4 290	2 790	1 521	858	840	<b>6 009</b>
Ward 36	Moshate Tau Nchabeleng, Mapoteng, Tebeila, Mabopo, Mashung Ga Nchabeleng, Ga Nkwana Mashung, Apel Madithame, Mooiplaas, Masha, Strydkraal A	4 697	2 532	1 431	1 002	1 005	<b>5 970</b>
Ward 37	Strydkraal B, Ga-Matlala, Thobehlele, Thanaseshu, Ga-Mashabela, Matamong, Seleteng, Moshate, Moagagamatala, Sepakapakeng, Malaeneng A & B, Mototolwaneng, Matebana, Radingwana	4 746	3 486	2 076	1 680	1 257	<b>8 499</b>

**Table 6.21 (Cont.): Ward Population of Black Africans by Age in Fetakgomo Tubatse Municipality**

Ward 38	Ga-Seroka, Manoge, Mashilabele, Phageng, Masehleng, Ga-Mmela, Phahlamanoge	3 080	3 435	2 115	1 359	1 341	<b>8 250</b>
Ward 39	Mokhulwane, Magotwaneng, Marakwaneng, Ga-Matsimela, GaPhoto, Makgwareng, Lerajane, Hanskomane, Bofafala-Sekateng, Malaeneng Rite, Lerajane-Ditlokwe, Makgoreng-Malaeng, Mesopotamia Tsweele	1 763	2 793	1 737	1 293	1 095	<b>6 918</b>
<b>Total</b>		<b>189 269</b>	<b>161 337</b>	<b>122 562</b>	<b>64 440</b>	<b>38 413</b>	<b>386 752</b>

Source: StatsSA (2011); Fetakgomo Tubatse IDP (2018)

Table 6.22 indicates the ward population of black Africans by age in Intsika Yethu municipality.

**Table 6.22: Ward population of black Africans by age in Intsika Yethu municipality**

Ward number	Villages	Ward population of black Africans by age							Total
		0–10	11–17	18–35	36–45	46–55	56–65	66 +	
Ward 1	Camama Forest, Mthimbini, Ngxiingweni, Elixeni, Thunzini, Zigudu, Sentile, Nyandana, Boomplas, Hoita Elalini, Mdange, Ngxwashu, Ntshintshi, Upper Sabalele, Kolofini, Mmangweni (Sabalele), Trustini, Thafeni, Madakana & Makwayini, Komkhulu, Mmangweni (Banzi), Ndlangisa	1 944	1 278	1 335	519	630	630	927	<b>7 263</b>
Ward 2	Belokodlela, Ntshingeni, Mpomvane, Elalini & Tyelera, Bongolethu, RDP houses/St Marks Rural Housing	1 383	972	1 209	393	561	513	648	<b>5 679</b>

**Table 6.22 (Cont.): Ward population of black Africans by age in Intsika Yethu municipality**

Ward 3	Nciba, Lalini, Thwisheni, Hlotsheni, Nkqayi, Bhabha, Gugu, Mission, Nomyayi, Luphindweni, Moyeni, Matolweni, Lokishini, Komkhulu, Mchewula, Fubu, Ngxalawa, Kensington, Kalimashe, Cenyu, Jim, Ncekemfu, Dubikazi, Dratini, Mbhongiseni, Lalini, Lamthole, Bengu, Mdukuteni, Cenyu, Mbhongiseni, Nzisane, Sixhotyeni	1 767	1 023	1 272	486	612	657	840	<b>6 657</b>
Ward 4	Maya, Mkhukwini, Zwelitsha, Nogate Township, Mngqanga, Ntlonze, Mtyhintyini, Mbinzana, Xabisweni, Holi & Singeni, Nyongwane, Lower Bilatye, Thobile Dyantyi/St Padricks	1 956	1 212	1 641	630	771	654	840	<b>7 704</b>
Ward 5	Upper Wodehouse, Mampingeni, Nyongwani, Mgongxo, Sdubi Port & Deckerts Hill, Ntlakwefolo, Mangweni, Elixeni	2 253	1 464	1 587	546	696	633	780	<b>7 959</b>
Ward 6	Luthuli, Sigubudwini, Mgwenyane, Gcibala, Mbulu, Mbulukweza, Jojweni (Xolobe), Mfula	1 863	1 218	1 524	564	633	687	762	<b>7 251</b>
Ward 7	Mangubomvu, Newmine, Shweni, Mdeni Lower, Qutsa, Ndenxe, Ndungwana, Nyoka, Komkhulu, Jojweni, Tom Sophete, Mangunkone, Lower Nqolosa, Upper Nqolosa, Camama	1 815	1 068	1 374	462	534	531	594	<b>6 378</b>
Ward 8	Tenza, Freystad, Miya, Daza, Maduna, East Bank, Ntsongeni, Tsomo Mission, Mzomhle, Tsomo Town, Ngcongcolora, Ntsume & Vananda V/A	1 806	1 137	1 980	729	588	537	537	<b>7 314</b>
Ward 9	Jwayi, Mdlokolo, Sifumba, Sixhotyeni, Mabentseni, Nyanisweni, Zidulini, Catshile, Mnyamandwano, Phakama Siciko, Lalini & Dryini, Mjulwa	1 554	1 098	1 158	375	513	444	495	<b>5 637</b>
Ward 10	Mtshabe, Gesini, Mhlahlane, Jojweni, Mdeni, Mahlubini, Lower Tsojana, Mkwinti, Fourty, Gqogqora, Majwarheni, Mnyangula	1 587	1 071	1 260	441	582	603	600	<b>6 144</b>
Ward 11	Mdeni, Sijingolweni, Ndlunkulu, Ku-Kose, Mdibaniso, Upper Makwababa, Ntwashini, Ntabeni, Gqogqora (Komkhulu)	1 518	957	999	357	471	384	435	<b>5 121</b>
Ward 12	Gxojeni, Makwababa, Ngojiji, Ngqwaru, Tshatshu, Ndungwana, Qwebe-Qwebe, Zwelixolile & Matholanyile	1 830	1 113	1 317	510	537	483	600	<b>6 390</b>

**Table 6.22 (Cont.): Ward population of black Africans by age in Intsika Yethu municipality**

Ward 13	Lutshabeni, Hnage, Gxwalibomvu, Lumani, Mdletyeni, Ngceza, Ngudle, Mawusheni (Komkhulu), Zicubeni & Nkomfeni, Khwebulana & Bongolethu	2 061	1 269	1 569	537	606	693	657	<b>7 392</b>
Ward 14	Ekuphumleni, Enyanisweni, Polly Clinic, Mandela View, Mahlubini, Thabo Village, Joe Slovo, Balfour Area, Cofimvaba Town & Ext. 04	1 770	1 329	3 186	1 146	672	348	174	<b>8 025</b>
Ward 15	Lower Wodehouse, Matshona, Luxhomo, Nyanzela, Sikobeni, Cube, Qolweni, Mcumngco	1 782	1 176	1 596	636	639	561	612	<b>7 002</b>
Ward 16	Lower Ncuncuzo, Madzikane, Mtyamde, Ngonyama, Qwili, Mahlathini, Tsojana & Bolana	2 349	1 572	1 704	597	699	696	798	<b>8 415</b>
Ward 17	Qumanco, Mathafeni, Ncora Flats, Ngqwaru (Pesikeni), Ngqwaru (Msintsini)/Mthanyana, Ndenxa, Sigangeni	1 905	1 185	1 512	528	666	594	630	<b>7 020</b>
Ward 18	Banti, Gongqo, Damane, Lower Ncora, Tshatshu, Mahlathini, Nqumakala, Chocho, Kulongqayi & Tshayelela	1 974	1 401	1 512	573	729	633	597	<b>7 419</b>
Ward 19	Zingqutu, Qolweni, Hala, Sgubudu, Mahlungulu, Mission, Kwagcina, Emaqwathini, Nyamankulu, Edikeni, Emahlathini, Emnqanqeni, Nongqongqwana	1 509	1 002	966	399	531	489	462	<b>5 358</b>
Ward 20	Lower Seplan, Rwantsana, Lubisi, Tsakana, Mcambalala, Mnkckuncuzo, Upper Mnkckuncuzo	1 653	999	1 164	420	597	477	657	<b>5 967</b>
Ward 21	Mtshanyane, Nxelesa, Ngxabangu, Taiwan, Hoyana, Mapungutye, Cube, Ngcaca, Diphini	2 109	1 563	1 347	513	678	639	807	<b>7 656</b>
<b>Total</b>		<b>38 388</b>	<b>25 107</b>	<b>31 212</b>	<b>11 361</b>	<b>12 945</b>	<b>11 886</b>	<b>13 452</b>	<b>145 372</b>

Source: StatsSA (2011); Intsika Yethu IDP (2019)

## 6.6.2 Sampling Methods

There are two main methods of sampling, namely probability sampling, also known as a *random sampling*, and non-probability sampling. Probability sampling was used in the present study; thus, all people in the population had an equal chance of being selected or included in the sample (Godwill, 2015). Probability sampling is the primary method of selecting large and representative samples (Babbie, 2013). Probability sampling comprises simple random sampling, systematic sampling, simple stratified sampling, proportional stratified sampling, and cluster sampling (Babbie, 2013; Godwill, 2015; Bryman, 2016). In the present study, cluster sampling, random sampling, and proportionate stratified sampling were used.

First, cluster sampling was used to divide and group each municipality into wards, villages, and households. Cluster sampling is used when the population is large and homogeneous, and spread over a large area (Babbie, 2013). The researcher begins with the largest, most inclusive sampling unit, and progresses to the next, until reaching the final stage, which is the selection of the elements or participants (Brink, Van der Walt & Van Rensburg, 2018). Wards in each municipality were sampled through simple random sampling, where a number for each ward was written on a piece of paper, folded, and placed in a box. The researcher drew papers one by one until the desired number of wards had been reached. To ensure representation, at least 50% of the wards were selected. This afforded all wards an equal chance of being selected (Henn, Weinstein & Foard, 2006).

Fetakgomo Tubatse municipality is made up of 39 wards, with 342 villages and 189 269 households, as indicated in Table 6.21, Section 6.5.1 (Fetakgomo Tubatse IDP, 2018). Therefore  $(39 \times 0.50) = 9$  wards were selected. Intsika Yethu municipality is made up of 21 wards, with 214 villages and 40 448 households, as indicated in Table 6.22, Section 6.5.1 (Intsika Yethu IDP, 2019). Thus,  $(21 \times 50\%) = 10$  wards were selected. Table 6.23 lists the wards sampled in Fetakgomo Tubatse and Intsika Yethu municipalities.

**Table 6.23: Sampled Wards in Fetakgomo Tubatse and Intsika Yethu municipalities**

Municipality	Sampled wards	Population of sampled wards (young black African adults 18–35 years)
Fetakgomo Tubatse	Ward 2; Ward 3; Ward 4; Ward 7; Ward 10; Ward 11; Ward 14; Ward 15; Ward 16; Ward 18; Ward 20; Ward 29; Ward 30; Ward 32; Ward 34; Ward 35; Ward 37; Ward 38; Ward 39	56 877
Intsika Yethu	Ward 1; Ward 3; Ward 5; Ward 7; Ward 8; Ward 12; Ward 13; Ward 14; Ward 16; Ward 18	16 836

Source: Fetakgomo Tubatse IDP (2018); Intsika Yethu IDP (2019)

As indicated in Table 6.23, a total of 19 wards for Fetakgomo Tubatse and 10 wards for Intsika Yethu municipalities were randomly sampled.

Second, proportionate stratified sampling was used to apportion sample size to each municipality and to each selected ward, based on the population proportion percentage. This is discussed in detail in Section 6.6.3.

Third, simple random sampling was again applied to select villages and households in each ward, where young black African adults would be visited at their homes to collect the data for the study. Geographic maps were obtained from Fetakgomo Tubatse and Intsika Yethu municipalities, which indicated the villages, streets, and location of households. The first village from each ward as displayed on the map, together with the first household, were randomly selected. If there were no respondents that met the inclusion criteria in the first household, the next household was selected. The inclusion criteria in this study is that a respondent must be a young black African adult between the age of 18 and 35 residing in Fetakgomo Tubatse and Intsika Yethu.

Thereafter, systematic sampling was used, where households were selected per interval (Godwill, 2015). The interval was calculated by taking the sample size and dividing it by the number of sampled wards (Salkind, 2017). In Fetakgomo Tubatse municipality the interval was calculated as  $(306/19) = 16$ ; the researcher thus counted households 1 to 15 from both sides of the street, and then selected the 16<sup>th</sup> household. For Intsika Yethu municipality, the interval was  $(78/10) = 7$ ; thus, the researcher counted households 1 to 6 from both sides of the street, and then selected the 7<sup>th</sup> household. If no suitable participants were found, the next household was visited. This procedure was repeated until a household with young adults was found, and the researcher then repeated the counting to sample the next household. The same procedure was followed in the next village, until the desired sample size was reached. Thereafter, the next ward was visited, where the researcher applied the same procedure.

### **6.6.3 Sample Size**

Selecting and obtaining the appropriate sample size is a problem every researcher faces (Brink et al., 2018). In selecting the sample, variables such as homogeneity, the precision with which the researcher wants to make inferences to the population, and the level of confidence desired, method of data collection, research hypothesis, statistical analyses to be used, financial resources, and attrition rate are important considerations (Dhawan, 2010; Brink et al., 2018). The goal is to choose a sample that is representative of the population. A representative sample means that the sample is similar to the entire population in as many ways as possible. Thus, the sample should replicate the population variables in approximately the same proportion as these occur (Brink et al., 2018). The larger the sample size, the better, but having a large sample is no guarantee of accuracy, and a poor sampling design can inflate sampling error and bias.

Determination of the sample size needed for a study is complicated, as there is no absolute standard regarding an adequate sample size and no rule of thumb that applies to all situations. There is no consensus in literature regarding appropriate sample size (Muthen & Muthen, 2002; Wang & Wang, 2012). However, researchers have provided guidelines to consider when determining sample size. According to Israel (2003), a good

sample size for a study that uses multiple regression and analysis of covariance to analyse the data must be between 200 and 500. In the present study, multiple regression analysis was to be used, so the sample size had to be within that range in order to meet test criteria.

Krejcie and Morgan (1970) provided a table with which to determine sample size based on the population. The population for the present study was 153 694; therefore, according to Krejcie and Morgan's (1970) table, the corresponding sample size was 384. Tabachnick and Fidell (2013) assert that, for studies in which factor analysis will be conducted, the sample size should be at least 300, and that there should be a ratio of at least five cases for each of the variables.

In the present study, EFA would be conducted to identify the number of latent constructs and the underlying factor structure of a set of variables. Comrey (1973) recommended a sample size of between 300 and 500 for conducting EFA. Another important issue to be considered was the appropriate sample size when conducting structural equation modelling (SEM), as the SEM would be used to verify the factor structure of a set of observed variables. A sample size of between 100 and 150 is considered the minimum for conducting SEM (Muthen & Muthen, 2002; Tabachnick & Fidell, 2013). According to Kline (2005), a larger sample size of  $n = 200$  is considered appropriate for SEM.

Yamane (1967) provided a formula to calculate sample size. The formula is simple, has been used in other studies (Dika, Masawe, Iddi & Rumanyika, 2018; Mohammad, 2018; Eze, 2017), and has been found to be very effective in determining sample size (Israel, 2003). The formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

where:

$n$  = sample size

$N$  = population of the study

$e$  = significance level (0.05 for this study)

$$n = \frac{153694}{1+153694 (0.05)^2}$$

$$= \frac{153694}{384,2375}$$

$$= 499,9973$$

rounded= **500**

In view of the suggestions of the recommended sample size and factors to consider when determining sample size (Yamane, 1967; Comrey, 1973; Krejcie & Morgan, 1970; Israel, 2003; Tabachnick & Fidell, 2013; Brink et al., 2018), a sample size of 500 was considered suitable for the present study. The next step was to determine sample size for each municipality and selected wards.

The sample size for each municipality was calculated as a proportionate percentage of the entire population of young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities. Table 6.24 indicates the sample size for each municipality.

**Table 6.24: Sample size for municipality**

Municipality	Population	Proportionate Percentage	Sample size
Fetakgomo Tubatse	122 562	79.74%	399
Intsika Yethu	31 132	20.26%	101
<b>Total</b>	<b>153 694</b>	<b>100%</b>	<b>500</b>

Source: Author's compilation; Fetakgomo Tubatse IDP (2018); Intsika Yethu IDP (2019)

Tables 6.25 and 6.26 indicate sample size at ward level for each municipality as a proportionate percentage of the total population of the municipality. For Fetakgomo Tubatse municipality, a total of 19 wards were randomly selected, as shown in the table below.

**Table 6.25: Sampled wards and sample size for Fetakgomo Tubatse municipality**

No.	Ward number	Number of households	Population (black African young adults aged 18–35)	Proportionate percentage (%)	Sample size
1.	Ward 2	6 300	5 487	9.65	38
2.	Ward 3	3 610	3 054	5.37	21
3.	Ward 4	6 688	1 839	3.23	13
4.	Ward 7	3 220	4 191	7.37	29
5.	Ward 10	1 751	4 290	7.54	30
6.	Ward 11	5 295	2 523	4.44	18
7.	Ward 14	4 435	3 660	6.43	26
8.	Ward 15	11 068	2 427	4.27	17
9.	Ward 16	3 276	2 322	4.08	16
10.	Ward 18	3 280	3 981	6.99	28
11.	Ward 20	13 000	4 092	7.19	24
12.	Ward 29	3 427	3 393	5.96	24
13.	Ward 30	8 468	4 752	8.35	33
14.	Ward 32	3 380	1 575	2.77	11
15.	Ward 34	2 941	1 842	3.24	13
16.	Ward 35	4 290	1 521	2.67	11
17.	Ward 37	4 746	2 076	3.65	14
18.	Ward 38	3 080	2 115	3.72	15
19.	Ward 39	1 763	1 737	3.05	12
<b>Total</b>		<b>94 018</b>	<b>56 877</b>	<b>100</b>	<b>399</b>

Source: Author's compilation; Fetakgomo Tubatse IDP (2018)

Table 6.26 indicates sample size of each sampled ward in Intsika Yethu municipality. A total of 10 wards were randomly selected.

**Table 6.26: Sampled wards and sample size for Intsika Yethu Municipality**

No.	Ward number	Population (black African young adults aged 18–35 years)	Proportionate percentage (%)	Sample size
1.	Ward 1	1 335	7.93	8
2.	Ward 3	1 272	7.56	8
3.	Ward 5	1 587	9.42	9
4.	Ward 7	1 374	8.16	8
5.	Ward 8	1 980	11.76	12
6.	Ward 12	1 317	7.82	8
7.	Ward 13	1 569	9.32	9
8.	Ward 14	3 186	18.92	19
9.	Ward 16	1 704	10.12	10
10.	Ward 18	1 512	8.98	9
<b>Total</b>		<b>16 836</b>	<b>100</b>	<b>101</b>

Source: Author's compilation; Intsika Yethu IDP (2019)

The next section discusses the process of data collection.

## **6.7 DATA COLLECTION**

One of the most far-reaching decisions a researcher must make is the way in which data will be collected. According to Gillis and Jackson (2002), data collection is a systematic process of obtaining information from identified participants to answer research questions and achieve the research objectives. Data for the present study were collected from primary sources.

### **6.7.1 Data Collection Instrument**

To collect primary data, self-administered questionnaires were distributed by hand to respondents' homes. Fieldworkers were used, as the required sample was large. The questionnaires were self-administered. Questionnaires are commonly used to gather data in surveys, as they offer the benefits of standardised and open responses to a range of topics from a large sample. Surveys can be cheap, reliable, valid, quick, and easy to

complete (Cohen et al., 2018). The researcher designed a questionnaire based on reviewed literature on parental financial socialisation.

### **6.7.2 Questionnaire Design**

The questionnaire was structured in line with theoretical and empirical literature reviewed in this study. The researcher maintained consistency in the format of questions, and only one aspect was measured at a time. This included careful consideration of wording, ambiguity, unfamiliar terms and jargon, sequence, length, arrangement, and distribution structure, and the use of open-ended and closed-ended questions (Brink, 2012). Dhawan (2010) emphasises that, to make a questionnaire effective and to ensure quality of the replies received, a researcher should ensure that the proper item sequence is maintained, as this considerably reduces the chances of items being misunderstood.

The questionnaire contained items adopted from literature and formulated by the researcher, which were closed-ended. Respondents had to respond to items on a five-point Likert-type scale ranging from *Strongly disagree (1)* to *Strongly agree (5)*. Such items are easily standardised, simple to administer, and quick and relatively inexpensive to analyse. Five-point Likert-type scale was used in this study because it has been reported to produce higher reliabilities (Bhandarkar & Wilkinson, 2010). The questionnaire consisted of an information letter, a consent form, and six sections. Section A collected demographic data, Section B collected SES data, Section C focused on culture data, and Section D collected data on parenting style. Section E dealt with financial socialisation and, lastly, Section F collected financial literacy data. Questionnaire is attached as annexure B.

### **6.7.3 Reliability of Questionnaire**

Reliability in quantitative research encompasses dependability, consistency, and replicability over time, over instruments, and over groups of respondents. Thus, the research instrument must produce the same results under similar conditions when repeated by the same or other researchers (Cohen et al., 2018).

There are three principal types of reliability, namely stability, equivalence, and internal consistency (Cohen et al., 2018). Reliability in terms of stability and equivalence are similar, in that both require retesting of the questionnaire more than once over a period, using the same sample. The only difference is that, in equivalence, reliability might also be demonstrated if the equivalent forms of a test or other instrument yield consistent results if applied simultaneously to matched or similar samples. This can be achieved by calculating correlation coefficient for pre-tests and post-tests, either for the whole test or for sections of the questionnaire using the Spearman test, the Pearson test, or t-test (Cohen et al., 2018). The challenge with these types of reliability tests is that they are time-consuming and expensive.

The most common way of assessing reliability is internal consistency, where reliability may be achieved through the split-half method and calculated using the Cronbach alpha. These methods measure the extent to which individual statements are measuring the same construct. Cronbach's alpha was used to measure reliability, as it is the most widely used reliability measure of internal consistency (VanderStoep & Johnson, 2009). It is also referred as the *alpha coefficient of reliability*, and provides a coefficient of inter-item correlations, i.e., the correlation of each item with the sum of all the other relevant items, which is useful for multi-item scales (Cohen et al., 2018). The Cronbach alpha value generally increases when the correlations between the questions of the questionnaire increase. The alpha value can lie between negative infinity and 1 ( $-\infty < \alpha < 1$ ). The interpretation of Cronbach's alpha used in the present study was that of Cohen et al. (2018) and is shown in Table 6.27.

**Table 6.27: Interpretation of Cronbach's alpha**

<b>Cronbach's alpha</b>	<b>Internal consistency</b>
> 0.90	Very highly reliable
0.80 – 0.90	Highly reliable
0.70 – 0.79	Reliable
0.60 – 0.69	Marginally/minimally reliable
< 0.60	Unacceptably low reliability

Source: Cohen et al. (2018)

As indicated in Table 6.27, a high alpha is evidence that the items measure an underlying construct. A score of more than 0.7 is usually acceptable and indicates that the items in the test are highly correlated, while a value of 0.6 or less indicates unsatisfactory internal consistency reliability (Cohen et al., 2018). The results of the reliability measures performed on the revised questionnaire (adapted based on piloting results) were deemed acceptable. The test results are presented in Chapter 7, section 7.3.

#### **6.7.4 Validity of Questionnaire**

Validity of survey refers to conceptual and scientific soundness. There are several types of validity, but the main aim is to enhance the accuracy of the results by addressing confusing variables and ensuring that the research instrument measures what is required to measure, in order to enhance confidence in the results (Graziano & Raulin, 2010).

In the present study, face validity, content validity, and construct validity were assessed. To ensure face validity, the questionnaire was designed based on the objectives of the study and submitted to academics and experts in financial literacy for comment. Their inputs were reviewed and, where appropriate, the questionnaire was revised to incorporate their views (Rubin & Babbie, 2011). Content validity was assessed to determine whether the statements covered the entire scope of the concept under study. This included using the results of the pilot study to amend the questionnaire to ensure clarity and completeness. To further enhance validity, construct validity was measured, which is the extent to which a set of items actually measure the construct those items were designed to measure (Hair Black, Babin & Anderson, 2014). This was done using EFA and confirmatory factor analysis (CFA).

EFA establishes whether the data are suitable for factor analysis by reducing a large set of variables or scale items to a smaller and manageable number of factors, to ensure that the items measure what they are supposed to measure (Hair et al., 2014). EFA was used in the present study because primary data were collected. This was appropriate because new and different factors that are not expected are likely to emerge from primary data during the extraction process (Hair et al., 2014). EFA is appropriate when there are limited studies on a topic being investigated. There are very few studies on financial socialisation

and financial literacy in South Africa; hence, it was difficult to form expectations about the structure of the factors. CFA was conducted to test whether a specified set of constructs was influencing responses in a predicted way. This was done by testing a found set of factors against a hypothesised model of groupings and relationships (Cohen et al., 2018; Fabrigar & Wegener, 2011).

CFA was used because it produces many goodness-of-fit measures for model evaluation (Albright & Park, 2009). SEM was used to test the results of the EFA against the model to identify the fit, because CFA is a special case of SEM and corresponds to the measurement model of SEM (Albright & Park, 2009). The results of the validity measures were acceptable. The results of the EFA are presented in Chapter 7, section 7.6.

### **6.7.5 Pre-testing of Questionnaire**

To enhance reliability, a pilot study was conducted to pre-test the questionnaire before it was distributed to the respondents. A pilot study is a small-scale research project that collects primary data from respondents similar to those who will participate in the study, to pre-test the questionnaire. The purpose of pre-testing is to identify problems with the questionnaire and gain knowledge on the field conditions to determine a suitable length for the questionnaire and the sequence of the items, and to examine the quality of the individual items, scales, and instructions. The aim is to ensure that the items are clear, relevant, complete, and consistent, and to determine the amount of time required to respond to the items (Rubin & Babbie, 2011).

In pre-testing questionnaire, some changes had to be made to the original data collection procedure due to the Covid-19 regulations and Unisa's guidelines for research during the pandemic. Instead of printed questionnaires distributed to respondents at their homes, the questionnaires were converted to an online format and sent to respondents through email and *WhatsApp* for completion. Respondents in the pilot study were of a similar profile as the respondents in the main study. The researcher recruited individuals from his *WhatsApp* contacts list who were between the ages of 18 and 35 to complete questionnaire, and also requested some respondents to forward the link to their friends and family members who may be interested in participating.

A total of 40 responses were received. Some respondents also provided feedback on the nature of questionnaire. They indicated that it was too long, that some questions were not clear, and that certain financial terms confused them. The average time to complete the questionnaire was recorded as 30 minutes, which was too long and needed the researcher's attention. The questionnaire was refined to ensure that it was concise and clear, and to ensure that financial terms were written in simple language. This process helped to ensure consistency, easy readability, and logical sequencing of the items. The statistician, after analysis of the pilot data, also provided input, whereafter the questionnaire was finalised.

#### **6.7.6 Fieldworkers**

Fieldworkers were used to collect the data. The primary role of the fieldworkers was to distribute electronic copies of questionnaires or an email the link to respondents, explain the importance of the study to the respondents, and clarify any issues relating to the study. The minimum requirement to be considered a fieldworker was Grade 12, general knowledge of the area, and fluency in the language spoken in the area. In Intsika Yethu, the language is IsiXhosa, while in Fetakgomo Tubatse, the language Sepedi. StatsSA was approached to assist with recruiting fieldworkers whom the organisation had used in the past for fieldwork such as censuses. Eight fieldworkers were selected from StatsSA's database and trained to collect data from each municipality. They were familiarised with the questionnaire, the consent form, and the participant information sheet, and instructed on how to introduce themselves to respondents and present the objectives of the study. To limit travelling and accommodation expenses, selected fieldworkers were recruited from Fetakgomo Tubatse and Intsika Yethu. These fieldworkers were known in the area, which assisted in data collection, as they were trusted in their communities. This may have resulted in more honest responses from respondents, enhancing the quality of the data collected.

#### **6.7.7 Data Collection Procedure**

When planning the data collection process, the researcher is guided by five important questions: What? How?, Who?, Where?, and When? (Brink et al., 2018). Surveys are the

most widely used method of data collection in quantitative research and are conducted on a continuum ranging from a small scale to a large scale (Adams et al., 2014). This study conducted a survey to collect primary data using questionnaire.

The data were collected during alert Level 1, announced by the president, which permitted travel between provinces and home visits; thus, fieldworkers were allowed to visit respondents at their homes. Social distancing was maintained at all times during data collection. To reduce the possibility of transmitting Covid-19, online questionnaires were used instead of hard copies. Fieldworkers used their own cell phone devices to send links to respondents' cell phones via SMS, *WhatsApp* or using a Bluetooth connection.

Respondents who were comfortable participating in the study were asked their cell phone number so that the link could be sent to them. After sending the link, fieldworkers deleted the respondents' phone numbers from their devices. Some respondents preferred to using Bluetooth, so that they did not have to provide their cell phone numbers. Some respondents raised concerns with regard to network data usage on their cell phones, with others indicating that they did not have network data. These respondents were excluded from the study, as, due to budget constraints, it was not possible to provide respondents with network data.

Data were collected for a period of four months. A total of 600 links and online copies of questionnaire were sent to respondents by fieldworkers for completion. This was done considering the desired sample size of 500 for this study. The amount was deemed appropriate to accommodate unusable questionnaires and to enable the anticipated analysis methods.

## **6.8 DATA ANALYSIS**

Data analysis is a process of transforming collected information into results. Appropriate tools must be used to obtain insights into the research problem, to achieve the research objectives of the study (Brink, 2012). In the present study, the Statistical Package for the Social Sciences (SPSS) and Analysis of Moment Structures (AMOS), both Version 26, were used to analyse data. Descriptive statistics provided frequencies, percentages, central tendencies, and measures of dispersion. Inferential statistics were conducted in

the form of factor analysis, correlation analysis, hypothesis testing, difference testing, regression analysis, and SEM.

### **6.8.1 Descriptive Statistics**

Descriptive statistics describe and summarise the characteristics of the sample without making inferences or determining casual relationships. Descriptive statistics yield frequency distributions, percentages, central tendency, and measure of dispersion or variability (Verma, 2013). Frequency distribution is the number of instances or observations or occurrences of a particular data value in a class or category and indicates how the data are distributed over various categories. The percentage indicates the frequency distribution proportionate to 100. Descriptive statistics that measure central tendency include mean, median, and mode, while the most commonly used measures of dispersion are standard deviation, skewness, and kurtosis (Verma, 2013).

The mean is the average score of the sample. Mode is the score that occurs most frequently in a set of data. Median is the middlemost score in the data set arranged in order of magnitude (Cohen et al., 2018). Standard deviation is a measure of the dispersal or range of scores clustered around the mean value. Skewness measures how far the data are asymmetrical in relation to a normal curve of distribution (Verma, 2013). A normal distribution curve can be either positive or negative. In a positively skewed curve, the median is greater than the mode, whereas in a negatively skewed curve, the median is lower than the mode (Pallant, 2016).

Kurtosis measures how peaked a distribution is and how steep the slope or spread of data is around the peak. A kurtosis value can be zero, positive, or negative. A zero-value kurtosis indicates a normal distribution, whereas a positive kurtosis value indicates that the observations cluster more around the mean value and have a longer tail. A negative value of kurtosis indicates that the observations cluster less around the mean and have a shorter tail (Verma, 2013; Pallant, 2016; Cohen et al., 2018). Some of these descriptive statistics were performed in the present study.

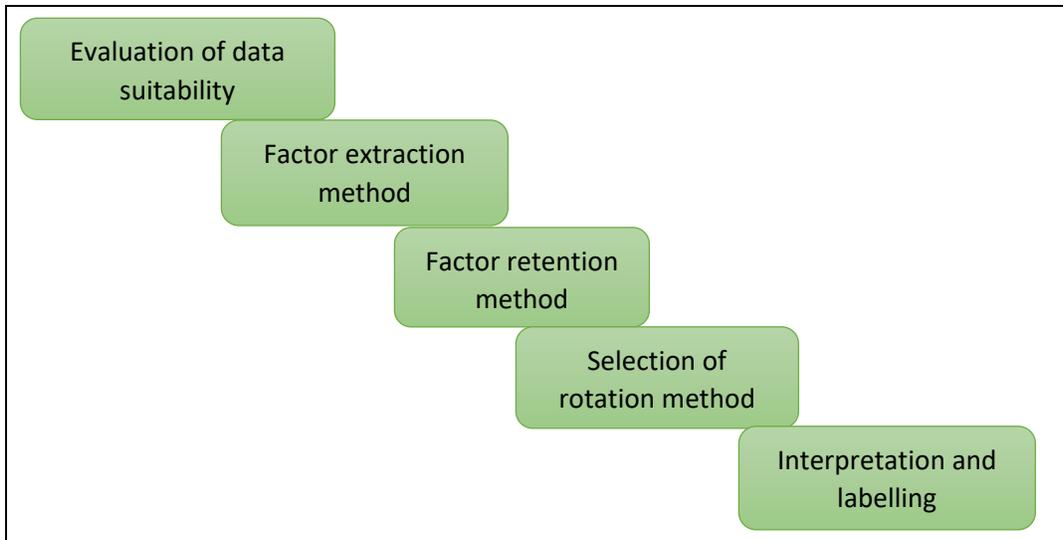
## 6.8.2 Factor Analysis

Factor analysis is a statistical technique applied to a single set of variables when the researcher is interested in discovering which variables in the set form coherent subsets that are relatively independent of one another. Variables that are correlated with one another but largely independent of other subsets of variables are combined into factors that reflect underlying processes that have created the correlations amongst the variables (Tabachnick & Fidell, 2013). The overall objectives of factor analysis are data summarisation and data reduction. Factor analysis is used in two data analytic contexts, exploratory context, which is to try to discover a structure and a confirmatory manner designed to confirm or negate the hypothesised structure. Thus, there are two types of factor analysis, namely EFA and CFA. This study used EFA to explore the possible underlying factor structure of a set of observed variables. EFA is discussed in the next section.

### 6.8.2.1 Exploratory factor analysis

Exploratory factor analysis (EFA) is usually performed in the early stages of research. It is a tool for consolidating variables and generating hypotheses about underlying processes. Additionally, it seeks to describe and summarise data by grouping together variables that are correlated (Tabachnick & Fidell, 2013). In conducting EFA, the researcher has no expectations of the number or nature of the variables. Assumptions underlying EFA are interval or ratio level of measurement, random sampling, a linear relationship between observed variables, a normal distribution, a bivariate normal distribution, and multivariate normality (Suhr, 2000; Moutinho & Hutcheson, 2011). The aim of conducting EFA in the present study was to identify relationships between *Parental financial socialisation* variables and *Financial literacy*.

EFA is comprised of five steps, namely evaluation of data suitability, factor extraction method, factor retention method, selection of rotation method, and interpretation and labeling (Costello & Osborne, 2005; Williams, Brown & Onsmann, 2010; Taherdoost, Uddin & Jalaliyoon, 2014). Figure 6.20 illustrates the steps in conducting EFA.



**Figure 6.20: Exploratory factor analysis process**

Source: Taherdoost et al. (2014)

These steps are discussed in detail below.

### **Step 1: Evaluation of data suitability**

Researchers have to determine the adequacy of the data to conduct EFA. To determine this, researchers may use sample size, factorability of the correlation matrix, Bartlett's test of sphericity, and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Taherdoost et al., 2014). Sample size has generated much debate amongst scholars, and there is no agreement on an adequate size to conduct EFA (Hogarty, Kromrey, Ferron & Hines, 2004). Some suggest that sample-to-variable ratio can be used, where researchers could determine how many participants are required for each variable. This ranges from 3:1, 6:1, 10:1, 15:1, and 20:1. However, this strategy has also received criticism (Williams et al., 2010).

Comrey (1973) stated that a sample size of 100 is poor, 200 is fair, 300 is good, 500 is very good, and 1 000 or more is excellent. Tabachnick and Fidell (2013) suggest that at least 300 cases are needed for factor analysis. Hair et al. (2014) assert that researchers would generally not factor analyse a sample of fewer than 50 observations; the sample size should preferably be 100 or larger. Others have argued that the nature of data determines the adequacy of the sample size; thus, a study with most factors defined by

many indicators is likely to yield high communalities, making the sample size irrelevant. Even small sample size of between 100 to 200 could be adequate (MacCallum, Widaman, Zhang & Hong, 1999; Horgarthy et al., 2004).

The present study's sample size was 500, which was well within the range of the recommendations. Factorability of the correlation matrix should also be used in evaluation of data suitability. It displays the relationships between individual variables, and is commonly used by researchers (Taherdoost et al., 2014). A correlation matrix for correlation coefficient should be over 0.30 (Tabachnick & Fidell, 2013). A loading of 0.30 indicates that the factors account for approximately 30% of the relationship within the data, or that a third of the variables share too much variance. It is impractical to determine if the variables are correlated with each other or the dependent variable (Williams et al., 2010). A guideline by Hair, Anderson, Tatham and Black (1995) proposes that a correlation coefficient of  $\pm 0.30$  is minimal,  $\pm 0.40$  is important, and  $\pm 0.50$  is practically significant. Thus, a correlation coefficient of above 0.50 is recommended.

Other methods of determining the appropriateness of EFA are Bartlett's test of sphericity and the KMO measure of sampling adequacy. Bartlett's test of sphericity provides the statistical significance that the correlation matrix has significant correlations amongst variables. It should be significant ( $p < .05$ ) for EFA to be suitable. The KMO measure of sampling adequacy ranges from 0 to 1, reaching 1 when each variable is perfectly predicted, without error, by other variables.

The KMO measure is interpreted as follows: 0.80 or above is meritorious, 0.70 to 0.79 is middling, 0.60 to 0.69 is acceptable, 0.50 to 0.59 is miserable, and below 0.50 is unacceptable (Hair et al., 2014). According to Williams et al. (2010), a value of .50 is considered suitable and adequate for analysing EFA output. However, literature mainly recommends a KMO value of .60 or higher (Pallant, 2016; Cohen et al., 2018).

## **Step 2: Factor extraction**

Factor extraction methods are categorised into component analysis and common factor analysis. Component factor analysis is used to extract maximum variance from the data set for each component, thus reducing a large number of variables to a smaller number

of components (Tabachnick & Fidell, 2013). It is most appropriate when data reduction is a primary concern, and the focus is on the minimum number of factors needed to account for the maximum portion of the total variance presented in the original set of variables. Specific and error variance represent a relatively small proportion of the total variance (Hair et al., 2014).

The most commonly used method of component factor analysis is principal component analysis (PCA) (Thompson, 2004). Common factor analysis is used primarily to identify underlying factors or dimensions that reflect what the variables have in common. It is most appropriate when the primary objective is to identify the latent dimensions or constructs represented in the original variables, and the researcher has little knowledge of the amount of specific and error variance, and therefore wishes to eliminate this variance (Hair et al., 2014). The most-used method in common factor analysis is principal axis factoring (PAF) (Henson & Roberts, 2006). Ideally, common factor analysis is a confirmatory technique, whereas component analysis is an exploratory technique (Widaman, 1993).

There are other varieties of extraction methods, including image factoring, maximum likelihood (ML), alpha factoring, unweighted least squares (ULS), generalised least squares (GLS), and canonical, and each of these methods provides a different solution. The only thing in common is that they define some measure of fit, which is then maximised (Krable, 2017). Information on the relative strengths and weaknesses of these methods is scarce, and often only available in obscure references (Costello & Osborne, 2005). There is disagreement on which methods are effective. Some indicate that PAF is preferable to PCA, ascribing the popularity of PCA to its default status in most of software packages. Whether to use PCA or PFA is fiercely debated amongst analysts, although the practical differences between the two are often insignificant, particularly when the variables have high reliability (Thompson, 2004; Williams et al., 2010). PFA and ML are recommended when the data violate the assumption of multivariate normality (DeCoster, 1998; Costello & Osborne, 2005). Moreover, ML is more useful for CFA (Yong & Pearce, 2013). Pett, Lackey, and Sullivan (2003) suggest using PCA in establishing preliminary solutions in EFA. PCA is also recommended when no prior theory or model exists. In the

present study, PCA was used because it was appropriate to reduce the data to a manageable set or ML, and it allowed for SEM, which was used to confirm model fit.

### **Step 3: Factor retention**

After extraction, the researcher must decide how many constructs to retain for rotation. Factor retention is the most important step in EFA, because if there is evidence of robustness across alternatives, EFA needs to balance parsimony with adequately representing underlying correlations. Thus, its utility depends on it being able to differentiate major factors from minor ones. There is also conceptual and empirical evidence that both under extraction and overextraction are substantial errors that affect results (Tahersdoost et al., 2014).

An exact quantitative basis for deciding the number of factors to extract has not been developed (Hair et al., 2014). A number of criteria are available to assist in these decisions, but they do not always lead to the same or even similar results. However, the simultaneous use of multiple decision rules is appropriate, and often desirable (Thompson & Daniel, 1998). Factor retention methods to be considered in taking a decision on which factors to retain are cumulative percent of variance extracted, Kaiser's criterion (eigenvalue > 1 rule) (Kaiser, 1960), the scree test (Cattell, 1966), and parallel analysis (Horn, 1965). The eigenvalue > 1 rule and the scree test are commonly used (Williams et al., 2010). Unfortunately, parallel analysis, although accurate and easy to use, is not available in the most frequently used statistical software (Costello & Osborne, 2005). Therefore, this study used the eigenvalue > 1 rule as factor retention method.

No absolute threshold has been adopted for the eigenvalue > 1 rule, but the factoring procedure should not be stopped until the extracted factors account for at least 95% of the variance, or until the factor with eigenvalue < 1 (Hair et al., 2014). However, explained variance as low as between 50% and 60% is commonly acceptable (Hair et al., 2014; Pett et al., 2003). The scree test is another popular method. It involves the visual exploration of a graphical representation of the eigenvalues for breaks or discontinuities. The number of data points above the break, not including the point at which the break occurs, is the number of factors to retain (Taherdoost et al., 2014). According to Williams

et al. (2010), interpreting scree plots is subjective, requiring researcher judgement, and which factors to retain is often open for debate. However, subjectivity is reduced when the sample size is large and communalities values are high, which is why the scree test is widely used in research (Pett et al., 2003; Costello & Osborne, 2005).

#### **Step 4: Selection of rotation method**

The next decision is the rotation method, which aims to simplify and clarify the data structure by maximising high item loadings and minimising low item loadings (Williams et al., 2010; Yong & Pearce, 2013). Thus, it helps in deciding how many variables should be analysed. There are two major categories of rotation: orthogonal rotation, which produces uncorrelated factors, and oblique rotation, which produces correlated factors (DeCoster, 1998; Williams et al., 2010; Taherdoost et al., 2014). Orthogonal rotation methods produce more easily interpretable results and is slightly simpler than the oblique method. It offers several options for rotation, namely quartimax, varimax, and equamax. Varimax is believed to be the best orthogonal rotation method (DeCoster, 1998).

Oblique methods are more accurate when the data do not meet the priori assumptions and are more complex than orthogonal methods (Costello & Osborne, 2005). There is no widely preferred method of oblique rotation; all tend to produce similar results, with the most commonly used being quartimin, direct oblimin, promax, and the Harris-Kaiser orthoblique (Fabrigar, Wegener, MacCallum & Strahan, 1999; Taherdoost et al., 2014). However, Krable (2017) indicates that promax is the most frequently used oblique rotation method. In the present study, the orthonogal varimax rotation was used, as it is the most commonly used rotation technique in factor analysis. The results are presented in Chapter 7, section 7.6.

#### **Step 5: Interpretation and labelling**

Interpretation is the process of examination to select variables that are attributable to a factor and then giving that factor a name or theme (Williams et al., 2010). The factor-loading matrix is used, as it contains the factor loading of each variable on each factor. Factor loadings of  $\pm 0.30$  to  $\pm 0.40$  are minimally acceptable; values greater than  $\pm 0.50$  are

generally considered necessary for practical significance (Hair et al., 2014). This study retained a minimum factor loading of 0.30 for interpretation.

The labelling of factors is a theoretical, subjective, and inductive process (Pett et al., 2003). The meaningfulness of latent factors is ultimately dependent on the researcher's definition (Henson & Roberts, 2006). Therefore, the researcher with a strong conceptual foundation for the anticipated structure and its rationale has the greatest chance of success (Hair et al., 2014). It is significant that labels of factors reflect the theoretical and conceptual intent.

### **6.8.3 Correlation Analysis**

Correlation analysis is a statistical test that examines the strength of association between two variables by calculating a correlation coefficient. There are two categories of correlation estimators: parametric and non-parametric correlation. Parametric correlations use interval and ratio data, have known assumptions and fixed parameters and are based on statistical distribution. The estimator commonly used in parametric correlation estimation is the Pearson product–moment correlation coefficient. On the other hand, non-parametric estimators use nominal and ordinal data, do not have known assumptions and parameters.

Spearman's and Kendal's correlation coefficients are non-parametric estimators (Saunders et al., 2019). The estimators discussed so far, although widely used, have limitations when there are more than two variables involved in the relationship. Partial correlation and multiple correlations were introduced to deal with this limitation. The partial correlation coefficient is the measure of the relationship between two variables after eliminating the effect of one or more independent variables. The multiple correlations coefficient is a measure of a relationship between a group of independent variables and a dependent variable. It is important to note that partial correlation and multiple correlations are derived from, and extensions of, the Pearson product–moment correlation (Verma, 2013). In the present study, the Pearson product–moment correlation was used, as it is the most widely used parametric estimator for correlation analysis, and conforms to interval data (Dwyer, Gill & Seetaram, 2012).

The Pearson product–moment correlation coefficient is the one of the well-known parametric measures of the association between two continuous variables measured on an interval or ratio scale. It is represented by  $r$ , which ranges from -1 to +1, and it is significant at a  $p$ -value of 0.05 and 0.10 (Dwyer et al., 2012). It is intended to answer three questions: First, is there a relationship between the two variables? If the answer is ‘yes’, then two more questions follow. The second question is: What is the direction of the relationship? The third question is: What is the magnitude of the association? (Cohen et al., 2018). A value of +1 represents a positive relationship. This means that two variables are precisely related, and that, as the value of one variable increases, the value of the other variable will also increase. A value of -1 represents a perfect negative correlation. This means that two variables are related, and, as the value of one variable increases, the value of the other decreases (Saunders et al., 2019). The guidelines for interpreting correlation coefficients, adopted from Cohen et al. (2018) and Saunders et al. (2019), are illustrated in Table 6.28.

**Table 6.28: Interpretation of correlation coefficients**

<b>Correlation coefficient</b>	<b>Description</b>	<b>Direction</b>
0.00	No linear relationship	Negative/Positive
0.10 – 0.29	Small linear relationship	Negative/Positive
0.30 – 0.49	Medium linear relationship	Negative/Positive
0.50 – 1.0	Large linear relationship	Negative/Positive

Source: Cohen et al. (2018); Saunders et al. (2019)

There are cautions to be borne in mind when interpreting a correlation coefficient. A coefficient is a simple number and must not be interpreted as a percentage. A correlation does not imply a cause-and-effect relationship between two variables. Furthermore, a correlation is not to be interpreted in any absolute sense, meaning a correlation value of a given sample of a population may not necessarily be the same as that found in another sample from the same population (Cohen et al., 2018). The present researcher used Pearson’s correlation coefficient to test research hypotheses H6 and H7 as they test the relationship between one independent variable and multiple dependent variables.

#### **6.8.4 Hypothesis Testing**

A hypothesis is an assertion or statement about certain characteristics of the population. If the characteristics can be quantitatively measured by parameters such as mean or variance, then the hypothesis based on these parameters is parametric. If the hypothesis is qualitatively measured, it is nonparametric (Verma, 2013). A hypothesis can be either directional or nondirectional. A directional hypothesis states the kind of difference or relationship between two conditions or two groups of participants. A non-directional hypothesis simply predicts that there will be a difference or relationship between two groups of participants (Cohen et al., 2018). In the present study, both directional and non-directional hypotheses were stated; thus, some hypotheses state the nature of the difference or relationship, while others merely state that there is a difference.

Hypothesis testing is the testing of a proposition about the population using data from a sample (Kothari, 2004). There are four main steps involved in testing a hypothesis. The steps, as outlined by Verma (2013) and Kothari (2004), are as follows:

##### **Step 1: Making a formal statement**

In this step, a hypothesis is stated with a null and alternative hypothesis for each parameter to be investigated. The null hypothesis, denoted by  $H_0$ , is a hypothesis of no difference, and is a statement about the population parameter that is assumed to be true. The alternative hypothesis, also known as a research hypothesis and denoted by  $H_1$ , is a hypothesis of difference between the population parameter and a sample value. It is a statement that directly contradicts the null hypothesis by indicating that the statement is false. Table 6.29 lists the hypotheses of the present study, together with the corresponding statistical methods employed in testing.

**Table 6.29: Research hypotheses**

<b>Hypothesis</b>	<b>Statistical methods</b>
<b>H1:</b> Young black African adults are financially literate.	Descriptive statistics
<b>H2:</b> Young black African adults are financially socialised by their parents.	Descriptive statistics
<b>H3:</b> There is a significant difference in parental financial socialisation across parental SES (parental income level and parental level of education).	ANOVA
<b>H4:</b> There is a significant difference in parental financial socialisation according to the child's gender.	T-test
<b>H5:</b> There is a significant difference in parental financial socialisation according to parental gender.	ANOVA
<b>H6:</b> There is a significant positive relationship between culture and parental financial socialisation.	Correlation analysis
<b>H7:</b> There is a significant positive relationship between parenting style and parental financial socialisation.	Correlation analysis
<b>H8:</b> There is a significant positive relationship between parental financial socialisation and financial literacy.	Multiple regression
<b>H9:</b> The relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).	Moderated regression analysis
<b>H10:</b> The relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).	Moderated regression analysis

Source: Author's own compilation

## **Step 2: Set the decision criteria**

The hypotheses are tested on a pre-determined level of significance and, as such, should be specified. The level of significance refers to a criterion of judgement upon which a decision is made regarding the value in a null hypothesis. In practice, the level of significance is set at 1%, 5%, or 10%. Generally, the level of significance is set at 5%. However, the level of significance should be adequate for the context of the study. The level of significance for the present study was set at 5%. A null hypothesis was thus rejected when the probability of obtaining a sample mean was less than 5%.

### **Step 3: Estimate the test statistic**

The test statistic is a mathematical formula that is used to determine the likelihood of obtaining sample outcomes if the null hypotheses were true. The value of the test statistic is used to make a decision regarding accepting or rejecting the null hypothesis. The value of the test statistic is used to make a decision in Step 4.

### **Step 4: Make a decision**

The value of the test statistic is used to make a decision about the null hypothesis. The decision is based on the probability of obtaining a sample mean, given that the value stated in the null hypothesis is true. The null hypothesis is rejected if the probability of obtaining a sample mean is less than 5% when the null hypothesis is true. The null hypothesis is accepted if the probability of obtaining a sample mean is greater than 5% when the null hypothesis is true. The probability of obtaining a sample mean, given that the value stated in the null hypothesis is true, is indicated by the  $p$ -value. The  $p$ -value of obtaining a sample outcome is compared to the level of significance set in Step 2. The  $p$ -value varies between 0 and 1 and can never be negative. Significance describes a decision made concerning a value stated in the null hypothesis. When the null hypothesis is rejected, there is significance, while, when the null hypothesis is accepted, there is no significance. When the  $p$ -value is less than or equal to 5% ( $p \leq 0.05$ ), the null hypothesis is rejected. When the  $p$ -value is greater than 5% ( $p > 0.05$ ), the null hypothesis is accepted. The decision to reject or accept the null hypothesis must be made with caution, to avoid Type I or Type II errors. A Type I error is the probability of rejecting a null hypothesis that is actually true. A Type II error is the probability of accepting a null hypothesis that is actually false. The researcher directly controls the probability of a Type I error by stating the level of significance, called *alpha* ( $\alpha$ ). Alpha is the largest probability of committing a Type I error, leading to rejection of the null hypothesis. The alpha criterion is set at 0.05 ( $\alpha = 0.05$ ) and is compared to the  $p$ -value. When the probability of a Type I error is less than 5% ( $p < 0.05$ ), the null hypothesis is rejected; otherwise, it is accepted.

## 6.8.5 Difference Testing

Difference testing is an important step in understanding data. It is a statistical test to investigate differences amongst variables, means, and groups. There are many difference testing statistics, categorised into parametric and non-parametric statistics. Which statistic to use depends on the nature of data, whether the data are parametric or non-parametric, groups are related or independent, or the difference is between two groups or more than two groups (Cohen et al., 2018). Although non-parametric statistics can be applied to parametric data, parametric statistics cannot be applied to non-parametric data (Kothari, 2004). The data of the present study were parametric in nature, also known as quantitative data, and relied on parametric statistics. The parametric statistics used in the present study were t-tests and ANOVA.

### 6.8.5.1 T-test

The t-test provides a statistical test of significance. It is used in a situation where the population is normally distributed and population variance is not known, to discover whether there are statistically significant differences between the means of two groups (Cohen et al., 2018). There are two types of t-tests: the independent samples t-test and the paired samples t-test. The independent samples t-test is used to compare the mean scores of two different groups of people or conditions and assumes that one variable is categorical, and one is continuous, usually measured on an interval or ratio scale. Paired samples t-tests are used to compare the mean scores for the same group of people on two different occasions and require both variables to be in interval and ratio scale (Dwyer, et al., 2012). Independent samples t-test were used in the present study.

Levene's test for equality of variance is used in independent sample t-tests to test whether the variances of scores for two groups are the same. It provides a guide as to which row of the two to use during testing, based on the significance level. The two rows are labelled *equal variance assumed* and *equal variance not assumed* (Cohen et al., 2018). If the significance level value of Levene's test is larger than .05, the first row in the table must be used, which is *equal variance assumed*, but if the significance level of Levene's test is  $p = .05$  or less, the variances of the two groups are not the same, and the second row in

the table must be used (*equal variances not assumed*). Having discovered the row to follow, the statistically significant difference between groups must be established by comparing the significance level value with the  $p$ -value. If the significance level value is equal to or less than the  $p$ -value, there is a statistically significant difference between the means of the two groups, but if the value is above  $p$ , there is no statistically significant difference between the means of the two groups (Cohen et al., 2018; Pallant, 2016).

#### **6.8.5.2 Analysis of variance**

Analysis of variance (ANOVA) can be regarded as an extension of the independent sample t-test. It compares the means of more than two groups at a time by drawing inferences about the population means and analysing sample variances. There are two sources of variance: the variation between the groups and the variation within each of the groups (Dwyer et al., 2012). ANOVA is categorised into one-way ANOVA, two-way ANOVA, and repeated measures of ANOVA. One-way ANOVA is used when there is only one independent variable that has a number of different levels, groups, or conditions, and will indicate whether there are significant differences in the mean scores on the dependent variable across the groups. Two-way ANOVA is used when there are two independent variables (Pallant, 2016). This technique allows for simultaneously testing for the effect of each independent variable on the dependent variable and identifies any interaction effect. An interaction effect occurs when the effect of one independent variable on the dependent variable depends on the level of the second independent variable. Repeated-measures ANOVA is used when measuring the same participants under different conditions or at different points in time (Pallant, 2016). The test statistic of ANOVA is F-ratio, which represents the variance between the groups divided by the variance within the groups (Dwyer et al., 2012). A large F-ratio indicates that there is more variability between the groups caused by the independent variable than there is within each group (Pallant, 2016). The F-ratio follows the F-distribution with degrees of freedom under the null hypothesis. A significant F-value means the null hypothesis is rejected, indicating that at least two of the population means are unequal (Dwyer et al., 2012). However, a significant F-value does not show which means are significantly different from each other. To determine this, post-hoc tests such as Tukey's honest significant

difference test, Games-Howell test, Bonferroni, and Scheffe test must be used to test the differences (Cohen et al., 2018; Pallant, 2016; Dwyer et al., 2012).

### **6.8.6 Regression Analysis**

Regression analyses, also known as causal analysis, are a set of statistical techniques that allow one to assess the relationship between one dependent variable and several independent variables (Tabachnick & Fidell, 2013; Kothari, 2004). The terms *regression* and *correlation* are used more or less interchangeably, although the term *regression* is often used when the intent of analysis is prediction, and *correlation* is used when the intent is simply to assess the relationship (Tabachnick & Fidell, 2013). Thus, regression analysis measures the causal relationship between two variables. To do so, an equation is developed by using data obtained on a dependent variable and several independent variables to estimate the relationship between dependent and independent variables by means of the ordinary least square method (OLS) (Verma, 2013). Multiple regression analysis and moderated regression analysis were used in the present study.

#### **6.8.6.1 Multiple regression analysis**

If the equation involves more than one independent variable, it is referred to as multiple regression analysis (Verma, 2013). The dependent variable in the regression equation is modelled as a function of the independent variables, corresponding parameters, and an error term (Pallant, 2016). The dependent variable is usually denoted by  $Y_1$ , whereas the independent variables are denoted as  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ , and so forth, depending on the number of independent variables. The unstandardised regression coefficient is represented by  $b$ , and the regression constant is represented by  $a$  in the regression equation. An example of multiple regression having four independent variables is:

$$Y_1 = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

The goal of regression is to arrive at the set of b-values (regression coefficients) for the independent variables that bring the Y-values predicted from the equation as close as possible to the Y-values obtained by measurement (Tabachnick & Fidell, 2013). Other sets of important values in addition to regression coefficients in regression analysis are r-

squared and  $p$ -values. Regression coefficients (beta) indicate the direction, either positive or negative, and the contribution of each independent variable to the dependent variable. A higher positive beta indicates a strong positive effect of independent variables on the dependent variable, whereas a negative beta shows a negative effect of the independent variables on the dependent variable (Cohen et al., 2018). The  $r$ -squared indicates the proportion of the total variance in the dependent variable that is explained by all the independent variables. The  $p$ -value shows statistically significant relationships if the  $p$ -values are less than 0.05, but if the  $p$ -values are greater than 0.05, there is no statistical significance (Cohen et al., 2018; Hair et al., 2014).

The use of regression analysis relies heavily on underlying assumptions that must be satisfied, which are: sample, multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals (Pallant, 2016). Sample assumption dictates that the measurements must be from a random sample. Multicollinearity exists when the independent variables are highly correlated ( $r = 0.9$  and above). This should be avoided, and such variables must be removed. Regression is sensitive to outliers, i.e., very high or very low scores, and extreme outliers must be removed. With regard to normality, linearity, homoscedasticity, and independence of residuals assumptions, the following are noted: the residuals should be normally distributed about the predicted dependent variable scores, the residuals should have a linear relationship with the predicted dependent variable, and the variance of the residuals about the predicted dependent variable scores should be the same for all predicted scores (Pallant, 2016; Cohen et al., 2018; Tabachnick & Fidell, 2013).

Regression is most commonly used with continuous variables measured in interval and ratio data (Pallant, 2016). In the present study, multiple regression analysis was used to test Hypothesis 8. This is because there are multiple independent variables and also multiple dependent variables. Hypothesis 8 states that there is a significant positive relationship between financial socialisation and financial literacy.

### **6.8.6.2 Moderated regression analysis**

Moderated regression analysis is used to detect how variables moderates the nature of a relationship between variables. It enables the relationships between independent and dependent variables to be linked to other independent variables (moderators). The moderating effect occurs when the level of the third variable influences the relationship between the independent variables and the dependent variables (Hair et al., 2014). The main objective of the moderation analysis is to measure and test the differential effect of the independent variable on the dependent variable as a function of the moderator. A moderator is a variable that alters the nature or strength of the relationship between an independent and an outcome variable (Baron & Kenny, 1986). A moderator or interaction variable may or may not have an effect on the dependent variable. Generally, interaction is said to occur when the effect of an independent variable (X) on a dependent variable (Y) varies across levels of a moderating variable (Z). The independent and moderator variables should not be theoretically related, as this would imply mediation (Baron & Kenny, 1986).

Interactions enable the extension of well-known relationships to contexts that the original research did not consider, and also help provide more detailed predictions about the relationships going beyond the simplistic argument of 'it depends' (Andersson, Cuervo-Cazurra & Nielsen, 2014). The arguments for a variable's moderating effect on the main relationship must be distinct from its direct effect on the dependent variable, and if there is a relationship between the moderator and dependent variable, the underlying theoretical mechanism linking them must differ from the theoretical mechanism that influences the main relationship (Andersson et al., 2014). The simple moderation analysis is appropriate when the moderator is expected to exert its effect on the specific structural path with the support of relevant theory. A simple moderation effect can be assessed by creating a moderated regression model that explains whether a moderator alters the strength and/or direction of the relationship between an independent variable and a dependent variable (Andersson et al., 2014).

In the present study, Hypotheses 9 and 10 were tested by conducting moderated regression analysis. Hypothesis 9 states that the relationship between parental financial

socialisation and financial literacy is moderated by social structural factors (parental SES). While Hypothesis 10 states that the relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).

### **6.8.7 Structural Equation Modelling**

Structural equation modelling (SEM) is a comprehensive statistical modelling tool for analysing multivariate data involving complex relationships between and amongst variables (Byrne, 2010). SEM was considered appropriate for the present study because it allows for testing of validity; integrates a variety of statistical procedures like correlation, multiple regression, and factor analysis; and can also test if the hypothesised model fit is as predicted (Nachtigall, Kroehne, Funke & Steyer, 2003). In this regard, Savalei and Benter (2010) argue that SEM merges multivariate regression and factor analysis.

The purpose of SEM is to examine a set of relationships between one or more independent variables and one or more dependent variables (Schumacker & Lomax, 2004). SEM has the capacity to test models overall, rather than coefficients individually, and has the ability to test models with multiple dependent variables, to include mediating variables, and to model error terms for all indicator variables. Another important aspect of SEM is that, as it considers potential errors of measurement in all variables, and when a hypothesised structural model shows model fit indices that are less than satisfactory, it allows specification searches to find better-fitting models to the sample variance-covariance matrix (Kline, 2005; Schumacker & Lomax, 2004).

SEM offers numerous advantages over conventional analysis, including greater flexibility regarding assumptions and inclusion of latent variables into the analyses. It allows the measurement of any combination of relationships by examining a series of dependent relationships simultaneously while considering potential errors of measurement amongst all variables (Kline, 2005). Compared to other multivariate techniques, SEM excels, and it has unique features. It adopts a confirmatory hypothesis-testing approach to the data, provides explicit modelling of measurement error in order to obtain unbiased estimates of the relationships between variables, incorporates both unobserved and observed

variables, and enables the modelling of complex multivariate relations and estimation of direct and indirect effects of variables under study (Bollen, 1989; Byrne, 2012). Moreover, SEM comprises both a measurement model and a structural model. The measurement model relates observed responses to latent variables and observed covariates, while the structural model moves from the relationship between latent constructs and their measured variables to the nature and magnitude of the relationship between constructs (Hair, Black, Babin, Anderson & Tatham, 2006).

Various types of SEM are used in research, namely path analytic (PA), CFA, structural regression (SR), and latent change (LC) (Raykov & Marcoulides, 2006). PA models are conceived in terms of observed variables and form an important part of the historical development of SEM. PA models employ the same underlying process of model testing and fitting as other SEM models. CFA models are commonly used to examine patterns of interrelationships amongst various constructs, with no specific directional relationships assumed between constructs. SR models build on CFA models by suggesting specific explanatory relationship amongst constructs and are often used to test proposed theories involving explanatory relationships amongst various latent variables. LC models are used to study change over time, and focus on patterns of growth and decline, or both, in longitudinal data (Raykov & Marcoulides, 2006; Teo, Tsai & Yang, 2013). CFA was used in the present because it allows for testing of hypotheses based on prior knowledge of the theory, empirical data, or both. This study did not rely heavily only on priori theoretical knowledge to employ CFA, but hypothesised models and empirical data were analysed using EFA.

The SEM process involves several steps to validate the measurement model in terms of assessing the relationship between hypothetic latent constructs, mainly through CFA and fitting the structural model by measuring the significance of the relationship between latent variables, which is often done through path analysis. These steps, which were followed in the present study are: model specification, model identification, model estimation, testing model fit, and model modification (De Carvalho & Chima, 2014). The steps are discussed next.

### **Step 1: Model specification**

Model specification is concerned with specifying a measurement model and structural model based on prior research and theory. This comprises a review of literature that substantiates selection of observed variables as indicators of latent variables, as well as theory behind testing the relations amongst the latent variables in a structural model (Schumacker & Lomax, 2016). The relationships amongst variables are represented by parameters or paths that are fixed, free, or constrained, which are specified through directional effects, covariances, and covariances, and communicated through diagrams, with arrowed lines connecting variables to indicate the direction of causal relationships (Teo et al., 2013).

### **Step 2: Model identification**

This step entails determining whether a unique value for each free parameter can be obtained from the observed data, depending on the choice of model and the specification of fixed, constrained, and free parameters (Teo et al., 2013). Three model identification types are possible: identified, under-identified, and over-identified. A model is identified if the degrees of freedom (df) are equal to or greater than 1. A  $df = 0$  indicates a saturated model; thus, all parameters are being estimated, which is also called a *just-identified model*. This type of model will always result in a perfect fit to the empirical data. This model is problematic, since there is no way one can really test or confirm the plausibility of a just-identified model. An under-identified model would have negative degrees of freedom, because more parameters are being estimated than distinct values in the covariance matrix. This should be looked at with scepticism, because the parameter estimates are most likely quite unstable. An over-identified model is the most desirable type of identification. It specifies fewer paths or variable relations, yet the model-implied variance matrix is close to the sample covariance matrix. This type of model indicates that there is more than one way to estimate the specified parameters (Schumacker & Lomax, 2016).

### **Step 3: Model estimation**

In estimation, the goal is to produce an estimated model-implied covariance matrix that resembles the estimated sample covariance matrix of the observed indicators, with the residual matrix being as little as possible. This involves determining the value of the unknown parameters and the error associated with the estimated value using several different estimation methods, such as ML, unweighted least squares (ULS), weighted least squares (WLS), generalised least squares (GLS), asymptotic distribution on free methods (ADF), and the chi-square test (Teo et al., 2013; Schumarker & Lomax, 2016).

In choosing the estimation method to use, one decides whether the data are normally distributed. ML is the widely used estimation method. It is default in many SEM software programs, because it is robust under a variety of conditions and is likely to produce parameter estimates that are unbiased, consistent, and efficient. If the observed variables are interval scaled and multivariate normal, then the ML estimates and chi-square test are appropriate. If the multivariate normality assumptions are met, using continuous variables that also meet the Pearson correlation assumptions, then the GLS method provides accurate parameters estimates and standard errors. If the data are messy, then WLS estimation is recommended, using an asymptotic variance-covariance matrix. ULS estimates have no distributional assumptions and are appropriate if observed variables are interval scaled. When normality is violated, the ADF method is recommended; however, ADF requires very large samples,  $n = 500$  or more, to generate accurate estimates (Bollen, 1989; Yuan & Bentler, 1998; Teo et al., 2013; Schumacker & Lomax, 2016).

The ML estimation method was used in the present study because it is quite robust against the violation of the normality assumptions and produces accurate estimates. Many software programs are used in SEM to estimate model parameter; in this study, AMOS was used to carry out ML estimation. Model estimation produces values that reveal the fitness of the model to the collected data and indicates how strong the hypothesised relationships between variables are (Yuan & Bentler, 1998).

#### **Step 4: Model evaluation or testing model fit**

There is an agreement that one should avoid reporting all fit indices that have been developed since the first days of SEM, but there is disagreement on which fit indices to consider for model evaluation (Schermelleh-Engel & Moosbrugger, 2003). This led to some researchers choosing those fit indices that indicate the best fit and ignoring others. Researchers have also been known to choose fit indices based on their frequency of use. Hooper, Coughlan, and Mullen (2008) caution against this, and indicated that reporting fit indices that indicate best fit only should be avoided at all costs, as it is essentially sweeping important information under the carpet. In addition, in reporting indices, going by what is most frequently used is not necessarily good practice, as some of these fit indices are often relied on purely for historical reasons, rather than for their sophistication.

Thus, evaluation of model fit in SEM is not a straightforward issue, because there is no single statistical significance test that identifies a correct model. Given the sample data and no golden rule, it is necessary to take multiple criteria into consideration and evaluate model fit on the basis of various measures simultaneously (Bollen & Long, 1993; Mueller, 1996; Schermelleh-Engel & Moosbrugger, 2003).

There are a number of fit indices available. Schumacker and Lomax (2016) classified these into inferential statistical evaluation and descriptive statistical evaluation. In inferential statistical evaluation, only the chi-square test is available, while, in descriptive statistical evaluation, three main classes of criteria exist, namely measures of overall model fit, measures based on model comparisons, and measures of model parsimony. The most widely used indices of measures of overall model fit are root mean squared error of approximation (RMSEA), root mean square residual (RMR), and standard root mean square residual (SRMR). Measures based on model comparisons are the normed fit index (NFI), the non-normed fit index (NNFI), also known as the Tucker-Lewis Index (TLI), comparative fit index (CFI), goodness-of-fit index (GFI), and adjusted goodness-of-fit index (AGFI). Measures of model parsimony are parsimony goodness-of-fit index (PGFI), parsimony normed fit index (PNFI), Akaike information criterion (AIC), consistent Akaike information criterion (CAIC), and expected cross-validation index (ECVI) (Schermelleh-Engel & Moosbrugger, 2003).

SEM relies on several statistical tests to determine the adequacy of model fit to the data. Hu and Bentler (1999) suggest threshold levels and a two-index presentation format, which should always include the SRMR with the NNFI (TLI), RMSEA, and the CFI, and emphasise that researchers must understand which indexes appear to work well with different samples sizes, types of data, and ranges of acceptable scores to decide on which indexes to use. Boomsma (2000) recommends chi-square, RMSEA, CFI, and SRMR, and also recommends reporting of the squared multiple correlations of each equation. McDonald and Ho (2002) found that the CFI, GFI, NFI, and NNFI are commonly reported indices. Kline (2005) advocates the use of the chi-square test, the RMSEA, the CFI, and the SRMR.

Generally, TLI, CFI, and RMSEA are preferable for one-time analyses (Schreiber, Nora, Stage, Barlow & King, 2006). Hooper et al. (2008) note that it is sensible to include the chi-square statistic and its degree of freedom and *p*-value, the RMSEA and its associated confidence interval, the SRMR, the CFI and one parsimony fit index, such as the PNFI. Based on these guidelines and recommendations this study included the following fit indices: model chi-square, GFI, CFI, RMSEA, SRMR, NFI, TLI. These indices were chosen because they are the most insensitive to sample size, model misspecifications, and parameter estimates (Hooper et al., 2008).

- **Model chi-square ( $X^2$ )**

The  $X^2$  test reveals the amount of difference between expected and observed covariance matrices. It is the only measure that has a direct statistical test as to its significance, and it forms the basis for many other goodness-of-fit measures (Hair et al., 2014). A value close to zero indicates little difference between the expected and observed covariance matrices. It also indicates that the probability level is greater than 0.05 (Hu & Bentler, 1998). The  $X^2$  assumes multivariate normality and is sensitive to sample size. Thus, as the sample size increases, so does the  $X^2$  value and is also likely to be higher when the number of observed variables increases. This relates to the problem that plausible models might be rejected (Schermelleh-Engel & Moosbrugger, 2003). Due to the restrictiveness of the model  $X^2$ , alternative indices to assess model fit have been developed. One example of

a statistic that minimises the impact of sample size on the model chi-square is the relative or normed chi-square ( $X^2/df$ ). Although there is lack of consensus regarding an acceptable ratio for this statistic, the recommendations range from as high as 5.0 to as low as 2.0 (Tabachnick & Fidell, 2013). In the present study, the relative  $X^2$  was used to minimise the impact of sample size on the model fit.

- **Goodness-of-fit statistic (GFI)**

The GFI was an early attempt to produce a fit statistic that was less sensitive to sample size (Hair et al., 2014). GFI is also considered an alternative to the  $X^2$ , and calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidell, 2013). This statistic ranges from 0 to 1, with larger samples increasing its value. Traditionally, the cut-off point of 0.9 was recommended, but when factor loadings and sample sizes are low, a higher cut-off of 0.95 is more appropriate (Miles & Shevin, 1998; Hooper et al., 2008). The sensitivity of this index and the often detrimental effect of sample size, together with the recent development of other fit indices, led to a decline in its use (Hooper et al., 2008; Hair et al., 2014). Given its historical importance, it is often reported in covariance structure analyses, but it should not be relied upon as a stand-alone index (Hooper et al., 2008).

- **Comparative fit index (CFI)**

The CFI is an incremental fit index and is a corrected version of the relative non-centrality index (Chen, 2007; Hu & Bentler, 1999). The CFI is equal to the discrepancy function adjusted for sample size. It ranges from 0 to 1, with a larger value indicating better model fit. Acceptable model fit is indicated by a CFI value of 0.90 or greater (Hu & Bentler, 1999; Schermelleh-Engel & Moosbrugger, 2003). The index is relatively independent of the sample size and yields better performance in studies with a small sample (Tabachnick & Fidell, 2013; Hu & Bentler, 1998).

- **Root mean square error of approximation (RMSEA)**

RMSEA is parsimony-adjusted index and one of the most widely used measures to correct for the tendency of the chi-square test to reject models with a large sample or a large number of observed variables. It better represents how well a model fits a population, not just a sample used for estimation. It explicitly tries to correct for both model complexity and sample size by including each in its computation (Hair et al., 2014). The RMSEA is related to the residual in the model. Its values range from 0 to 1, with a smaller value indicating better model fit. Acceptable model fit is indicated by a value of 0.06 or less (Hu & Bentler, 1999). Recommendations for RMSEA cut-off points have been reduced considerably over the years. Values ranging from 0.05 to 0.1 were considered fair fit, and values above 0.1 were considered poor fit. RMSEA ranging from 0.08 to 0.1 was considered mediocre fit, and values below 0.08 were considered good fit. Recent recommendations are that a value should be in the range of 0.05 to a stringent upper limit of 0.07, with values below 0.05 and close to zero showing the best fit (Steiger, 2007; Hooper et al., 2008). RMSEA is best suited to use in a confirmatory or competing models' strategy as samples become larger. Its key advantage is that it has a known distribution and permits the calculation of the confidence interval (Hair et al., 2014).

- **Standardised root mean square residual (SRMR)**

SRMR is an index of the average of standardised residuals between the observed variables and the hypothesised covariance matrices (Chen, 2007). SRMR does not give any information about the direction of discrepancies between the sample covariance matrix and the hypothesised model (Cangur & Ercan, 2015; Kline, 2011). Although SRMR indicates the acceptable fit when it produces a value smaller than 0.10, it can be interpreted as an indicator of good fit when it produces a value lower than 0.05 (Kline, 2011; Schermelleh-Engel & Moosbrugger, 2003). One of the reasons why the SRMR index is preferred is its relative independence of sample size (Chen, 2007).

- **Normed fit index (NFI)**

The NFI is one of the original incremental fit indices. It is a ratio of the differences in the  $X^2$  value for the fitted model and a null model divided by the  $X^2$  value for the null model. It ranges between 0 and 1, and a model with perfect fit would produce an NFI of 1. NFI is sensitive to sample size, underestimating fit for small sample sizes. Models that are more complex will necessarily have higher index values and artificially inflate the estimate of model fit, and reliance solely on such models is thus not recommended. As a result, NFI is used less than other incremental fit measures, but is still reported despite its drawbacks, especially combined with other indices (Kline, 2011; Hair et al., 2014).

- **Tucker-Lewis index (TLI)**

The TLI is an incremental fit index and is sometimes referred to as the non-normed fit index (NNFI). It was developed against the disadvantage of NFI being affected by sample size. The advantage of the NFI is that it can be applied to small samples and used to compare a particular model across samples (Schermelleh-Engel & Moosbrugger, 2003). Another drawback of the NFI is that it can indicate poor fit despite other indices pointing towards good fit when the sample is smaller. TLI is actually a comparison of the normed chi-square values for the null and specified model, which, to some degree, takes into account model complexity (Hair et al., 2014). A larger TLI value indicates better fit for the model. Although values larger than 0.95 are interpreted as acceptable fit, 0.97 was accepted as the cut-off value in a great number of research studies. TLI is not required to be between 0 and 1, as it is non-normed, and it is not affected significantly by sample size (Schermelleh-Engel & Moosbrugger, 2003; Cangur & Ercan, 2015).

Table 6.30 indicates the recommended cut-off criteria for each model fit index used in the present study.

**Table 6.30: Cut-off criteria for model fit indices**

Fit Measure	Good Fit	Acceptable Fit
$\chi^2$	$0 \leq \chi^2 \leq 2df$	$2df < \chi^2 \leq 3df$
$\chi^2/df$	$0 \leq \chi^2/df \leq 2$	$2 < \chi^2/df \leq 3$
RMSEA	$0 \leq RMSEA \leq .05$	$.05 < RMSEA \leq .08$
<i>p</i> -value for test of close fit (RMSEA < .05) Confidence interval (CI)	$.10 < p \leq 1.00$ close to RMSEA, left boundary of CI = .00	$.05 \leq p \leq .10$ close to RMSEA
SRMR	$0 \leq SRMR \leq .05$	$.05 < SRMR \leq .10$
NFI	$.95 \leq NFI \leq 1.00$	$.90 \leq NFI < .95$
NNFI	$.97 \leq NNFI \leq 1.00$	$.95 \leq NNFI < .97$
CFI	$.97 \leq CFI \leq 1.00$	$.95 \leq CFI < .97$
GFI	$.95 \leq GFI \leq 1.00$	$.90 \leq GFI < .95$

Source: Schermelleh-Engel & Moosbrugger (2003)

Cut-off criteria are quite arbitrary, and should not be taken too seriously, because it is always possible that a model may fit the data despite one or more fit indices suggesting poor fit (Schermelleh-Engel & Moosbrugger, 2003).

The last step in SEM is model modification, which is discussed next.

### Step 5: Model modification

If the model is not good, hypotheses can be adjusted and the model retested, referred to as *modification* or *re-specification* (Schumacker & Lomax, 2016). Model modification should be done with caution, because once a researcher attempts to re-specify an initial model after it has been rejected by the data, the process of confirmation is over and the process enters into the exploratory mode, in which a researcher seeks revisions to the model that will most significantly fit the data (Pugesek, Tomer & Von Eye, 2003). The two most popular statistics used to modify the model are the modification index (MI) and the t-ratio.

The MI is used to determine which parameter, if freed, would contribute most to an increase in model fit, and indicates the amount by which the  $X^2$  goodness-of-fit statistic

would decrease if the parameter were specified in the model. A single parameter, 1 df, would significantly improve the fit of a model if it decreased the goodness-of-fit  $X^2$  by at least 8.841 points ( $p < 0.05$ ). On the other hand, the t-ratio assesses the significance of the individual parameters in a specified model. A t-ratio of less than 2 is generally considered nonsignificant ( $p = 0.05$ ). Those parameters that are not significant may be removed from the model without causing the model to fit significantly worse. Generally, the strategy is to first determine which parameters should be added to the model by examining individual MIs, and then, once the list of significant MIs has been exhausted, examine the t-ratios to decide which parameters should be deleted from the model (Joreskog & Sorbom, 1996; Pugesek et al., 2003). It is important to report the modification test used, why that test was used, and whether the modification makes theoretical sense for the model. Evidence should also be provided that the modified model is statistically superior to the original model (Schreiber et al., 2006). These recommendations were adhered to in the present study.

## **6.9 METHODOLOGICAL LIMITATIONS**

In the present study, the quantitative approach was employed to address the research problem, research hypotheses, and research objectives. This method has some limitations, such as a reliance on questionnaires as the main instrument for data collection, which may lead to inauthentic responses being provided, thereby compromising the validity and reliability of the study (Cohen et al., 2018). A researcher is unable to control how the respondents provide answers to the questions. Respondents may be pressed for time, coupled with other constraining factors such as level of education and language barriers. In the present study, questionnaires were used to collect data, and the researcher therefore faced the aforementioned challenges. The researcher also faced challenges in access to respondents, due to the Covid-19 regulations. It was difficult to recruit respondents and gain access to their homes, as they feared infection. Financial constraints posed another serious challenge to this study, which lead to only two provinces, Eastern Cape and Limpopo, being sampled.

## **6.10 ETHICAL CONSIDERATIONS**

Ethics, in simple terms, refers to right or wrong behaviour. Researchers should always consider the rights of respondents (Rogelberg, 2004). The present researcher took all necessary steps to ensure compliance with ethical standards. The respondents were not subjected to any physical or psychological harm, and no experiment was performed on them. They were informed of the nature of the study, that participation was voluntary, and that they had the right to withdraw from the study at any time, without any negative consequences. They were also assured of anonymity and confidentiality and were not asked to provide their names in their responses.

To comply with Unisa's code of ethics, an application for ethical clearance was submitted Ethics Committee of the Department of Finance, Risk Management and Banking for approval before commencing data collection. Due to the Covid-19 pandemic, Unisa had updated ethical research guidelines for researchers, to ensure that researchers upheld the regulations issued by government. These guidelines were updated from time to time according to the regulations announced by the president and were followed in conducting the study. Permission to conduct the study was obtained from Fetakgomo Tubatse and Intsika Yethu municipalities.

## **6.11 SUMMARY**

This chapter explained the research methodology followed in conducting the study. The discussion covered the research philosophy, research approach, research design, study area, sampling, data collection instrument, data collection procedure, data analysis, methodological limitations, and ethical considerations. It was highlighted that the research philosophy for this quantitative study was positivism, as the focus was the social phenomena of parental financial socialisation and the financial literacy of young black African adults in rural and low-income areas in South Africa. The chosen research approach for this study is quantitative approach which is line with the methodological principles of positivism philosophy and supports the objective of the study and allows for data to be collected in a way that it is easy to quantify, and also provides the researcher with control over external factors. The selected research design for this study is non-

experimental design as it is widely used in quantitative research and suit the objectives of the study. The survey or cross-sectional design is the appropriate non-experimental design for this study as it allows for data collection from large population to obtain quantitative data. It was indicated that the study area is Fetakgomo Tubatse and Intsika Yethu municipalities in Limpopo and Eastern Cape, respectively because they met the inclusion requirements of the municipalities with highest level of poverty and the highest in terms of rural and low-income area classification. Sampling provided the population, sample size, sampling techniques and sampling procedure. The population was indicated as 153 694 young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities. The sample size was calculated as 500 and was found to be sufficient to conduct several statistical tests required for this study. The sampling methods is the probability sampling which allowed all young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities an equal chance to be included in the sample. The sampling procedure followed started off by using the cluster sampling methods, then the proportionate stratified sampling, simple random sampling and lastly the systematic sampling. Data was collected through questionnaire distributed to respondents in their homes. Questionnaire were pre-tested to ensure reliability and validity. A simple data collection procedure was followed to ensure that the sampling plan is not violated. The collected data must be transformed into meaningful information through applying appropriate statistical tests. Data analysis methods discussed are descriptive statistics and inferential statistics. Descriptive statistics highlighted are frequencies, percentages, central tendencies and measures of dispersion. While inferential statistics discussed are factor analysis, correlation analysis, hypothesis testing, difference testing, regression analysis, and SEM. Methodological limitations were also discussed and revealed lack of funds and the Covid 19 pandemic as major shortcomings to the study. Lastly, this chapter discussed ethical considerations and highlighted the importance of abiding by the Unisa code of ethics for researcher to ensure that respondents are protected from harm during data collection.

The next chapter presents the results of the study.

## CHAPTER 7

### EMPIRICAL RESULTS

#### 7.1 INTRODUCTION

The previous chapter dealt with the research methodology used to conduct the research by discussing the research philosophy, research approach, research design, study area, sampling, data collection instrument, the data collection procedure, data analysis, methodological limitations, and ethical considerations.

This chapter reports the empirical results of the study in nine sections. Section 7.2 lists the research hypotheses, Section 7.3 indicates the results of the pilot study, Section 7.4 reports the response rate, and Section 7.5 highlights the demographic results. Section 7.6 provides the EFA results for data validity and reliability, and Section 7.7 reports the descriptive results for the variables *Culture*, *Parenting style*, *Parental financial socialisation*, and *Financial literacy*. Section 7.8 reports the results of the testing of the main and sub-hypotheses of the study, and Section 7.9 deals with the results of SEM to develop a parental financial socialisation model. Lastly, Section 7.10 summarises the chapter and highlights the main results.

#### 7.2 RESEARCH HYPOTHESES

In line with the objectives of the study, the following hypotheses were formulated:

**H1:** Young black African adults are financially literate.

**H2:** Young black African adults are financially socialised by their parents.

**H3:** There is a significant difference in parental financial socialisation across parental SES (parental income level and parental level of education).

**H4:** There is a significant difference in parental financial socialisation according to the child's gender.

**H5:** There is a significant difference in parental financial socialisation according to parental gender.

**H6:** There is a significant positive relationship between culture and parental financial socialisation.

**H7:** There is a significant positive relationship between parenting style and parental financial socialisation.

**H8:** There is a significant positive relationship between parental financial socialisation and financial literacy.

**H9:** The relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).

**H10:** The relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).

### **7.3 RESULTS OF THE PILOT STUDY**

To pre-test questionnaires, a small survey was conducted to pilot the study. This was done to ensure that the questionnaire items were valid and reliable, and, where necessary, the questionnaire were refined. The questionnaires were distributed to respondents who met the inclusion criteria of the study. The pilot study was conducted during the time when travelling between provinces was not allowed, due to Covid-19 restrictions. Thus, questionnaires were distributed via email and *WhatsApp*. A total of 40 responses were received and analysed. Reliability analysis was performed to test internal consistency, whether the items measured what they ought to have measured, and the extent to which individual statement were measuring the same construct.

The pilot study showed that the items had high reliability, ranging from 0.728 to 0.976. The Cronbach alpha for each component was as follows: *Culture* (0.837), *Parenting style* (0.972), *Financial socialisation* (0.976), and *Financial literacy* (0.728). However, certain items yielded a negative correlation, which warranted deletion or reverse-scoring to improve the Cronbach alpha. One item of *Culture* (C3) yielded a low and negative correlation; however, there was no need to delete or reverse this item, as its impact on the Cronbach alpha was minimal. For *Parenting style*, items PS1, PS2, PS3, PS4, PS5, PS6, PS7, and PS8 were reverse scored, as the items were negatively worded. These

items were worded correctly in the questionnaire for the main study. With regard to *Parental financial socialisation*, only two items (FS9 and FS11) were negative and were deleted. Lastly, *Financial literacy* had 11 items that were negatively worded (FL24, FL27, FL28, FL29, FL30, FL31, FL33, FL34, FL35, FL37, and FL39). These items were not deleted or reversed, as the Cronbach alpha values were well within the acceptable range of 0.728. Items FL24, FL28, FL29, and FL35 were deleted from the main study's questionnaire. Items FL27, FL31, FL33, and FL34 were revised and positively worded, while items FL30, FL37, and FL39 were retained in the main study's questionnaire. Thus, some items that were negatively worded were revised to ensure that they were positively worded, and some items were removed from the questionnaire due to their failure to measure what they were intended to measure.

The next step in the pilot study analysis was to determine whether the questionnaire items were adequate to conduct factor analysis. This was done by conducting a KMO measure of sampling adequacy (MSA) and Bartlett's test of sphericity. The acceptable KMO-MSA value for EFA is 0.50 and above; however, 0.60 or higher is preferable, while Bartlett's test of sphericity is significant and suitable for EFA if the significance value is  $p < 0.05$  (Williams et al., 2010; Hair et al., 2014). The KMO-MSA for all components ranged from 0.787 to 0.959, thus above 0.60. The  $p$ -value of Bartlett's test for all components ( $p = 0.000$ ) was smaller than 0.05, i.e., significant. This result was an indication that the correlation structure of the construct was adequate to conduct a factor analysis on the items. Changes were made to the questionnaire based on the results of the pilot study.

#### **7.4 RESPONSE RATE**

Data were collected from young black African adults in Intsika Yethu municipality in the Eastern Cape and Fetakgomo Tubatse municipality in Limpopo for a period of four months. Considering that a sample size of 500 had been set for this study, a total of 600 links were sent to respondents. Of the 600 questionnaires distributed, 478 were returned, of which 472 were considered suitable for analysis. Thus, the response rate for this study was 73.53%.

## 7.5 DEMOGRAPHIC RESULTS

Section A of questionnaire gathered demographic, personal, and parental information. Descriptive statistics were used to summarise data by calculating frequencies and percentages. Table 7.31 presents the results.

**Table 7.31: Personal and parental data of respondents**

Items	Category	Frequency	Percentage %
Local municipality	Fetakgomo Tubatse	283	60
	Intsika Yethu	189	40
	<b>Total</b>	<b>472</b>	<b>100</b>
Gender	Male	157	33.3
	Female	315	66.7
	<b>Total</b>	<b>472</b>	<b>100</b>
Age	18–20 years	133	28.2
	21–25 years	105	22.2
	26–30 years	109	23.1
	31–35 years	125	26.5
	<b>Total</b>	<b>472</b>	<b>100</b>
Marital status	Single	136	28.8
	Married	77	16.3
	Living with a partner	119	25.2
	Divorced	75	15.9
	Widow/Widower	65	13.8
	<b>Total</b>	<b>472</b>	<b>100</b>
Talk about money	Female parent	296	62.7
	Male parent	114	24.2
	Both parents	62	13.1
	<b>Total</b>	<b>472</b>	<b>100</b>
Parental income	Less than R5 000	152	32.2
	R5 001 – R10 000	131	27.8
	R10 001 – R15 000	85	18.0
	R15 001 – R20 000	78	16.5
	R20 000 +	26	5.5
	<b>Total</b>	<b>472</b>	<b>100</b>
Parental level of education	Lower than Grade 12	110	23.3
	Grade 12	132	28.0
	Diploma	74	15.7
	Degree	68	14.4
	Honours degree	50	10.6
	Master's degree	36	7.6
	Doctorate	2	0.4
	<b>Total</b>	<b>472</b>	<b>100</b>
Parental occupation	Unemployed	52	11.0
	Self-employed	58	12.3
	General worker	59	12.5
	Agricultural, forestry and fisheries worker	42	8.9
	Clerical support worker	47	10.0

**Table 7.31 (Cont.): Personal and parental data of respondents**

	Service and sales worker	24	5.1
	Security and armed forces	25	5.3
	Trained professional	29	6.1
	Financial sector worker	44	9.3
	Education sector worker	36	7.6
	Technician	29	6.1
	Manager	27	5.7
	<b>Total</b>	<b>472</b>	<b>100</b>

Source: SPSS

Table 7.31 indicates that the majority of respondents were from Fetakgomo Tubatse municipality (60%); 40% were from Intsika Yethu. The respondents were mostly women (66.7%), with men represented at 33.3%. Age was widely spread, with all categories attaining at least 20%. Most respondents were aged 18–20 years (28.2%), followed by 31–35 years (26.5%), 26–30 years (23.1%), and 21–25 years (22.2%). Most respondents were single (28.8%), and 25.2% were living with a partner 25.2%. The majority of respondents indicated that their *Female parent* (62.7%) was more likely to talk to them about money; only 24.2% indicated that their *Male parent* was likely to talk to them about money. Most respondents' parents earned *Less than R5 000* (32.2%), followed by 27.8% who earned *R5 000–R10 000*, while the minority earned *R20 000+* (5.5%). With regard to education, most respondents indicated that their parents held Grade 12 (28.0%), followed by parents who did not hold Grade 12 (23.3%), and those whose parents held a diploma (15.7%), a degree (14.4%), an honours degree (10.6%), a master's degree (7.6%), or a doctorate (0.4%). With regard to the parental occupation, most respondents' parents were general workers (12.5%) or were self-employed (12.3%), followed by 11% whose parents were unemployed.

## **7.6 DATA VALIDITY AND RELIABILITY**

EFA was used to assess construct validity, and Bartlett's test of sphericity and the KMO-MSA were used to determine the suitability of the data for EFA. To determine the number of factors to be retained in this study, Kaiser's criterion (eigenvalue > 1 rule) was used. This meant that, if a factor had an eigenvalue > 1, it had to be retained for further analysis, while if the eigenvalue was less than 1, the factor had to be removed.

Cronbach's alpha was used to measure reliability. The validity and reliability of the items of *Culture*, *Parenting style*, *Parental financial socialisation*, and *Financial literacy* are discussed next.

### 7.6.1 Culture

This section reports the results of the KMO-MSA, Bartlett's test of sphericity, communalities, factor structure, and eigenvalues for the factor *Culture*, together with the validity and reliability for the items. Table 7.32 indicates the results of the KMO-MSA and Bartlett's test of sphericity.

**Table 7.32: Results of KMO-MSA and Bartlett's test for *Culture***

KMO-MSA		0.939
Bartlett's test of sphericity	Approx. chi-square	3 985.841
	df	21
	Sig.	0.000

Source: SPSS

The KMO-MSA was 0.939 and the  $p$ -value of Bartlett's test of sphericity ( $p = 0.000$ ) was smaller than 0.05, indicating statistical significance. This meant that correlation structure of construct was adequate to conduct an EFA. The communalities are described next.

Communalities indicate the amount of variance in each variable that is accounted for by all components or factors and show the extent to which individual items in a construct correlate with each other. Items with initial and extraction values close to 1 have a strong correlation with each other (Hair et al., 2014). Table 7.33 shows the communalities of *Culture*.

**Table 7.33: Communalities of *Culture***

Item	Initial	Extraction
C1	0.844	0.848
C2	0.851	0.865
C4	0.736	0.742
C5	0.689	0.685
C6	0.797	0.823
C7	0.821	0.832
C8	0.826	0.835

Source: SPSS

Table 7.33 indicated the communalities for seven items of *culture*. Item C3 was removed from further analysis, because of low communality. The seven items' communalities ranged from 0.742 to 0.865, and were considered acceptable, as they were all above 0.30. This meant that there was a strong correlation amongst all seven items. Table 7.34 reports the factor structure of *Culture*.

**Table 7.34: Factor structure of *Culture***

Item	Factor
	1
C2	0.930
C1	0.921
C8	0.914
C7	0.912
C6	0.907
C4	-0.861
C5	0.828

Source: SPSS

Table 7.34 indicates that one factor was extracted in the EFA; seven items loaded onto Factor 1 (C2, C1, C8, C7, C6, C4, and C5). Kaiser's criterion and cumulative percentage of variance were used to determine if the factor should be retained. Table 7.35 indicates the results.

**Table 7.35: Eigenvalue and cumulative percentage of variance of *Culture***

Factor	Initial eigenvalue			Extraction sum of squared loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.821	83.153	83.153	5.629	80.411	80.411
2	0.346	4.941	88.095			
3	0.244	3.483	91.578			
4	0.204	2.911	94.489			
5	0.165	2.353	96.841			
6	0.121	1.730	98.572			
7	0.100	1.428	100.000			

Source: SPSS

Only one factor had an eigenvalue greater than 1, and accounted for 83.15% of the cumulative variance, which was above the recommended cut-off point of between 50% and 60% (Hair et al., 2014). Therefore, only one factor was retained for further analysis. Table 7.36 reports the validity and reliability of Factor 1.

**Table 7.36: Validity and reliability of Factor 1: *Culture***

Variance = 83.15%		Cronbach $\alpha$ = 0.805		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
C1	upheld cultural values.	0.921	0.864	0.707
C2	taught me that only boys should be involved in family money matters.	0.930	0.893	0.709
C4	taught me that both boys and girls should be involved in family money matters.	0.861	0.847	0.962
C5	believed that money matters should not be discussed with children.	0.828	0.818	0.734
C6	believed that only girls must do household chores such as cleaning and cooking.	0.907	0.869	0.713
C7	taught me about our tradition, heritage and cultural values.	0.912	0.873	0.719
C8	participated in cultural activities that are specific to our family.	0.914	0.883	0.716

Source: SPSS

Table 7.36 shows that seven items (C1, C2, C4, C5, C6, C7, and C8) that were developed to measure *Culture* loaded, as expected, to Factor 1. The factor loadings ranged from 0.828 and 0.930, with a variance of 83.15% and a Cronbach  $\alpha$  of 0.805. Thus, Factor 1 was valid and reliable, and was named *Culture*.

## 7.6.2 Parenting Style

This section reports the results of the KMO-MSA and Bartlett's test of sphericity, communalities, factor structure, and eigenvalues for the factor *Parenting style*, together with the validity and reliability of the factors of *Parenting style*. Table 7.37 indicates the results of the KMO-MSA and Bartlett's test of sphericity.

**Table 7.37: KMO-MSA and Bartlett's test for *Parenting style***

KMO-MSA		0.925
Bartlett's test of sphericity	Approx. chi-square	8 001.221
	df	171
	Sig.	0.000

Source: SPSS

The KMO-MSA was 0.925 and the  $p$ -value of Bartlett's test of sphericity ( $p = 0.000$ ) was smaller than 0.05, i.e., statistically significant. This meant that the correlation structure of the construct was adequate to conduct EFA. Table 7.38 shows the communalities of *Parenting style*.

**Table 7.38: Communalities of *Parenting style***

Item	Initial	Extraction	Item	Initial	Extraction
PS1	0.740	0.663	PS11	0.691	0.703
PS2	0.749	0.655	PS12	0.708	0.711
PS3	0.648	0.617	PS13	0.752	0.783
PS4	0.630	0.643	PS14	0.774	0.798
PS5	0.665	0.639	PS15	0.774	0.727
PS6	0.700	0.678	PS16	0.821	0.768
PS7	0.722	0.758	PS17	0.832	0.834
PS8	0.366	0.422	PS18	0.845	0.831
PS9	0.545	0.660	PS19	0.782	0.713
PS10	0.652	0.704			

Source: SPSS

The 19 items' communalities ranged from 0.422 to 0.834, and were acceptable, as they were all above 0.30. This meant that there was a strong correlation amongst all 19 items. Table 7.39 reports the factor structure of *Parenting style*.

**Table 7.39: Factor structure of *Parenting style***

Item	Factor			
	1	2	3	4
PS7	-0.837			
PS6	-0.816			
PS5	-0.791			
PS4	-0.757			
PS1	0.749			
PS2	0.702			
PS3	0.642			
PS9		0.636		
PS8		0.601		
PS10		0.524		
PS18			0.882	
PS17			0.849	
PS19			0.780	
PS16			0.746	
PS15			0.531	
PS13				0.826
PS14				0.732
PS12				0.732
PS11				0.509

Source: SPSS

Table 7.39 shows that four factors were extracted in the EFA. Seven items (PS1, PS2, PS3, PS4, PS5, PS6, and PS7) loaded onto Factor 1. Three items (PS8, PS9, and PS10) loaded onto Factor 2. Five items (PS15, PS16, PS17, PS18, and PS19) loaded onto Factor 3, and four items (PS11, PS12, PS13, and PS14) loaded onto Factor 4. Kaiser's criterion (eigenvalue > 1 rule) and cumulative percentage of variance were used to determine the factors to be retained. Table 7.40 reports the eigenvalue and cumulative percentage of variance of *Parenting style*.

**Table 7.40: Eigenvalue and cumulative percentage of variance of *Parenting style***

Factor	Initial eigenvalue			Extraction sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.322	54.324	54.324	10.040	52.841	52.841
2	1.690	8.894	63.218	1.295	6.816	59.657
3	1.486	7.821	71.040	1.233	6.491	66.147
4	1.023	5.385	76.425	0.739	3.890	70.037
5	0.716	3.766	80.191			
6	0.585	3.078	83.269			
7	0.448	2.358	85.627			
8	0.397	2.091	87.719			
9	0.353	1.856	89.574			
10	0.288	1.517	91.091			
11	0.274	1.444	92.536			
12	0.264	1.392	93.927			
13	0.226	1.189	95.116			
14	0.223	1.175	96.291			
15	0.197	1.039	97.330			
16	0.160	0.844	98.174			
17	0.155	0.815	98.989			
18	0.113	0.592	99.581			
19	0.080	0.419	100.000			

Source: SPSS

Four factors had an eigenvalue greater than 1, and accounted for 76.42% of the cumulative variance, which was above the recommended cut-off point of between 50% and 60% (Hair et al., 2014). Therefore, the four factors were retained for further analysis. Table 7.41 reports the validity and reliability of Factor 1.

**Table 7.41: Validity and reliability of Factor 1: *Authoritarian style***

Variance =: 54.32%		Cronbach $\alpha$ = 0.931		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
PS1	were easy on time for me to come back home.	0.749	0.794	0.919
PS2	discussed family rules with me.	0.702	0.797	0.918
PS3	would involve me in decisions about what I was allowed to do.	0.642	0.750	0.923
PS4	told me that their decisions are final.	-0.757	0.770	0.921
PS5	used physical punishment as a way of disciplining me.	-0.791	0.760	0.922
PS6	exploded in anger towards me.	-0.816	0.781	0.920
PS7	criticised me to make me improve.	-0.837	0.808	0.917

Source: SPSS

Seven items (PS1, PS2, PS3, PS4, PS5, PS6, and PS7), which were developed to measure *Authoritarian style*, loaded, as expected, to Factor 1. The factor loadings ranged from 0.642 to 0.837, with a variance of 54.32% and a Cronbach  $\alpha$  of 0.931. Thus, Factor 1 was valid and reliable, and was named *Authoritarian style*. Table 7.42 reports the validity and reliability of Factor 2.

**Table 7.42: Validity and reliability of Factor 2: *Neglectful style***

Variance = 8.89%		Cronbach $\alpha$ = 0.645		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
PS8	did not worry whether or not I do the chores they ask me to do.	0.601	0.252	0.793
PS9	allowed me to do pretty much what I want without questioning my decisions.	0.636	0.644	0.256
PS10	allowed me to go where I want without questioning me.	0.524	0.507	0.473

Source: SPSS

Three items (PS8, PS9, and PS10), which were developed to measure *Neglectful style*, loaded, as expected, to Factor 2. The factor loadings ranged from 0.524 and 0.636, with a variance of 8.89% and a Cronbach  $\alpha$  of 0.645. Thus, Factor 2 was valid and reliable, and was named *Neglectful style*. Table 7.43 reports the validity and reliability of Factor 3.

**Table 7.43: Validity and reliability of Factor 3: *Authoritative style***

Variance = 7.82%		Cronbach $\alpha$ = 0.932		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
PS18	encouraged me to look at both sides of issues.	0.882	0.847	0.911
PS17	would explain why, if they want me to do something.	0.849	0.871	0.906
PS19	encouraged me to talk about my troubles.	0.780	0.795	0.921
PS16	spent time just talking to me.	0.746	0.831	0.914
PS15	did fun things with me.	0.531	0.754	0.928

Source: SPSS

Five items (PS15, PS16, PS17, PS18, and PS19), which were developed to measure *Authoritative style*, loaded, as expected, to Factor 3. The factor loadings ranged from 0.531 and 0.882, with a variance of 7.82% and a Cronbach  $\alpha$  of 0.932. Thus, Factor 3 was valid and reliable, and was named *Authoritative style*. Table 7.44 shows the results of validity and reliability for Factor 4.

**Table 7.44: Validity and reliability of Factor 4: *Permissive style***

Variance = 5.38%		Cronbach $\alpha$ = 0.906		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
PS13	usually told me reasons for rules.	0.826	0.835	0.861
PS14	praised me when I do things well.	0.732	0.780	0.881
PS12	had an interest in my activities.	0.732	0.813	0.869
PS11	allowed me to spend my free time as I want.	0.509	0.724	0.900

Source: SPSS

Four items (PS11, PS12, PS13, and PS14), which were developed to measure *Permissive style*, loaded, as expected, to Factor 4. The factor loadings ranged from 0.509 and 0.826, with a variance of 5.38% and a Cronbach  $\alpha$  of 0.906. Thus, Factor 4 was valid and reliable, and was named *Permissive style*.

### 7.6.3 Parental Financial Socialisation

This section reports the results of the KMO-MSA, Bartlett's test of sphericity, communalities, factor structure, and eigenvalues for the factor *Parental financial*

*socialisation*. This section also reports the validity and reliability of the factors of *Parental financial socialisation*. Table 7.45 reports the results of the KMO-MSA and Bartlett's test of sphericity.

**Table 7.45: KMO-MSA and Bartlett's test for *Parental financial socialisation***

KMO-MSA		0.921
Bartlett's test of sphericity	Approx. chi-square	13 735.263
	df	351
	Sig.	0.000

Source: SPSS

The KMO-MSA was 0.921, and the  $p$ -value of Bartlett's test of sphericity ( $p = 0.000$ ) was smaller than 0.05 and was thus statistically significant. This meant that the correlation structure of the construct was adequate to conduct EFA. Table 7.46 shows the communalities of *Parental financial socialisation*.

**Table 7.46: Communalities for *Parental financial socialisation***

Item	Initial	Extraction	Items	Initial	Extraction
FS1	0.826	0.729	FS18	0.800	0.791
FS2	0.857	0.811	FS19	0.849	0.765
FS3	0.781	0.756	FS20	0.802	0.688
FS4	0.745	0.659	FS21	0.832	0.774
FS5	0.563	0.490	FS22	0.861	0.844
FS9	0.622	0.497	FS23	0.857	0.855
FS10	0.745	0.562	FS24	0.833	0.777
FS11	0.706	0.593	FS25	0.807	0.698
FS12	0.655	0.597	FS26	0.831	0.742
FS13	0.728	0.733	FS27	0.847	0.787
FS14	0.743	0.680	FS28	0.853	0.835
FS15	0.771	0.645	FS29	0.902	0.852
FS16	0.778	0.685	FS30	0.858	0.762
FS17	0.792	0.777			

Source: SPSS

The 30 items' communalities ranged from 0.490 to 0.855, and were acceptable, as they were all above 0.30. This meant that there was a strong correlation amongst all 30 items. Table 7.47 reports the factor structure of *Parental financial socialisation*.

**Table 7.47: Factor structure of *Parental financial socialisation***

Item	Factor				
	1	2	3	4	5
FS29	0.945				
FS28	0.940				
FS30	0.825				
FS27	0.793				
FS26	0.631				
FS13		0.938			
FS12		0.742			
FS14		0.633			
FS11		0.419			
FS18			-0.879		
FS19			-0.867		
FS17			-0.794		
FS20			-0.678		
FS16			-0.555		
FS22				0.927	
FS21				0.844	
FS23				0.821	
FS24				0.665	
FS2					-0.951
FS3					-0.829
FS1					-0.816
FS4					-0.688
FS5					-0.511
FS9					-0.320

Source: SPSS

Five factors were extracted in the EFA. Five items (FS26, FS27, FS28, FS29, and FS30) loaded onto Factor 1. Four items (FS11, FS12, FS13, and FS14) loaded onto Factor 2. Five items (FS16, FS17, FS18, FS19, and FS20) loaded onto Factor 3. Four items (FS21, FS22, FS23, and FS24) loaded onto Factor 4. Six items (FS1, FS2, FS3, FS4, FS5, and FS9) loaded onto Factor 5. Six items (FS6, FS7, FS8, FS10, FS15, and FS25) were deleted because of higher cross-loadings between factors. Kaiser's criterion (eigenvalue > 1 rule) and cumulative percentage of variance were used to determine the factors to be retained. Table 7.48 indicates the eigenvalue and cumulative percentage of variance of *Parental financial socialisation*.

**Table 7.48: Eigenvalue and a cumulative percentage of variance of *Parental financial socialisation***

Factor	Initial eigenvalue			Extraction sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.688	52.866	52.866	12.429	51.788	51.788
2	1.837	7.653	60.519	1.573	6.552	58.340
3	1.567	6.529	67.048	1.332	5.549	63.889
4	1.420	5.918	72.965	1.227	5.112	69.001
5	1.239	5.163	78.128	1.000	4.168	73.168
6	0.746	3.109	81.237			
7	0.635	2.645	83.882			
8	0.559	2.328	86.210			
9	0.448	1.868	88.077			
10	0.423	1.761	89.839			
11	0.344	1.435	91.274			
12	0.313	1.303	92.577			
13	0.272	1.131	93.709			
14	0.257	1.071	94.779			
15	0.234	0.974	95.753			
16	0.173	0.723	96.475			
17	0.160	0.669	97.144			
18	0.140	0.585	97.729			
19	0.124	0.516	98.245			
20	0.114	0.476	98.721			
21	0.089	0.369	99.090			
22	0.084	0.350	99.440			
23	0.079	0.329	99.768			
24	0.056	0.232	100.000			

Source: SPSS

Table 7.48 indicates that five factors had an eigenvalue greater than 1, and accounted for 78.12% of the cumulative variance, which was above the recommended cut-off point of between 50% and 60% (Hair et al., 2014). Therefore, five factors were retained for further analysis. Table 7.49 reports the validity and reliability of Factor 1.

**Table 7.49: Validity and reliability of Factor 1: *Parental financial behaviour***

Variance = 52.86%		Cronbach $\alpha$ = 0.946		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
FS26	saved money for the future.	0.631	0.782	0.945
FS27	used a budget.	0.793	0.857	0.932
FS28	tracked monthly expenses.	0.940	0.883	0.927
FS29	paid bills on time.	0.945	0.893	0.925
FS30	went to shopping with me.	0.825	0.842	0.935

Source: SPSS

Five items (FS26, FS27, FS28, FS29, and FS30), which were developed to measure *Parental financial behaviour*, loaded to Factor 1, as expected. The factor loadings ranged from 0.631 to 0.945 for Factor 1, with a variance of 52.86% and a Cronbach  $\alpha$  of 0.946. Thus, Factor 1 was valid and reliable, and was named *Parental financial behaviour*. Table 7.50 reports the validity and reliability of Factor 2.

**Table 7.50: Validity and reliability of Factor 2: *Parental financial monitoring***

Variance = 7.65%		Cronbach $\alpha$ = 0.860		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
FS11	would give me financial advice.	0.419	0.611	0.862
FS12	would want to know if I receive money from part-time job.	0.742	0.744	0.806
FS13	monitored my spending behaviour.	0.938	0.789	0.788
FS14	restricted my spending.	0.633	0.688	0.829

Source: SPSS

Four items (FS11, FS12, FS13, and FS14), which were developed to measure *Parental financial monitoring*, loaded, as expected, to Factor 2. The factor loadings ranged from 0.419 to 0.938, with a variance of 7.65% and a Cronbach  $\alpha$  of 0.860. Thus, Factor 2 was valid and reliable, and was named *Parental financial monitoring*. Table 7.51 reports the validity and reliability of Factor 3.

**Table 7.51: Validity and reliability of Factor 3: *Parental financial discussions***

Variance = 6.52%		Cronbach $\alpha$ = 0.923		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
FS16	would allow me to spend money as I want.	-0.555	0.702	0.925
FS17	involved me in family financial matters.	-0.794	0.831	0.900
FS18	discussed with me managing expenses and avoiding overspending.	-0.879	0.855	0.895
FS19	discussed with me checking credit report.	-0.867	0.855	0.895
FS20	discussed with me paying bills on time.	-0.678	0.762	0.914

Source: SPSS

Five items (FS16, FS17, FS18, FS19, and FS20), which were developed to measure *Parental financial discussions*, loaded, as expected, to Factor 3. The factor loadings ranged from 0.555 and 0.879, with a variance of 6.52% and a Cronbach  $\alpha$  of 0.923. Thus,

Factor 3 was valid and reliable, and was named *Parental financial discussion*. Table 7.52 reports the validity and reliability of Factor 4.

**Table 7.52: Validity and reliability of Factor 4: *Parental financial communication***

Variance = 5.91%		Cronbach $\alpha$ = 0.945		
Item	Statement	Loading	Corrected item-total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
FS21	spoke to me about the importance of saving.	0.844	0.863	0.930
FS22	talked to me about things we needed to buy.	0.927	0.887	0.922
FS23	explained the use of credit.	0.821	0.904	0.916
FS24	explained the family spending plan.	0.665	0.819	0.943

Source: SPSS

Four items (FS21, FS22, FS23, and FS24), which were developed to measure *Parental financial communication*, loaded, as expected, to Factor 4. The factor loadings ranged from 0.665 to 0.927, with a variance of 5.91% and a Cronbach  $\alpha$  of 0.945. Thus, Factor 4 was valid and reliable, and was named *Parental financial communication*. Table 7.53 reports the validity and reliability of Factor 5.

**Table 7.53: Validity and reliability of Factor 5: *Parental financial teaching***

Variance = 5.16%		Cronbach alpha = 0.909		
Item	Statement	Loading	Corrected item-total correlation	Cronbach's $\alpha$ if item deleted
	My parents...			
FS2	taught me about credit.	-0.951	0.830	0.881
FS3	taught me how to be a smart shopper.	-0.829	0.829	0.881
FS1	taught me about budgeting.	-0.816	0.789	0.887
FS4	taught me about savings.	-0.688	0.785	0.888
FS5	taught me how to manage my money.	-0.511	0.680	0.903
FS9	gave me allowances such as pocket money.	-0.320	0.580	0.916

Source: SPSS

Six items (FS1, FS2, FS3, FS4, FS5, and FS9), which were developed to measure *Parental financial teaching*, loaded, as expected, to Factor 4. The factor loadings ranged from 0.320 to 0.951, with a variance of 5.16% and a Cronbach  $\alpha$  of 0.909. Thus, Factor 4 was valid and reliable, and was named *Parental financial teaching*.

#### 7.6.4 Financial Literacy

This section reports the results of the KMO-MSA, Bartlett's test of sphericity, communalities, factor structure, and eigenvalues for the factor *Financial literacy*. This section also indicates the validity and reliability for the items of *Financial literacy*. Table 7.54 indicates the results for the KMO-MSA and Bartlett's test of sphericity.

**Table 7.54: KMO and Bartlett's test for *Financial literacy***

KMO measure of sampling adequacy		0.908
Bartlett's test of sphericity	Approx. chi-square	14 347.181
	df	496
	Sig.	0.000

Source: SPSS

The KMO-MSA was 0.908 for *Financial literacy*. The  $p$ -value of Bartlett's test of sphericity ( $p = 0.000$ ) was smaller than 0.05 and was thus statistically significant. This meant that the correlation structure of the construct was adequate to conduct EFA. Table 7.55 shows the communalities of *Financial literacy*.

**Table 7.55: Communalities of *Financial literacy***

Item	Initial	Extraction	Item	Initial	Extraction
FL1	1.000	0.636	FL27	1.000	0.582
FL2	1.000	0.618	FL28	1.000	0.608
FL3	1.000	0.681	FL29	1.000	0.621
FL4	1.000	0.709	FL30	1.000	0.604
FL5	1.000	0.695	FL31	1.000	0.677
FL6	1.000	0.683	FL32	1.000	0.710
FL7	1.000	0.680	FL33	1.000	0.602
FL8	1.000	0.625	FL34	1.000	0.661
FL9	1.000	0.575	FL35	1.000	0.647
FL13	1.000	0.567	FL36	1.000	0.626
FL14	1.000	0.301	FL37	1.000	0.563
FL15	1.000	0.704	FL38	1.000	0.589
FL16	1.000	0.726	FL40	1.000	0.584
FL17	1.000	0.656	FL41	1.000	0.529
FL18	1.000	0.637	FL42	1.000	0.580
FL19	1.000	0.620	FL43	1.000	0.635
FL20	1.000	0.544	FL44	1.000	0.677
FL24	1.000	0.519	FL45	1.000	0.666
FL25	1.000	0.520	FL46	1.000	0.642
FL26	1.000	0.573	FL47	1.000	0.493

Source: SPSS

Seven items (FL10, FL11, FL12, FL21, FL22, FL23, and FL39) were deleted because of low communalities, and were removed from further analysis. A total of 40 items had communalities above 0.30 and were acceptable for further analysis. The 40 items' communalities extracted ranged from 0.493 to 0.726. This meant that there was a strong correlation amongst all 40 items. Table 7.56 illustrates the factor structure of *Financial literacy*.

**Table 7.56: Factor structure of *Financial literacy***

Item	Factor			
	1	2	3	4
FL17	0.976			
FL16	0.957			
FL15	0.888			
FL18	0.884			
FL14	0.789			
FL19	0.736			
FL20	0.612			
FL13	0.605			
FL26	0.462			
FL25	0.398			
FL5		0.931		
FL3		0.913		
FL4		0.903		
FL2		0.837		
FL6		0.832		
FL1		0.792		
FL7		0.704		
FL8		0.583		
FL9		0.516		
FL32			0.880	
FL34			0.877	
FL31			0.804	
FL35			0.780	
FL33			0.767	
FL36			0.688	
FL30			0.565	
FL38			0.487	
FL37			0.405	
FL46				0.977
FL45				0.770
FL47				0.704
FL44				0.470

Source: SPSS

Ten items (FL13, FL14, FL15, FL16, FL17, FL18, FL19, FL20, FL25, and FL26) loaded onto Factor 1. Nine items (FL1, FL2, FL3, FL4, FL5, FL6, FL7, FL8, and FL9) loaded onto Factor 2. Nine items (FL30, FL31, FL32, FL33, FL34, FL35, FL36, FL37, and FL38) loaded onto Factor 3. Four items (FL44, FL45, FL46, and FL47) loaded onto Factor 4. Eight items (FL24, FL27, FL28, FL29, FL40, FL41, FL42, and FL43) were deleted because of high cross-loadings between the factors. Kaiser's criterion (eigenvalue > 1 rule) and a cumulative percentage of variance were used to determine the factors to be retained. Table 7.57 indicates the eigenvalue and cumulative percentage of variance of *Financial literacy*.

**Table 7.57: Eigenvalue and cumulative percentage of variance of *Financial literacy***

Factor	Initial Eigenvalue			Extraction sum of squared loading		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14.289	44.653	44.653	13.921	43.504	43.504
2	2.360	7.375	52.028	1.998	6.244	49.748
3	2.222	6.944	58.972	1.863	5.821	55.569
4	1.964	6.137	65.109	1.643	5.135	60.704
5	0.915	4.110	69.219			
6	0.825	3.829	73.048			
7	0.790	3.371	76.419			
8	0.780	3.157	79.576			
9	0.748	2.339	81.915			
10	0.651	2.035	83.950			
11	0.547	1.710	85.660			
12	0.477	1.492	87.151			
13	0.383	1.196	88.347			
14	0.374	1.167	89.515			
15	0.349	1.091	90.605			
16	0.334	1.043	91.649			
17	0.296	0.924	92.573			
18	0.283	0.885	93.458			
19	0.281	0.879	94.337			
20	0.249	0.777	95.114			
21	0.222	0.692	95.806			
22	0.179	0.559	96.996			
23	0.154	0.481	97.976			
24	0.137	0.429	98.405			
25	0.117	0.366	98.772			
26	0.105	0.329	99.100			
27	0.079	0.246	99.346			
28	0.077	0.241	99.588			
29	0.077	0.240	99.827			
30	0.055	0.173	100.000			

Source: SPSS

Four factors had an eigenvalue greater than 1, and accounted for 65.10% of the cumulative variance, which was above the recommended cut-off point of between 50% and 60% (Hair et al., 2014). Therefore, four factors were retained for further analysis. Table 7.58 reports the validity and reliability of Factor 1.

**Table 7.58: Validity and reliability of Factor 1: *Financial knowledge***

Variance = 44.65%		Cronbach $\alpha$ = 0.934		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
FL17	I know key questions to ask when shopping for an item.	0.976	0.797	0.925
FL16	I know the difference between a need and a want.	0.957	0.834	0.923
FL15	If interest rates rise, so do loan repayments.	0.888	0.802	0.924
FL18	I understand the cost of buying on credit.	0.884	0.788	0.925
FL14	I review and evaluate my spending on a regular basis.	0.789	0.757	0.927
FL19	I know what is on a credit record or report.	0.736	0.779	0.925
FL20	Compared to my friends, I know more about savings.	0.612	0.707	0.929
FL13	I keep written or electronic financial records of my expenditure	0.605	0.661	0.931
FL26	I must have a bank account to have an ATM card.	0.462	0.648	0.932
FL25	Value-added tax (VAT) is tax paid on goods and services.	0.398	0.614	0.933

Source: SPSS

Two items (FL13 and FL14), which were developed to measure *Knowledge of spending and financial records*, and two items (FL19 and FL20), which were developed to measure *Knowledge of credit and savings*, loaded to Factor 1. Six items (FL15, FL16, FL17, FL18, FL25, and FL26), which were developed to measure *Knowledge of basic financial concepts*, also loaded onto Factor 1. The factor loadings ranged from 0.398 to 0.976, with a variance of 44.65% and a Cronbach  $\alpha$  of 0.934. Thus, Factor 1 was valid and reliable, and was named *Financial knowledge*. Table 7.59 reports the validity and reliability of Factor 2.

**Table 7.59: Validity and reliability of Factor 2: *Financial behaviour***

Variance = 7.37%		Cronbach $\alpha$ = 0.940		
Item	Statement	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
FL5	I regularly set money aside for possible unexpected expenses.	0.931	0.811	0.931
FL3	I save money to achieve long-term financial goals.	0.913	0.814	0.931
FL4	I set money aside for emergencies.	0.903	0.829	0.930
FL2	I save money each month for the future.	0.837	0.747	0.935
FL6	I estimate my monthly income and expenses.	0.832	0.810	0.931
FL1	I regularly set money aside for saving.	0.792	0.737	0.935
FL7	I have a plan for how to use my money.	0.704	0.792	0.932
FL8	I compare prices when making a purchase.	0.583	0.734	0.935
FL9	I follow a weekly or monthly budget.	0.516	0.666	0.939

Source: SPSS

Five items (FL1, FL2, FL3, FL4, and FL5), which were developed to measure *Savings behaviour*, and four items (FL6, FL7, FL8, and FL9), which were developed to measure *Spending behaviour*, loaded to Factor 2. The factor loadings ranged from 0.516 to 0.931, with a variance of 7.37% and a Cronbach  $\alpha$  of 0.940. Thus, Factor 2 was valid and reliable, and was named *Financial behaviour*. Table 7.60 reports the validity and reliability of Factor 3.

**Table 7.60: Validity and reliability of Factor 3: *Financial attitude***

Variance = 6.94%		Cronbach $\alpha$ = 0.903		
Item	Statements	Loading	Corrected item–total correlation	Cronbach's $\alpha$ if item deleted
FL32	I am satisfied with the way I pay my bills.	0.880	0.798	0.882
FL34	I am prepared to risk some of my own money when saving.	0.877	0.795	0.883
FL31	I am good at managing my money.	0.804	0.750	0.886
FL35	I find it more satisfying to save money for long-term than to spend it.	0.780	0.772	0.884
FL33	I am satisfied with my ability to meet monthly living expenses.	0.767	0.739	0.887
FL36	I spend money today thinking about how I would survive tomorrow.	0.688	0.751	0.886

**Table 7.60 (Cont.): Validity and reliability of Factor 3: *Financial attitude***

FL30	If you have R100 in a savings account and the interest rate is 2% per year. you will have R102 in your savings account after one year.	0.565	0.644	0.894
FL38	I feel confident about making decisions that deal with money.	0.487	0.643	0.894
FL37	I buy things on credit rather than waiting and saving up.	0.405	0.222	0.925

Source: SPSS

Six items (FL30, FL31, FL32, FL33, FL34, and FL35), which were developed to measure *Spending- and saving attitudes*, and three items (FL36, FL37, and FL38), which were developed to measure *Money- and credit attitudes*, loaded to Factor 3. The factor loadings ranged from 0.405 and 0.880, with a variance of 6.94% and a Cronbach  $\alpha$  of 0.903. Thus, Factor 3 was valid and reliable, and was named *Financial attitude*. Table 7.61 reports the validity and reliability of Factor 4.

**Table 7.61: Validity and reliability of Factor 4: *Financial decision-making***

Variance: 6.13%		Cronbach alpha: 0.826		
Item	Statement	Loading	Corrected item-total correlation	Cronbach's $\alpha$ if item deleted
FL46	I make financial decisions based on what my parent(s) has/have taught me.	0.977	0.755	0.733
FL45	I make financial decisions based on what my parent(s) has/have done in similar situations.	0.770	0.735	0.742
FL47	I look to my parent(s) when it comes to managing money.	0.704	0.587	0.809
FL44	I consider terms and conditions before signing credit or investment agreement.	0.470	0.543	0.832

Source: SPSS

Four items (FL44, FL45, FL46, and FL47), which were developed to measure *Financial decision-making*, loaded to Factor 4, as expected. The factor loadings ranged from 0.470 to 0.977, with a variance of 6.13% and a Cronbach  $\alpha$  of 0.826. Thus, Factor 4 was valid and reliable, and was named *Financial decision-making*.

## 7.7 DESCRIPTIVE STATISTICS

This section reports the results of the descriptive statistics and provides the mean scores, standard deviations, and percentages to summarise the data for *Culture*, *Parenting style*, *Parental financial socialisation*, and *Financial literacy*.

### 7.7.1 Culture

Table 7.62 indicates the descriptive statistics for the components of the factor *Culture*.

**Table 7.62: Descriptive statistics for *Culture***

Component	Mean	Std. Dev.	Disagree %	Neutral %	Agree %
<i>Culture</i>	3.6	1.4	44.1	5.3	50.6

Source: SPSS

The respondents scored a mean of 3.6 and standard deviation of 1.4 for *Culture*, with most respondents (50.6%) agreeing that their parents upheld cultural values; taught them that only boys should be involved in family money matters; believed that money matters should not be discussed with children; believed that only girls should do household chores such as cleaning and cooking; taught them about traditions, heritage, and cultural values; and that they participated in cultural activities specific to their family.

### 7.7.2 Parenting Style

Table 7.63 indicates the descriptive statistics for the components of the factor *Parenting style*, namely *Authoritarian*, *Neglectful*, *Authoritative*, and *Permissive*.

**Table 7.63: Descriptive statistics for *Parenting style***

Components	Mean	Std. dev.	Disagree %	Neutral %	Agree %
<i>Authoritarian</i>	3.4	1.5	40.2	6.6	53.2
<i>Neglectful</i>	3.8	1.3	39.8	11.9	48.3
<i>Authoritative</i>	3.1	1.2	43.5	8.9	47.7
<i>Permissive</i>	2.8	1.4	41.0	8.5	50.5

Source: SPSS

Respondents scored a mean of 3.4 and a standard deviation of 1.5 for *Authoritarian style*, with the majority of respondents (53.2%) agreeing that their parents told them that their decisions were final; used physical punishment as a way of discipline; exploded in anger towards them; and criticised them to make them improve.

Respondents scored a mean of 3.8 and a standard deviation of 1.3 for *Neglectful style*, with most respondents (48.3%) agreeing that their parents did not worry whether or not they did the chores they asked them to do; allowed them to do pretty much what they wanted without questioning their decisions; and allowed them to go where they wanted without questioning them.

Respondents scored a mean of 3.1 and a standard deviation of 1.2 for *Authoritative style*, with most respondents (47.7%) agreeing that their parents did fun things with them; spent time just talking to them; would explain why if they wanted them to do something; encouraged them to look at both sides of issues; and encouraged them to talk about their troubles.

For *Permissive style*, the respondents scored a mean of 2.8 and a standard deviation of 1.4, with most respondents (50.5%) agreeing that their parents allowed them to spend their free time as they wanted; had an interest in their activities; usually gave them reasons for rules; and praised them when they did things well. The overall results showed that most parents (53.2%) used the authoritarian style to raise their children.

### **7.7.3 Parental Financial Socialisation**

Table 7.64 shows the descriptive statistics for the components of the factor *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussion*, *Parental financial communication*, and *Parental financial teaching*.

**Table 7.64: Descriptive statistics for the components of *Parental financial socialisation***

Component	Mean	Std. dev.	Disagree %	Neutral %	Agree %
<i>Parental financial behaviour</i>	3.3	1.2	34.6	10.5	54.9
<i>Parental financial monitoring</i>	3.2	1.1	31.5	10.7	57.8
<i>Parental financial discussions</i>	3.1	1.2	38.3	11.7	49.9
<i>Parental financial communication</i>	2.9	1.3	46.1	8.2	45.7
<i>Parental financial teaching</i>	3.0	1.2	33.3	9.7	56.9

Source: SPSS

Respondents scored a mean of 3.3 and a standard deviation of 1.2 for *Parental financial behaviour*, with the majority of respondents (54.9%) agreeing that their parents saved money for the future; used a budget; tracked monthly expenses; and paid bills on time.

Respondents scored a mean of 3.2 and a standard deviation of 1.1 for *Parental financial monitoring*. The majority of respondents (57.8%) agreed that their parents monitored their finances; would give them financial advice; would want to know if they received money from a part-time job; monitored their spending; and restricted their spending.

Respondents scored a mean of 3.1 and a standard deviation of 1.2 for *Parental financial discussions*, with most respondents (49.9%) agreeing that their parents involved them in family financial matters; discussed with them the managing of expenses and avoiding overspending; and discussed checking their credit report.

For *Parental financial communication*, the respondents scored a mean of 2.9 and a standard deviation of 1.3, with most respondents (46.1%) disagreeing, while 45.7% agreed, that their parents spoke to them about the importance of saving; talked to them about things they needed to buy; explained the use of credit; and explained the family spending plan.

For *Parental financial teaching*, respondents scored a mean of 3.0 and a standard deviation of 1.2, with the majority of respondents (56.9%) agreeing that their parents taught them about budgeting, credit, and savings; being a smart shopper; and how to manage money. The overall results indicated that most parents (57.8%) monitored their children's finances, compared to other components of *Parental financial socialisation*.

#### 7.7.4 Financial Literacy

Table 7.65 shows the descriptive statistics for the components of the factor *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.65: Descriptive statistics for the components of *Financial literacy***

Components	Mean	Std. dev.	Disagree %	Neutral %	Agree %
<i>Financial knowledge</i>	3.2	1.1	36.7	12.4	50.9
<i>Financial behaviour</i>	3.0	1.2	43.3	10.2	46.4
<i>Financial attitude</i>	3.1	1.0	39.5	12.2	48.3
<i>Financial decision-making</i>	3.8	0.9	28.0	20.3	51.7

Source: SPSS

Respondents scored a mean of 3.2 with standard deviation of 1.1 for *Financial knowledge*, with the majority of respondents (50.9%) agreeing that they knew they had to keep written or electronic financial records of expenditure; must review and evaluate their spending on a regular basis; knew that if interest rates rise, so do loan repayments; knew the difference between a need and a want; know which key questions to ask when shopping for an item; understood the cost of buying on credit; knew what is in a credit report; knew about saving; knew that value-added tax (VAT) is tax paid on goods and services; and knew that they must have a bank account to have an ATM card. Thus, the respondents scored 50.9% for *Financial knowledge*.

Respondents scored a mean of 3.0 and a standard deviation of 1.2 for *Financial behaviour*. This showed that most respondents (46.4%) agreed that they regularly set money aside for saving; save money each month for the future; save money to achieve long-term financial goals; set money aside for emergencies; estimate monthly income and expenses; have a plan for how to use their money; compare prices when making a purchase; and follow a weekly or monthly budget. The respondents' score for *Financial behaviour* was 46.4%. This score was used to determine the overall level of financial literacy.

For *Financial attitude*, respondents scored a mean of 3.1 and a standard deviation of 1.0, with most respondents (48.3%) agreeing with the statements that they are satisfied with

the way they pay their bills; prepared to risk some of their own money when saving; are good at managing money; find it more satisfying to save money for long-term than to spend it; satisfied with their ability to meet monthly living expenses; spend money today thinking about how they would survive tomorrow; feel confident about making decisions that deal with money; and buy things on credit rather than waiting and saving up.

In terms of *Financial decision-making*, respondents scored a mean 3.8 and a standard deviation of 0.9. This meant that the majority of respondents (51.7%) agreed that they make financial decisions based on what their parents have taught them; make financial decisions based on what their parents have done in similar situations; look at their parents when it comes to managing money; and consider terms and conditions before signing credit or investment agreement. The overall results showed that respondents scored high (51.7%) on *Financial decision-making*, compared to *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.

## **7.8 HYPOTHESIS TESTING**

Descriptive statistics, ANOVA, t-test, correlations, regression analysis, and moderated regression analysis were used to test the hypotheses. This section reports the results.

### **H1: Young black African adults are financially literate.**

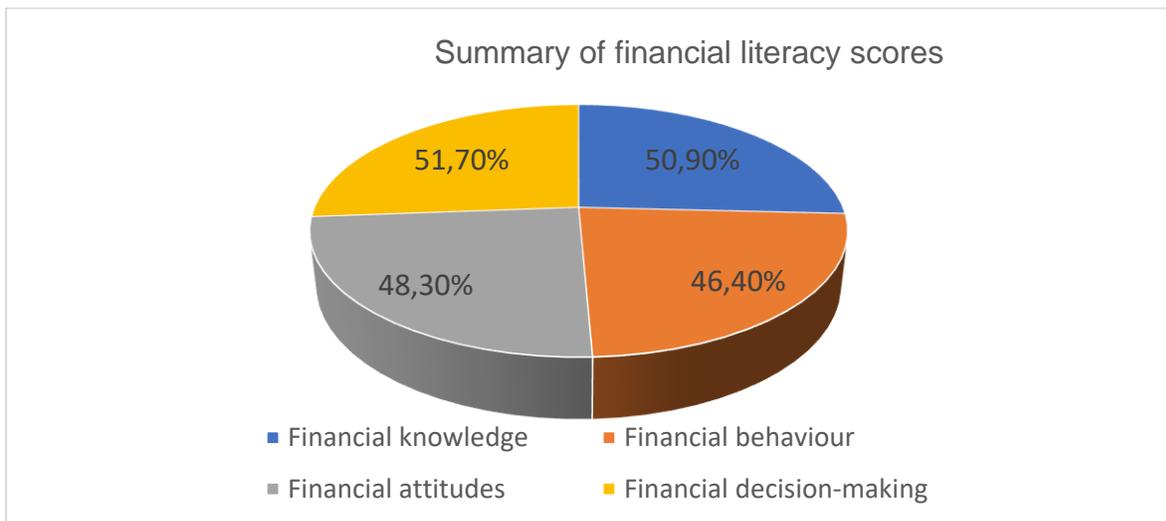
Descriptive statistics was used to test this hypothesis. A five-point Likert scale was used (1 = *Strongly disagree*, 2 = *Disagree*, 3 = *Neutral*, 4 = *Agree*, and 5 = *Strongly agree*), and the responses were grouped into three groups (*Strongly disagree + Disagree = Disagree*; *Neutral*; *Agree + Strongly agree = Agree*). The results were used to determine the score for each component of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. The percentages achieved for *Agree* were considered the score for that component. Table 7.66 shows the scores for the components of *Financial literacy*.

**Table 7.66: Scores for components of *Financial literacy***

Component	Disagree %	Neutral %	Agree %
<i>Financial knowledge</i>	36.7	12.4	50.9
<i>Financial behaviour</i>	43.3	10.2	46.4
<i>Financial attitude</i>	39.5	12.2	48.3
<i>Financial decision-making</i>	28.0	20.3	51.7

Source: SPSS

The majority of respondents agreed (50.9%) with the statements relating to *Financial knowledge*. Most respondents agreed (46.4%) with the statements for *Financial behaviour*. A high number of respondents agreed (48.3%) with the statements for *Financial attitude*, while the majority of respondents agreed (51.7%) with statements for *Financial decision-making*. The percentages of *Agree* were treated as scores and used to calculate *Financial literacy*. Figure 7.21 indicates the summary of scores for each component of *Financial literacy*.



**Figure 7.21: Summary of *Financial literacy* scores**

Source: SPSS

Figure 7.21 indicated that respondents scored 50.9% on *Financial knowledge*, 46.4% on *Financial behaviour*, 48.3% on *Financial attitude*, and 51.7% on *Financial decision-making*. This shows that respondents scored high on *Financial decision-making* and *Financial knowledge*, and low on *Financial behaviour* and *Financial attitude*. Thus, respondents were good at financial decision-making and were financially knowledgeable.

These scores were used to calculate the overall level of *Financial literacy*. Table 7.67 illustrates the overall level of *Financial literacy*, which was determined by averaging the score for all components.

**Table 7.67: Overall *Financial literacy***

Components	Score %
<i>Financial knowledge</i>	50.9
<i>Financial behaviour</i>	46.4
<i>Financial attitude</i>	48.3
<i>Financial decision-making</i>	51.7
<b>Overall <i>Financial literacy</i></b>	<b>49.3</b>

Source: SPSS

The overall *Financial literacy* of respondents was 49.3%. The score on *Financial literacy* was categorised into *Low financial literacy* ( $= \leq 49\%$ ); *Moderate financial literacy* ( $= 50\%–64\%$ ); and *High financial literacy* ( $= \geq 65\%$ ) (Nomlala, 2019). This meant that the level of financial literacy amongst young black African adults in Fetakgomo Tubatse and Intsika Yethu local municipality is low. The hypothesis decision is shown in Table 7.68.

**Table 7.68: Hypothesis decision for *Financial literacy***

Hypothesis	Results
H1: Young black African adults are financially literate.	Rejected

Source: Author's compilation

**H2: Young black African adults are financially socialised by their parents.**

Descriptive statistics was used to test this hypothesis. A five-point Likert scale was used to measure *Parental financial socialisation* (1 = *Strongly disagree*; 2 = *Disagree*; 3 = *Neutral*; 4 = *Agree*; and 5 = *Strongly agree*), and the responses were grouped into three groups (*Strongly disagree* + *Disagree* = *Disagree*; *Neutral*; *Agree* + *Strongly agree* = *Agree*). These were used to determine the score for each component of *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*, to determine *Parental financial socialisation*. The percentages achieved for

Agree were considered the score for that component. Table 7.69 shows the scores for the components of *Parental financial socialisation*.

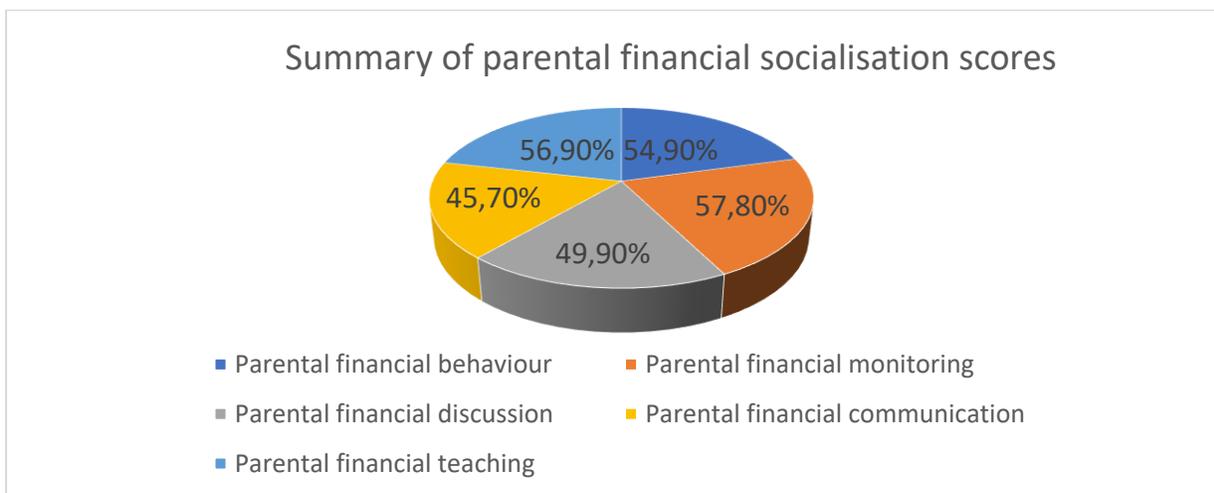
**Table 7.69: Scores for the components of *Parental financial socialisation***

Component	Disagree %	Neutral %	Agree %
<i>Parental financial behaviour</i>	34.6	10.5	54.9
<i>Parental financial monitoring</i>	31.5	10.7	57.8
<i>Parental financial discussions</i>	38.3	11.7	49.9
<i>Parental financial communication</i>	46.1	8.2	45.7
<i>Parental financial teaching</i>	33.3	9.7	56.9

Source: SPSS

The majority of respondents (54.9%) agreed with the statements relating to *Parental financial behaviour*, and the majority of respondents (57.8%) agreed that they received *Parental financial monitoring*. Most respondents (49.9%) agreed that they received *Parental financial discussions*, and a high number of respondents (45.7%) agreed that they received *Parental financial communication*. The majority of respondents (56.9%) agreed with the statements of *Parental financial teaching*.

The percentages of *Agree* were treated as scores and were used to calculate *Parental financial socialisation*. The summary of scores for each component of *Parental financial socialisation* is presented in Figure 7.22.



**Figure 7.22: Summary of *Parental financial socialisation* scores**

Source: SPSS

Respondents' scores for *Parental financial behaviour* (54.9%), *Parental financial monitoring* (57.8%), *Parental financial discussions* (49.9%), *Parental financial communication* (45.7%), and *Parental financial teaching* (56.9%) indicated that respondents scored high on *Parental financial monitoring*, *Parental financial teaching*, and *Parental financial behaviour*, and low on *Parental financial communication* and *Parental financial discussions*. Thus, more parents monitored their children's finances, and fewer communicated about finances. These scores were used to calculate the overall score on *Parental financial socialisation*, shown in Table 7.70, which was calculated by averaging the scores on all the components.

**Table 7.70: Overall score on *Parental financial socialisation***

Components	Score %
<i>Parental financial behaviour</i>	54.9
<i>Parental financial monitoring</i>	57.8
<i>Parental financial discussions</i>	49.9
<i>Parental financial communication</i>	45.7
<i>Parental financial teaching</i>	56.9
<b>Overall level of <i>parental financial socialisation</i></b>	<b>53.0</b>

Source: SPSS

The overall score on *Parental financial socialisation* was 53.0%. The scores on *Parental financial socialisation* were categorised into *Low* ( $\leq 49\%$ ), *Moderate* (50%–64%), and *High* ( $\geq 65\%$ ). This meant that the score of *Parental financial socialisation* in Fetakgomo Tubatse and Intsika Yethu local municipalities was moderate. The decision regarding the relevant hypothesis is shown in Table 7.71.

**Table 7.71: Hypothesis decision for *Parental financial socialisation***

Hypothesis	Results
H2: Young black African adults are financially socialised by their parents.	Accepted

Source: Author's compilation

**H3: There is a significant difference in parental financial socialisation across parent SES (parental income and parental level of education).**

*Parental SES* was measured through *Parental income* and *Parental level of education* in order to test its relationship with *Parental financial socialisation*. ANOVA was used to test these relationships.

**H3a: There is a significant difference in parental financial socialisation across parental income levels.**

Table 7.72 shows the results of Levene’s test of homogeneity of variance between *Parental income* and the components of *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*.

**Table 7.72: Tests of homogeneity of variances for *Parental income* and *Parental financial socialisation***

	<b>Levene statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
<i>Parental financial behaviour</i>	34.868	4	467	0.000
<i>Parental financial monitoring</i>	14.773	4	467	0.000
<i>Parental financial discussions</i>	16.019	4	467	0.000
<i>Parental financial communication</i>	13.360	4	467	0.000
<i>Parental financial teaching</i>	13.360	4	467	0.000

Source: SPSS

Levene's test for equality of variance revealed that all components of *Parental financial socialisation* showed different variances across the groups. All had a  $p$ -value < 0.05. To determine the difference in the mean scores, the Welch robust test of equality of means was conducted. Table 7.73 reports the results.

**Table 7.73: Robust tests of equality of means of *Parental income* and *Parental financial socialisation***

		<b>Statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
<i>Parental financial behaviour</i>	Welch	101.160	4	135.538	0.000
<i>Parental financial monitoring</i>	Welch	68.510	4	157.282	0.000
<i>Parental financial discussions</i>	Welch	105.669	4	143.228	0.000
<i>Parental financial communication</i>	Welch	80.901	4	132.830	0.000
<i>Parental financial teaching</i>	Welch	120.663	4	138.585	0.000

Source: SPSS

The test for equality of means revealed differences in mean scores across *Parental income* for *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*. All the *p*-values were less than 0.05. The Tukey HSD was used to conduct post hoc tests to show homogenous groups and where the differences lay. Table 7.74 reports the results of the Tukey HSD test of homogenous subsets.

**Table 7.74: Tukey HSD test of homogenous subsets of the relationship between**

<b>Parental financial behaviour</b>				
Tukey B <sub>a,b</sub>				
Income	N	Subset for $\alpha = 0.05$		
		1	2	3
R5001–R10 000	131	2.3924		
less than R5 000	152		2.8697	
R20 001+	26			3.9231
R10 001 – R15 000	85			4.1059
R15001 – R20 000	78			4.3359

<b>Parental financial teaching</b>				
Tukey B <sub>a,b</sub>				
Income	N	Subset for $\alpha = 0.05$		
		1	2	3
R5 001 – R10 000	131	2.1921		
less than R5 000	152		2.6425	
R15 001 – R20 000	78			3.9274
R10 001 – R15 000	85			4.0000
R20 001+	26			4.0577

<b>Parental financial communication</b>				
Tukey B <sub>a,b</sub>				
Income	N	Subset for $\alpha = 0.05$		
		1	2	3
R5001-R10 000 less than R5 000	131	2.1584		
R10001-R15 000	85			3.7471
R20 001+	26			3.7788
R15 001-R20 000	78			4.1603

<b>Parental financial discussions</b>				
Tukey B <sub>a,b</sub>				
Income	N	Subset for $\alpha = 0.05$		
		1	2	3
R5 001 – R10 000	131	2.1664		
less than R5 000	152		2.7408	
R10 001 – R15 000	85			3.9176
R15 001 – R20 000	78			4.0692
R20 001+	26			4.2000

<b>Parental financial monitoring</b>				
Tukey B <sub>a,b</sub>				
Income	N	Subset for $\alpha = 0.05$		
		1	2	3
R5001 – R10 000	131	2.6240		
less than R5 000	152	2.8980		
R10 001 – R15 000	85		3.7382	
R15 001 – R20 000	78		3.9391	
R20001+	26			4.3558

**Parental income level and Parental financial socialisation**

Source: SPSS

The following sub-sub-hypotheses were tested:

**H3a(i): There is a significant difference in parental financial behaviour across parental income levels.**

The results showed that there were three homogeneous groups with regard to *Parental financial behaviour*. This means that there was a difference in *Parental financial behaviour* across *Parental income*. Group 1 had the highest mean score for *R5 001 – R10 000* ( $M = 2.392$ ), and Group 2 had the highest means score for *Less than R5 000* ( $M = 2.869$ ). These means scores were slightly lower than those of Group 3 for *R20 000+* ( $M = 3.923$ ), *R10 001 – R15 000* ( $M = 4.105$ ), and *R15 001 – R20 000* ( $M = 4.335$ ). Therefore, parents with a high income level are more likely to display high parental financial behaviour. ANOVA established a strong statistically significant relationship between *Parental income* and *Parental financial behaviour*, with  $F = 69.246$  and  $p = 0.000$ . Thus, there was a significant difference in *Parental financial behaviour* across *Parental income*, and the sub-sub-hypothesis was accepted.

**H3a(ii): There is a significant difference in parental financial monitoring across parental income levels.**

The results indicated that there were three homogeneous groups for *Parental financial monitoring*. Therefore, there were a statistically significant differences in *Parental financial monitoring* across *Parental income*. Group 1's mean scores for *R5 001 – R10 000* ( $M = 2.624$ ) and *Less than R5 000* ( $M = 2.898$ ) were lower than the mean scores for Group 2, which were  $M = 3.738$  for *R10 001 – R15 000* and  $M = 3.939$  for *R15 001 – R20 000*. Group 3's parents earned a high income, evident in the highest mean score for *R20 000+* ( $M = 4.355$ ). This suggests that parents with a higher income are more likely to monitor their children's finances. ANOVA showed a strong statistically significant relationship between *Parental income* and *Parental financial monitoring*, with  $F = 39.584$  and  $p = 0.000$ . Therefore, the sub-sub-hypothesis was accepted.

**H3a(iii): There is a significant difference in parental financial discussions across parental income levels.**

The results showed that there were three homogeneous groups. This meant that there were differences in *Parental financial discussions* across *Parental income*. Group 1's mean score for *R5 001 – R10 000* ( $M = 2.166$ ) and Group 2's mean score for *Less than R5 000* ( $M = 2.740$ ) were lower than the mean scores for Group 3 for *R10 001 – R15 000* ( $M = 3.917$ ), *R15 001 – R20 000* ( $M = 4.069$ ), and *R20 000+* ( $M = 4.200$ ). Thus, the higher the parental income is, the more likely it is that the parents will discuss family financial matters with their children. ANOVA indicated a strong statistically significant relationship between *Parental income* and *Parental financial discussions*, with  $F = 79.124$  and  $p = 0.000$ . Therefore, the sub-sub-hypothesis was accepted.

**H3a(iv): There is a significant difference in parental financial communication across parental income levels.**

In terms of *Parental financial communication*, the results revealed that there were two homogenous groups. Group 1's mean scores for *R5 001 – R10 000* ( $M = 2.158$ ) and *Less than R5 000* ( $M = 2.447$ ) were lower than the mean scores of Group 2 for *R10 001 – R15 000* ( $M = 3.747$ ), *R20 000+* ( $M = 3.778$ ), and *R15 001 – R20 000* ( $M = 4.160$ ). This means that parents with a high income are likely to communicate financial matters with their children. ANOVA established a strong statistically significant relationship between *Parental income* and *Parental financial communication*, with  $F = 65.831$  and  $p = 0.000$ . Thus, this sub-sub-hypothesis was accepted.

**H3a(v): There is a significant difference in parental financial teaching across parental income levels.**

For *Parental financial teaching*, the results indicated that there were three homogenous groups. Group 1's mean score for *R5 001 – R10 000* ( $M = 2.192$ ) and Group 2's mean score for *Less than R5 000* ( $M = 2.642$ ) were lower than the mean scores of Group 3 for *R10 001 – R15 000* ( $M = 3.927$ ), *R15 001 – R20 000* ( $M = 4.000$ ), and *R20 000+* ( $M = 4.057$ ). This means that the higher the parental income is, the more likely it is that

the parents will teach their children about finances. ANOVA showed a strong statistically significant relationship between *Parental income* and *Parental financial teaching*, with  $F = 94.010$  and  $p = 0.000$ . Thus, this sub-sub-hypothesis was accepted.

Therefore, all the sub-sub-hypotheses H3a(i), H3a(ii), H3a(iii), H3a(iv) and H3a(v) for the sub-hypothesis (H3a) — that there is a significant difference in parental financial socialisation across parental income level — were accepted. Therefore, sub-hypothesis (H3a) was accepted.

**H3b: There is a significant difference in parental financial socialisation across parental levels of education.**

ANOVA was used to test the sub-hypotheses related to parental level of education and parental financial socialisation. Table 7.75 shows the results of Levene’s test of homogeneity of variance between *Parental level of education* and the components of *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*.

**Table 7.75: Tests of homogeneity of variances: *Parental level of education* and *Parental financial socialisation***

	<b>Levene statistic</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
<i>Parental financial behaviour</i>	9.055	5	466	0.000
<i>Parental financial monitoring</i>	2.534	5	466	0.028
<i>Parental financial discussions</i>	4.964	5	466	0.000
<i>Parental financial communication</i>	3.191	5	466	0.008
<i>Parental financial teaching</i>	6.761	5	466	0.000

Source: SPSS

The results showed that all components of *Parental financial socialisation* had different variances across the groups, which all had a  $p$ -value of  $< 0.05$ . The Welch robust test of equality of means was used to determine differences in the mean scores. Table 7.76 reports the results.

**Table 7.76: Robust tests of equality of means for *Parental level of education* and *Parental financial socialisation***

		<b>Statistica</b>	<b>df1</b>	<b>df2</b>	<b>Sig.</b>
<i>Parental financial behaviour</i>	Welch	73.274	5	171.838	0.000
<i>Parental financial monitoring</i>	Welch	49.443	5	168.905	0.000
<i>Parental financial discussions</i>	Welch	79.228	5	167.795	0.000
<i>Parental financial communication</i>	Welch	82.641	5	164.108	0.000
<i>Parental financial teaching</i>	Welch	110.817	5	168.835	0.000

Source: SPSS

The test for equality of means revealed differences in mean scores across *Parental level of education* for *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*. All the *p*-values were less than 0.05. The Tukey HSD was used to conduct post hoc tests to determine homogenous groups and where the differences lay. Table 7.77 reports the results.

**Table 7.77: Tukey HSD test of homogenous subsets between *Parental level of education* and *Parental financial socialisation***

<b>Parental financial behaviour</b>			
Tukey Ba,b			
Education	N	Subset for $\alpha = 0.05$	
		1	2
Lower than Grade 12	110	2.4491	
Grade 12	132	2.4697	
Master's degree/Doctorate	38		3.9842
Diploma	74		4.0027
Honours degree	50		4.1920
Bachelor's degree	68		4.2088

<b>Parental financial communication</b>			
Tukey Ba,b			
Education	N	Subset for $\alpha = 0.05$	
		1	2
Lower than Grade 12	110	2.0432	
Grade 12	132	2.0833	
Master's degree/Doctorate	38		3.7171
Diploma	74		3.8345
Bachelor's degree	68		3.9779
Honours degree	50		4.0150

<b>Parental financial Monitoring</b>			
Tukey Ba,b			
Education	N	Subset for $\alpha = 0.05$	
		1	2
Lower than Grade 12	110	2.5773	
Grade 12	132	2.5833	
Bachelor's degree	68		3.7022
Diploma	74		3.9392
Master's degree/Doctorate	38		3.9737
Honours degree	50		4.0750

<b>Parental financial discussions</b>			
Tukey Ba,b			
Education	N	Subset for $\alpha = 0.05$	
		1	2
Grade 12	132	2.1970	
Lower than Grade 12	110	2.4200	
Diploma	74		3.7270
Master's degree/Doctorate	38		3.8579
Bachelor's degree	68		4.0412
Honours degree	50		4.1320

<b>Parental financial teaching</b>			
Tukey Ba,b			
Education	N	Subset for $\alpha = 0.05$	
		1	2
Grade 12	132	2.1932	
Lower than Grade 12	110	2.2939	
Diploma	74		3.7680
Honours degree	50		3.8767
Bachelor's degree	68		3.9853
Master's degree/Doctorate	38		4.0833

Source: SPSS

The following sub-sub-hypotheses were tested:

**H3b(i): There is a significant difference in parental financial behaviour across parental levels of education.**

The results showed that there were two homogeneous groups for *Parental financial behaviour*, which indicated differences between the groups. Group 1's mean scores for *Lower than Grade 12* ( $M = 2.449$ ) and *Grade 12* ( $M = 2.569$ ) were slightly lower than the mean scores of Group 2 for *Master's degree/Doctorate* ( $M = 3.984$ ), *Diploma* ( $M = 4.003$ ),

*Honours degree* (M = 4.192), and *Bachelor's degree* (M = 4.209). This means that parents with a high level of education are more likely to display high parental financial behaviour. ANOVA established a strong statistically significant relationship between *Parental level of education* and *Parental financial behaviour*, with  $F = 39.010$  and  $p = 0.000$ . Therefore, this sub-sub-hypothesis was accepted.

**H3b(ii): There is a significant difference in parental financial monitoring across parental levels of education.**

The results showed two homogenous groups for *Parental financial monitoring*. Thus, there were differences in *Parental financial monitoring* across *Parental level of education*. Group 1's mean scores for *Lower than Grade 12* (M = 2.577) and *Grade 12* (M = 2.583) were lower than Group 2's mean scores for *Degree* (M = 3.702), *Diploma* (M = 3.939), *Master's degree/Doctorate* (M = 3.973), and *Honours degree* (M = 4.075). This suggests that parents with a high level of education are more likely than parents with low level of education to monitor the finances of their children. ANOVA showed a positive statistically significant relationship between *Parental level of education* and *Parental financial monitoring*, with  $F = 46.234$  and  $p = 0.012$ . Thus, this sub-sub-hypothesis was accepted.

**H3b(iii): There is a significant difference in parental financial discussions across parental levels of education.**

For *Parental financial discussions*, the results indicated that there were two homogenous groups. Therefore, there were differences in *Parental financial discussions* across *Parental level of education*. Group 1's mean scores for *Grade 12* (M=2.197) and *Lower than Grade 12* (M = 2.420) were lower than Group 2's mean scores for *Diploma* (M = 3.727), *Master's degree/Doctorate* (M = 3.857), *Bachelor's degree* (M = 4.041), and *Honours degree* (M = 4.132). This means that parents with a diploma, degree, honours degree, or Master's degree/doctorate are more likely to discuss financial matters with their children. ANOVA indicated a statistically significant relationship between *Parental level of education* and *Parental financial discussions*, with  $F = 64.876$  and  $p = 0.031$ . Therefore, this sub-sub-hypothesis was accepted.

**H3b(iv): There is a significant difference in parental financial communication across parental levels of education.**

With regard to *Parental financial communication*, the results revealed that there were two homogeneous groups, which suggested differences in *Parental financial communication* across *Parental level of education*. Group 1's mean scores for *Lower than Grade 12* (M = 2.043) and *Grade 12* (M = 2.083) were lower than Group 2's mean scores for *Master's degree/Doctorate* (M = 3.717), *Diploma* (M = 3.834), *Bachelor's degree* (M = 3.977), and *Honours degree* (M = 4.015). This means that parents with a high level of education are more likely to communicate financial matters with their children. ANOVA established a statistically significant relationship between *Parental level of education* and *Parental financial communication*, with  $F = 48.765$  and  $p = 0.000$ . Therefore, this sub-sub-hypothesis was accepted.

**H3b(v): There is a significant difference in parental financial teaching across parental levels of education.**

The results showed that there were two homogeneous groups for *Parental financial teaching*, which meant that there were differences in *Parental financial teaching* across *Parental level of education*. Group 1's mean scores for *Grade 12* (M = 2.193) and *Lower than Grade 12* (M = 2.293) were lower than Group 2's scores for *Diploma* (M = 3.768), *Honours degree* (M = 3.876), *Bachelor's degree* (M = 3.985), and *Master's degree/Doctorate* (M = 4.083). This means that parents with a higher level of education are more likely to teach their children about finances. ANOVA indicated a significant relationship between *Parental financial teaching* and *Parental level of education level*, with  $F = 36.453$  and  $p = 0.00$ . Therefore, this sub-sub-hypothesis was accepted.

Therefore, all the sub-sub-hypotheses H3b(i), H3b(ii), H3b(iii), H3b(iv) and H3b(v) for the sub-hypothesis (H3b) — that there is a significant difference in parental financial socialisation across parental income level — were accepted. Therefore, sub-hypothesis (H3b) was accepted.

Table 7.78 indicates the summary of the hypothesis decisions for *Parental SES (Parental income and Parental level of education)* and *Parental financial socialisation*.

**Table 7.78: Summary of the hypothesis decisions for parental SES (parental income and parental level of education) and parental financial socialisation**

<b>Hypothesis</b>	<b>Results</b>
H3a: There is a significant difference in parental financial socialisation across parental income levels.	Accepted
H3b: There is a significant difference in parental financial socialisation across parental levels of education.	Accepted

Source: Author's own compilation

As indicated in Table 7.78, all two sub-hypotheses were accepted H3a and H3b, thus supporting H3 — that there is a significant difference in parental financial socialisation across parental SES. Thus, this hypothesis was accepted.

**H4: There is a significant difference in parental financial socialisation according to child's gender.**

To test (H4), the following sub-hypotheses were tested:

**H4a: There is a significant difference in parental financial behaviour according to the child's gender.**

**H4b: There is a significant difference in parental financial monitoring according to the child's gender.**

**H4c: There is a significant difference in parental financial discussions according to the child's gender.**

**H4d: There is a significant difference in parental financial communication according to the child's gender.**

**H4e: There is a significant difference on parental financial teaching according to the child's gender.**

T-tests were performed to test these sub-hypotheses; the results are reported in Table 7.79.

**Table 7.79: Descriptive statistics of *Parental financial socialisation* according to *Child's gender***

	<b>Gender</b>	<b>N</b>	<b>Mean</b>	<b>Std. dev.</b>	<b>Std. error mean</b>
<i>Parental financial behaviour</i>	Male	157	3.4331	1.21821	0.09722
	Female	315	3.1740	1.29318	0.07286
<i>Parental financial monitoring</i>	Male	157	3.3439	1.16211	0.09275
	Female	315	3.1667	1.14807	0.06469
<i>Parental financial discussions</i>	Male	157	3.2344	1.25702	0.10032
	Female	315	3.0229	1.23628	0.06966
<i>Parental financial communication</i>	Male	157	3.1354	1.34822	0.10760
	Female	315	2.8690	1.33460	0.07520
<i>Parental financial teaching</i>	Male	157	3.1614	1.19776	0.09559
	Female	315	2.9979	1.14531	0.06453

Source: SPSS

The results indicated a higher score on *Parental financial behaviour* for *Male* ( $M = 3.433$ ;  $SD = 1.218$ ) than for *Female* ( $M = 3.174$ ;  $SD = 1.293$ ). However, these results did not show whether the difference in mean scores was significant. To determine whether the difference was significant, Levene's test for equality of variance was conducted. The results showed that, for *Parental financial monitoring*, the score for *Male* ( $M = 3.343$ ;  $SD = 1.162$ ) was higher than for *Female* ( $M = 3.166$ ;  $SD = 1.148$ ). Thus, male children are more likely than female children to receive parental financial monitoring.

In terms of *Parental financial discussions*, the results revealed that the score for *Male* ( $M = 3.234$ ;  $SD = 1.257$ ) was higher than for *Female* ( $M = 3.022$ ;  $SD = 1.236$ ). Therefore, male children are more likely than female children to be involved in financial discussions by their parents. However, the results did not indicate whether the difference in the means was significant.

Similarly, for *Parental financial communication*, the results indicated that *Male* ( $M = 3.135$ ;  $SD = 1.348$ ) had a higher score than *Female* ( $M = 2.869$ ;  $SD = 1.334$ ). This means that male children are more likely to receive financial communication from their parents. For *Parental financial teaching*, the results showed that *Male* ( $M = 3.161$ ;  $SD = 1.197$ ) had a higher score than *Female* ( $M = 2.997$ ;  $SD = 1.145$ ). Thus, male children are more likely than female children to be taught about finances by their parents.

Table 7.80 shows the results of the independent samples test of equality of variances between *Child's gender* and *Parental financial socialisation*, which was done to determine whether the difference in mean scores was significant.

**Table 7.80: Independent samples test of equality of variances between *Child's gender* and *Parental financial socialisation***

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
<i>Parental financial behaviour</i>	Equal variances assumed	5.175	0.023	2.091	470	0.037	0.25915	0.12395	0.01558	0.50272
	Equal variances not assumed			2.133	328.900	0.034	0.25915	0.12150	0.02015	0.49816
<i>Parental financial monitoring</i>	Equal variances assumed	0.006	0.939	1.574	470	0.116	0.17728	0.11262	-0.04401	0.39858
	Equal variances not assumed			1.568	308.427	0.118	0.17728	0.11308	-0.04522	0.39978
<i>Parental financial discussions</i>	Equal variances assumed	0.237	0.627	1.742	470	0.082	0.21154	0.12145	-0.02712	0.45020
	Equal variances not assumed			1.732	307.202	0.084	0.21154	0.12213	-0.02878	0.45186
<i>Parental financial communication</i>	Equal variances assumed	0.731	0.393	2.036	470	0.042	0.26630	0.13083	0.00923	0.52338
	Equal variances not assumed			2.029	308.975	0.043	0.26630	0.13127	0.00800	0.52460
<i>Parental financial teaching</i>	Equal variances assumed	1.382	0.240	1.439	470	0.151	0.16348	0.11362	-0.05978	0.38673
	Equal variances not assumed			1.417	299.665	0.157	0.16348	0.11533	-0.06349	0.39044

Source: SPSS

**H4a: There is a significant difference in parental financial behaviour according to the child's gender.**

The t-test results showed that *Parental financial behaviour* was statistically significantly different according to *Child's gender* ( $t(472) = 2.133$ ;  $p = 0.034$ ). The mean of *Parental financial behaviour* for *Male* ( $M = 3.433$ ;  $SD = 1.218$ ) was significantly higher than for *Female* ( $M = 3.174$ ;  $SD = 1.293$ ). The eta-squared effect size given by  $n^2 = t^2/t^2 + (N1+N2-2)$  was,  $n^2 = 0.009 = ((2.133)^2 / ((2.133)^2 + 157 + 315 - 2))$ .

where:  $t^2$  = t-value squared,  $N1$  = sample size for first group, and  $N2$  = sample size for the second group. Based on the guidelines proposed by Cohen (1988) for interpreting eta-squared ( $.01$  = small effect;  $.06$  = moderate effect;  $.14$  = large effect), the  $n^2 = 0.009$  was a small effect. Only 0.9% of the variability in *Parental financial behaviour* was explained by *Child's gender*. Therefore, this sub-hypothesis was accepted.

**H4b: There is a significant difference in parental financial monitoring according to the child's gender.**

For *Parental financial monitoring*, the results indicated that there was no statistically significant difference according to *Child's gender* ( $t(472) = 1.574$ ;  $p = 0.116$ ). The mean *Parental financial monitoring* for *Male* ( $M = 3.343$ ;  $SD = 1.162$ ) was not significantly higher than for *Female* ( $M = 3.166$ ;  $SD = 1.148$ ). The magnitude of the difference in the means was very small (eta-squared = 0.005). Only 0.5% of the amount of variability in *Parental financial monitoring* was explained by *Child's gender*. Therefore, this sub-hypothesis was rejected.

**H4c: There is a significant difference in parental financial discussions according to the child's gender.**

In terms of *Parental financial discussions*, the results showed that there was no statistically significant difference according to *Child's gender* ( $t(472) = 1.742$ ;  $p = 0.082$ ). The mean *Parental financial discussions* for *Male* ( $M = 3.234$ ;  $SD = 1.257$ ) was not significantly higher than that of *Female* ( $M = 3.022$ ;  $SD = 1.236$ ). The magnitude of the

difference in the means was very small ( $\eta^2 = 0.006$ ); only 0.6% of the amount of variability in *Parental financial discussions* was explained by *Child's gender*. Therefore, this sub-hypothesis was rejected.

**H4d: There is a significant difference in parental financial communication according to the child's gender.**

For *Parental financial communication*, the results indicated that there was a statistically significant difference according to *Child's gender* ( $t(472) = 2.036$ ;  $p = 0.042$ ). The mean of *Parental financial communication* for *Male* ( $M = 3.135$ ;  $SD = 1.348$ ) was significantly higher than for *Female* ( $M = 2.869$ ;  $SD = 1.334$ ). The magnitude of the difference in the means was very small ( $\eta^2 = 0.008$ ). Only 0.8% of the variability in *Parental financial monitoring* was explained by *Child's gender*. This sub-hypothesis was accepted.

**H4e: There is a significant difference in parental financial teaching according to the child's gender.**

For *Parental financial teaching*, the results showed that there was no statistically significant difference according to *Child's gender* ( $t(472) = 1.439$ ;  $p = 0.151$ ). The mean *Parental financial teaching* for *Male* ( $M = 3.161$ ;  $SD = 1.197$ ) was not significantly higher than for *Female* ( $M = 2.997$ ;  $SD = 1.145$ ). The magnitude of the difference in the means was very small ( $\eta^2 = 0.004$ ). Only 0.4% of the variability in *Parental financial teaching* was explained by *Child's gender*. Therefore, this hypothesis was rejected.

Therefore, not all the sub-hypotheses for the main hypothesis — that there is a significant difference in parental financial socialisation according to the child's gender — were accepted. Sub-hypotheses H4b, H4c, and H4e were rejected, while H4a and H4d were accepted. Therefore, H4 was rejected. Table 7.81 indicates the summary of the hypothesis decisions for parental financial socialisation according to the child's gender.

**Table 7.81: Summary of the hypothesis decisions: Parental financial socialisation and child's gender**

Hypothesis	Results
H4a: There is a significant difference in parental financial behaviour according to the child's gender.	Accepted
H4b: There is a significant difference in parental financial monitoring according to the child's gender.	Rejected
H4c: There is a significant difference in parental financial discussions according to the child's gender.	Rejected
H4d: There is a significant difference in parental financial communication according to the child's gender.	Accepted
H4e: There is a significant difference in parental financial teaching according to the child's gender.	Rejected

Source: Author's own compilation

**H5: There is a significant difference in parental financial socialisation according to parental gender.**

To test H5, sub-hypotheses H5a, H5b, H5c, H5d and H5e were tested using ANOVA. Table 7.82 reports the results of Levene's test of homogeneity of variance of the relationship between *Parental gender* and the components of *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*.

**Table 7.82: Tests of homogeneity of variances between *Parental gender* and *Parental financial socialisation***

	Levene Statistic	df1	df2	Sig.
<i>Parental financial behaviour</i>	0.792	2	469	0.454
<i>Parental financial monitoring</i>	0.182	2	469	0.834
<i>Parental financial discussions</i>	0.009	2	469	0.991
<i>Parental financial communication</i>	0.002	2	469	0.998
<i>Parental financial teaching</i>	0.009	2	469	0.380

Source: SPSS

The results showed that all components of *Parental financial socialisation* had different variances across the groups, which all had a  $p$ -value  $> 0.05$ . The Welch robust test of equality of means was used to determine the differences in the mean scores. Table 7.83 reports the results.

**Table 7.83: Robust tests of equality of means for *Parental gender* and *Parental financial socialisation***

		Statistic <sup>a</sup>	df1	df2	Sig.
<i>Parental financial behaviour</i>	Welch	2.579	2	150.240	0.079
<i>Parental financial monitoring</i>	Welch	1.984	2	149.002	0.141
<i>Parental financial discussions</i>	Welch	5.616	2	147.540	0.004
<i>Parental financial communication</i>	Welch	3.399	2	148.536	0.036
<i>Parental financial teaching</i>	Welch	2.523	2	146.978	0.044

Source: SPSS

The results showed that not all the *p*-values were less than 0.05. The *p*-values for *Parental financial behaviour* (0.079), and *Parental financial monitoring* (0.141) were above 0.05 and were thus not significant. The *p*-values for *Parental financial discussions* (0.004), *Parental financial communication* (0.036), and *Parental financial teaching* (0.044) were significant (< 0.05). The Tukey HSD was used to conduct post hoc tests to determine homogenous groups and where the differences lay. Table 7.84 reports the results.

**Table 7.84: Tukey HSD test of homogenous subsets between *Parental gender* and *Parental financial socialisation***

<b><i>Parental financial behaviour</i></b>				<b><i>Parental financial monitoring</i></b>			
Tukey Ba,b				Tukey Ba,b			
Parental gender	N	Subset for $\alpha = 0.05$		Parental gender	N	Subset for $\alpha = 0.05$	
		<b>1</b>	<b>2</b>			<b>1</b>	<b>2</b>
Both parents	62	2.5903		Both parents	62	2.4919	
Female parent	296	3.1932		Male parent	114	3.1513	
Male parent	114	3.2544		Female parent	296	3.1985	
<b><i>Parental financial discussions</i></b>				<b><i>Parental financial communication</i></b>			
Tukey Ba,b				Tukey Ba,b			
Parental gender	N	Subset for $\alpha = 0.05$		Parental gender	N	Subset for $\alpha = 0.05$	
		<b>1</b>	<b>2</b>			<b>1</b>	<b>2</b>
Both parents	62	2.4387		Both parents	62	2.3347	
Male parent	114	2.8018		Female parent	296	2.8564	
Female parent	296		3.1331	Male parent	114		3.0154
<b><i>Parental financial teaching</i></b>							
Tukey Ba,b							
Parental gender	N	Subset for $\alpha = 0.05$					
		<b>1</b>	<b>2</b>				
Both parents	62	2.3737					
Male parent	114	3.0011					
Female parent	296		3.4501				

Source: SPSS

The following sub-hypotheses were tested:

**H5a: There is a significant difference in parental financial behaviour according to parental gender.**

The results showed that there was one homogeneous group for *Parental financial behaviour*, which indicated that there was no difference in *Parental financial behaviour* according to *Parental gender*. ANOVA showed that there was no significant relationship between *Parental gender* and *Parental financial behaviour*, with  $F = 2.510$  and  $p = 0.082$ . This meant that parental financial behaviour cannot be explained by parental gender. Therefore, this sub-hypothesis was rejected.

**H5b: There is a significant difference in parental financial monitoring according to parental gender.**

The results showed that there was one group for *Parental financial monitoring*. Thus, there was no statistically significant difference in *Parental financial monitoring* according to *Parental gender*. ANOVA further indicated that there was no significant relationship between *Parental gender* and *Parental financial monitoring*, with  $F = 1.975$  and  $p = 0.140$ . This means that parental financial monitoring cannot be explained by parental gender. Therefore, this sub-hypothesis was rejected.

**H5c: There is a significant difference in parental financial discussions according to parental gender.**

The results indicated that there were two homogeneous groups. This meant that there were differences in *Parental financial discussions* according to *Parental gender*. Group 1's mean score for *Both parents* (2.438) and *Male* (2.801) were lower than the mean score for *Female* (3.133) in Group 2. Thus, female parents are more likely than male parents to discuss financial matters with their children. ANOVA showed a statistically significant relationship between *Parental gender* and *Parental financial discussions*, with  $F = 5.770$  and  $p = 0.003$ . Therefore, this sub-hypothesis was accepted.

**H5d: There is a significant difference in parental financial communication according to parental gender.**

The results showed that there were two homogeneous groups. This meant that there were differences in *Parental financial communication* across *Parental gender*. Group 1's mean score for *Both parents* (2.334) and *Female parent* (2.856) were lower than the mean score for *Male parent* (3.015) in Group 2. Therefore, male parents are more likely than female parents to communicate financial matters to their children. ANOVA established a significant relationship between *Parental gender* and *Parental financial communication*, with  $F = 3.421$  and  $p = 0.033$ . Therefore, this sub-hypothesis was accepted.

**H5e: There is a significant difference in parental financial teaching according to parental gender.**

The results indicated that there was one homogeneous group. This meant that there were differences in *Parental financial teaching* across *Parental gender*. Group 1's mean score for *Both parents* (2.373) and *Male parent* (3.001) were lower than the mean score for *Female parent* (3.450) in Group 2. Therefore, female parents are more likely than male parents to teach financial matters to their children. ANOVA further showed that there was a significant relationship between *Parental gender* and *Parental financial teaching*, with  $F = 2.742$  and  $p = 0.045$ . Therefore, this sub-hypothesis was accepted.

Based on the results, not all the sub-hypotheses were accepted. Sub-hypotheses H5a and H5b were rejected, while H5c, H5d and H5e were accepted. Therefore, H5 — that there is a significant difference in parental financial socialisation according to parental gender — is accepted. Therefore, the other issue to consider, having found significant differences, was which parental gender is more likely to financially socialise their children. This was done by examining the mean scores. A comparison of the mean scores for *Male parent* and *Female parent* across all sub-hypotheses where significant differences were found showed that *Female parent* (3.45) scored higher than *Male parent* (3.01). This means that female parents are more likely than male parents to engage in parental financial socialisation of their children. Table 7.85 indicates the summary of the

hypothesis decisions for the relationship between parental gender and parental financial socialisation.

**Table 7.85: Summary of the hypothesis decisions: Parental gender and parental financial socialisation**

<b>Hypothesis</b>	<b>Results</b>
H5a: There is a significant difference in parental financial behaviour according to parental gender.	Rejected
H5b: There is a significant difference in parental financial monitoring according to parental gender.	Rejected
H5c: There is a significant difference in parental financial discussions according to parental gender.	Accepted
H5d: There is a significant difference in parental financial communication according to parental gender.	Accepted
H5e: There is a significant difference in parental financial teaching according to parental gender.	Accepted

Source: Author's own compilation

Only three hypotheses supporting this relationship were accepted. Thus, H5 was accepted.

**H6: There is a significant positive relationship between culture and parental financial socialisation.**

Correlations were done to test this hypothesis. Table 7.86 shows the correlations between *Culture* (CLT) and the components of *Parental financial socialisation*, namely *Parental financial behaviour* (PFB), *Parental financial monitoring* (PFM), *Parental financial discussions* (PFD), *Parental financial communication* (PFC), and *Parental financial teaching* (PFT). All the factors had a *p*-value less than 0.05 ( $p < 0.05$ ) and were all significant.

**Table 7.86: Correlations between *Culture* and *Parental financial socialisation***

	CLT	PFB	PFM	PFD	PFC	PFT
CLT	1					
PFB	-.673**	1				
PFM	-.587**	.541**	1			
PFD	-.691**	.631**	.525**	1		
PFC	-.687**	.651**	.487**	.608**	1	
PFT	-.767**	.642**	.622**	.672**	.641**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS

The following sub-hypotheses were tested:

**H6a: There is a significant positive relationship between culture and parental financial behaviour.**

The Pearson’s r-value for *Culture* and *Parental financial behaviour* was -0.673. Thus, -45%  $(-0.673)^2$  of the variation in *Parental financial behaviour* was explained by *Culture*. This meant that, when *Culture* increased, *Parental financial behaviour* decreased. Thus, there is a large significant negative linear relationship between culture and parental financial behaviour. Therefore, this sub-hypothesis was rejected.

**H6b: There is a significant positive relationship between culture and parental financial monitoring.**

The Pearson’s r-value for *Culture* and *Parental financial monitoring* was -0.587. Therefore, -34%  $(-0.587)^2$  of the variation in *Parental financial monitoring* was explained by *Culture*. This meant that, when *Culture* increased, *Parental financial monitoring* decreased. Thus, there is a large significant negative linear relationship between culture and parental financial monitoring. Therefore, this sub-hypothesis was rejected.

**H6c: There is a significant positive relationship between culture and parental financial discussions.**

Pearson’s r-value for *Culture* and *Parental financial discussions* was -0.691. Thus, -48%  $(-0.691)^2$  of the variation in *Parental financial discussions* was explained by *Culture*. This

meant that, when *Culture* increased, *Parental financial discussions* decreased. Thus, there is a large significant negative linear relationship between *Culture* and *Parental financial discussions*. Therefore, the sub-hypothesis was rejected.

**H6d: There is a significant positive relationship between culture and parental financial communication.**

Pearson’s r-value for *Culture* and *Parental financial communication* was -0.687. Thus, -47%  $(-0.687)^2$  of the variation in *Parental financial communication* was explained by *Culture*. This meant that, when *Culture* increased, *parental financial communication* decreased. Thus, there is a large significant negative linear relationship between culture and parental financial *communication*. Therefore, this sub-hypothesis was rejected.

**H6e: There is a significant positive relationship between culture and parental financial teaching.**

Pearson’s r-value for *Culture* and *Parental financial teaching* was -0.767. Thus, -59%  $(-0.767)^2$  of the variation in *Parental financial teaching* was explained by *Culture*. This meant that, when *Culture* increased, *Parental financial teaching* decreased. Thus, there is a large significant negative linear relationship between culture and parental financial teaching. Therefore, this sub-hypothesis was rejected.

Table 7.87 indicates the summary of the hypothesis decisions for *Culture* and *Parental financial socialisation*.

**Table 7.87: Summary of the hypothesis decisions: Culture and parental financial socialisation**

Hypothesis	Results
H6a: There is a significant positive relationship between culture and parental financial behaviour.	Rejected
H6b: There is a significant positive relationship between culture and parental financial monitoring.	Rejected
H6c: There is a significant positive relationship between culture and parental financial discussions.	Rejected
H6d: There is a significant positive relationship between culture and parental financial communication.	Rejected
H6e: There is a significant positive relationship between culture and parental financial teaching.	Rejected

Source: Author’s own compilation

All five sub-hypotheses were rejected, as they did not support H6 — that there is a significant positive relationship between culture and parental financial socialisation. Thus, this hypothesis was rejected.

**H7: There is a significant positive relationship between parenting style (authoritarian, permissive, neglectful, and authoritative) and parental financial socialisation.**

Correlations were used to test this hypothesis. Table 7.88 shows the correlations between *Parenting style*, namely *Authoritarian* (AUTR), *Neglectful* (NE), *Authoritative* (AUTV), and *Permissive* (PER), and the components of *Parental financial socialisation*, namely *Parental financial behaviour* (PFB), *Parental financial monitoring* (PFM), *Parental financial discussions* (PFD), *Parental financial communication* (PFC), and *Parental financial teaching* (PFT). All the factors had a *p*-value of less than 0.05, and all were significant.

**Table 7.88: Correlations between *Parenting style* and *Parental financial socialisation***

	PFB	PFM	PFD	PFC	PFT	AUTR	NE	AUTV	PER
PFB	1								
PFM	.541**	1							
PFD	.631**	.525**	1						
PFC	.651**	.487**	.608**	1					
PFT	.642**	.622**	.672**	.641**	1				
AUTR	.650**	.554**	.642**	.623**	.733**	1			
NE	.280**	.300**	.283**	.288**	.377**	.349**	1		
AUTV	.606**	.556**	.668**	.588**	.697**	.673**	.357**	1	
PER	.544**	.564**	.599**	.590**	.640**	.701**	.499**	.677**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS

The following sub-hypotheses with their sub-sub-hypotheses were tested:

***Authoritarian style:***

**H7a: There is a significant positive relationship between an authoritarian parenting style and parental financial socialisation.**

**H7a (i): There is a significant positive relationship between an authoritarian parenting style and parental financial behaviour.**

Pearson's r-value for *Authoritarian style* and *Parental financial behaviour* was 0.650. Thus, 42%  $(0.650)^2$  of the variation in *Parental financial behaviour* was explained by *Authoritarian style*. This meant that when *Authoritarian style* increased, *Parental financial behaviour* also increased. Thus, there is a large significant positive linear relationship between an authoritarian parenting style and parental financial behaviour. Therefore, this sub-sub-hypothesis was accepted.

**H7a(ii): There is a significant positive relationship between an authoritarian parenting style and parental financial monitoring.**

Pearson's r-value for *Authoritarian style* and *Parental financial monitoring* was 0.554. Thus, 31%  $(0.554)^2$  of the variation in *Parental financial monitoring* was explained by *Authoritarian style*. This meant that, when *Authoritarian style* increased, *Parental financial monitoring* also increased. Thus, there is a large significant positive linear relationship between an authoritarian parenting style and parental financial monitoring. Therefore, this sub-sub-hypothesis was accepted.

**H7a(iii): There is a significant positive relationship between an authoritarian parenting style and parental financial discussions.**

Pearson's r-value for *Authoritarian style* and *Parental financial discussions* was 0.642. Therefore, 41%  $(0.642)^2$  of the variation in *Parental financial discussions* was explained by *Authoritarian style*. This meant that an increase in *Authoritarian style* led to an increase in *Parental financial discussions*. Thus, there is a large significant positive linear relationship between an authoritarian parenting style and parental financial discussions. Therefore, this sub-sub-hypothesis was accepted.

**H7a(iv): There is a significant positive relationship between an authoritarian parenting style and parental financial communication.**

Pearson's r-value for *Authoritarian style* and *Parental financial communication* was 0.623. Thus, 39%  $(0.623)^2$  of the variation in *Parental financial communication* was explained by *Authoritarian style*. This meant that, when *Authoritarian style* increased, *Parental financial communication* also increased. This means there is a large significant positive linear relationship between an authoritarian parenting style and parental financial communication. Therefore, this sub-sub-hypothesis was accepted.

**H7a(v): There is a significant positive relationship between an authoritarian parenting style and parental financial teaching.**

Pearson's r-value for *Authoritarian style* and *Parental financial teaching* was 0.733. Therefore, 54%  $(0.733)^2$  of the variation in *Parental financial teaching* was explained by *Authoritarian style*. This meant that, when *Authoritarian style* increased, *Parental financial teaching* also increased. Therefore, there is a large significant positive linear relationship between an authoritarian parenting style and parental financial teaching. Therefore, this sub-sub-hypothesis was accepted.

***Neglectful style:***

**H7b: There is a significant positive relationship between a neglectful parenting style and parental financial socialisation.**

**H7b(i): There is a significant positive relationship between a neglectful parenting style and parental financial behaviour.**

Pearson's r-value for *Neglectful style* and *Parental financial behaviour* was 0.280. Thus, 8%  $(0.280)^2$  of the variation in *Parental financial behaviour* was explained by *Neglectful style*. This meant that, when *Neglectful style* increased, *Parental financial behaviour* also increased. Thus, there is a small significant positive linear relationship between a neglectful parenting style and parental financial behaviour. Thus, this sub-sub-hypothesis was accepted.

**H7b(ii): There is a significant positive relationship between a neglectful parenting style and parental financial monitoring.**

Pearson's r-value for *Neglectful style* and *Parental financial monitoring* was 0.300. Therefore, 9%  $(0.300)^2$  of the variation in *Parental financial monitoring* was explained by *Neglectful style*. This meant that, when *Neglectful style* increased, *Parental financial monitoring* also increased. Thus, there is a medium significant positive linear relationship between a neglectful parenting style and parental financial monitoring. Therefore, this sub-sub-hypothesis was accepted.

**H7b(iii): There is a significant positive relationship between a neglectful parenting style and parental financial discussions.**

Pearson's r-value for *Neglectful style* and *Parental financial discussions* was 0.283. Therefore, 8%  $(0.283)^2$  of the variation in *Parental financial discussions* was explained by *Neglectful style*. This meant that, when *Neglectful style* increased, *Parental financial discussions* also increased. Thus, there is a small significant positive linear relationship between a neglectful parenting style and parental financial discussions. Therefore, this sub-sub-hypothesis was accepted.

**H7b(iv): There is a significant positive relationship between a neglectful parenting style and parental financial communication.**

Pearson's r-value between *Neglectful style* and *Parental financial communication* was 0.288. Thus, 8%  $(0.288)^2$  of the variation in *Parental financial communication* was explained by *Neglectful style*. This meant that, when *Neglectful style* increased, *Parental financial communication* also increased. Therefore, there is a small significant positive linear relationship between a neglectful parenting style and parental financial communication. Despite the small significant positive relation, the sub-sub-hypothesis was accepted.

**H7b(v): There is a significant positive relationship between a neglectful parenting style and parental financial teaching.**

Pearson's r-value for *Neglectful style* and *Parental financial teaching* was 0.377. Thus, 14%  $(0.377)^2$  of the variation in *Parental financial teaching* was explained by *Neglectful style*. This meant that, when *Neglectful style* increased, *Parental financial teaching* also increased. Thus, there is a medium significant positive linear relationship between a neglectful parenting style and parental financial teaching. Thus, this sub-sub-hypothesis was accepted.

***Authoritative style:***

**H7c: There is a significant positive relationship between an authoritative parenting style and parental financial socialisation.**

**H7c(i): There is a significant positive relationship between an authoritative parenting style and parental financial behaviour.**

Pearson's r-value for *Authoritative style* and *Parental financial behaviour* was 0.606. Therefore, 37%  $(0.606)^2$  of the variation in *Parental financial behaviour* was explained by *Authoritative style*. This meant that, when *Authoritative style* increased, *Parental financial behaviour* also increased. Thus, there is a large significant positive linear relationship between an authoritative parenting style and parental financial behaviour. Therefore, this sub-sub-hypothesis was accepted.

**H7c(ii): There is a significant positive relationship between an authoritative parenting style and parental financial monitoring.**

Pearson's r-value for *Authoritative style* and *Parental financial monitoring* was 0.556. Thus, 31%  $(0.556)^2$  of the variation in *Parental financial monitoring* was explained by *Authoritative style*. This meant that, when *Authoritative style* increased, *Parental financial monitoring* also increased. Therefore, there is a large significant positive linear relationship between an authoritative parenting style and parental financial monitoring. Thus, this sub-sub-hypothesis was accepted.

**H7c(iii): There is a significant positive relationship between an authoritative parenting style and parental financial discussions.**

Pearson's r-value for *Authoritative style* and *Parental financial discussions* was 0.668. Thus, 45%  $(0.668)^2$  of the variation in *Parental financial discussions* was explained by *Authoritative style*. This meant that, when *Authoritative style* increased, *Parental financial discussions* also increased. Thus, there is a large significant positive linear relationship between an authoritative parenting style and parental financial discussions. Thus, this sub-sub-hypothesis was accepted.

**H7c(iv): There is a significant positive relationship between an authoritative parenting style and parental financial communication.**

Pearson's r-value for *Authoritative style* and *Parental financial communication* was 0.588. Thus, 34%  $(0.588)^2$  of the variation in *Parental financial communication* was explained by *Authoritative style*. This meant that, *Authoritative style* increased, *Parental financial communication* also increased. Therefore, there is a large significant positive linear relationship between an authoritative parenting style and parental financial communication. Therefore, this sub-sub-hypothesis was accepted.

**H7c(v): There is a significant positive relationship between an authoritative parenting style and parental financial teaching.**

Pearson's r-value for *Authoritative style* and *Parental financial teaching* was 0.697. Therefore, 48%  $(0.697)^2$  of the variation in *Parental financial teaching* was explained by *Authoritative style*. This meant that, when *Authoritative style* increased, *Parental financial teaching* also increased. Therefore, there is a large significant positive linear relationship between an authoritative parenting style and parental financial teaching. Therefore, this sub-sub-hypothesis was accepted.

***Permissive style:***

**H7d: There is a significant positive relationship between a permissive parenting style and parental financial socialisation.**

**H7d(i): There is a significant positive relationship between a permissive parenting style and parental financial behaviour.**

Pearson's r-value for *Permissive style* and *Parental financial behaviour* was 0.544. Therefore, 29%  $(0.544)^2$  of the variation in *Parental financial behaviour* was explained by *Permissive style*. This meant that, when *Permissive style* increased, *Parental financial behaviour* also increased. Thus, there is a large significant positive linear relationship between a permissive parenting style and parental financial behaviour. Therefore, this sub-sub-hypothesis was accepted.

**H7d(ii): There is a significant positive relationship between a permissive parenting style and parental financial monitoring.**

Pearson's r-value for *Permissive style* and *Parental financial monitoring* was 0.564. Therefore, 32%  $(0.564)^2$  of the variation in *Parental financial monitoring* was explained by *Permissive style*. This meant that, when *Permissive style* increased, *Parental financial monitoring* also increased. Thus, there is a large significant positive linear relationship between a permissive parenting style and parental financial monitoring. Therefore, this sub-sub-hypothesis was accepted.

**H7d(iii): There is a significant positive relationship between a permissive parenting style and parental financial discussions.**

Pearson's r-value for *Permissive style* and *Parental financial discussions* was 0.599. Therefore, 36%  $(0.599)^2$  of the variation in *Parental financial discussions* was explained by *Permissive style*. This meant that, when *Permissive style* increased, *Parental financial discussions* also increased. Thus, there is a large significant positive linear relationship between a permissive parenting style and parental financial discussions. Therefore, this sub-sub-hypothesis was accepted.

**H7d(iv): There is a significant positive relationship between a permissive parenting style and parental financial communication.**

Pearson's r-value for *Permissive style* and *Parental financial communication* was 0.590. Therefore, 35%  $(0.590)^2$  of the variation in *Parental financial communication* was explained by *Permissive style*. This meant that, when *Permissive style* increased, *Parental financial communication* also increased. Thus, there is a large significant positive linear relationship between a permissive parenting style and parental financial communication. Therefore, this sub-sub-hypothesis was accepted.

**H7d(v): There is a significant positive relationship between a permissive parenting style and parental financial teaching.**

Pearson's r-value for *Permissive style* and *Parental financial teaching* was 0.640. Therefore, 41%  $(0.640)^2$  of the variation in *Parental financial teaching* was explained by *Permissive style*. This meant that, when *Permissive style* increased, *Parental financial teaching* also increased. Thus, there is a large significant positive linear relationship between a permissive parenting style and parental financial teaching. Therefore, the sub-sub-hypothesis was accepted.

Based on the results, all sub-sub-hypotheses mentioned above were accepted. Table 7.89 indicates the summary of the decisions regarding the hypothesis related to parenting styles and parental financial socialisation.

**Table 7.89: Summary of the hypothesis decisions for parenting styles and parental financial socialisation**

<b>Hypothesis</b>	<b>Results</b>
H7a: There is a significant positive relationship between an authoritarian parenting style and parental financial socialisation	Accepted
H7b: There is a significant positive relationship between a neglectful parenting style and parental financial socialisation	Accepted
H7c: There is a significant positive relationship between an authoritative parenting style and parental financial socialisation	Accepted
H7d: There is a significant positive relationship between a permissive parenting style and parental financial socialisation	Accepted

Source: Author's own compilation

As shown in Table 7.89 all four sub-hypotheses H7a, H7b, H7c and H7d, supporting H7 — that there is a significant positive relationship between parenting style and parental financial socialisation —were accepted. Thus, H7 was accepted.

**H8: There is a significant positive relationship between parental financial socialisation and financial literacy.**

To test H8, sub-hypotheses H8a, H8b, H8c, and H8d and their corresponding sub-sub-hypotheses, which focused on parental financial socialisation and financial literacy, were tested. Multiple regression analysis was used to test these hypotheses. Multiple regression analysis is used when more than one independent variable influences a single dependent variable (Pallant, 2016). In the present study, multiple regression was used to test the relationship between the *Parental financial socialisation* variables (independent variables), i.e., *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*, and the *Financial literacy* variables (dependent variables), namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. The results are reported below.

**H8a: There is a significant positive relationship between parental financial socialisation and financial knowledge.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H8a(i): There is a significant positive relationship between parental financial behaviour and financial knowledge.**

**H8a(ii): There is a significant positive relationship between parental financial monitoring and financial knowledge.**

**H8a(iii): There is a significant positive relationship between parental financial discussions and financial knowledge.**

**H8a(iv): There is a significant positive relationship between parental financial communication and financial knowledge.**

**H8a(v): There is a significant positive relationship between parental financial teaching and financial knowledge.**

Table 7.90 presents the results of the multiple regression analysis of the relationship between *Parental financial socialisation* and the *Financial literacy* variable *Financial knowledge*.

**Table 7.90: Multiple regression analysis: *Parental financial socialisation* and *Financial knowledge***

Dependent variable: <i>Financial knowledge</i>					
Independent variable	Standardised coefficient beta ( $\beta$ )	T	Sig.	Collinearity Statistics	
				Tolerance	VIF
<i>Parental financial behaviour</i>	0.169	3.861	0.000	0.419	2.389
<i>Parental financial monitoring</i>	0.047	1.200	0.231	0.526	1.901
<i>Parental financial discussions</i>	0.125	2.814	0.005	0.403	2.481
<i>Parental financial communication</i>	0.098	2.271	0.024	0.431	2.320
<i>Parental financial teaching</i>	0.123	2.402	0.017	0.305	3.278
<b><math>R^2 = 0.637</math></b>					
<b>F = 56.932; Sig. = 0.000</b>					

Source: SPSS

The  $R^2$ -value = 0.637 explained 64% of the variance in the model. The significance of the  $R^2$ -value was tested through the F-ratio, which was equal to 56.932, and thus significant, with a  $p$ -value of 0.000. The results of the variance inflation factor (VIF) analyses indicated that none of the VIF values of the variables exceeded the generally accepted threshold value of 10 (Pallant, 2016). This indicated that no multicollinearity issues existed. The results indicated that *Parental financial behaviour* ( $\beta = 0.169$ ;  $p = 0.000$ ), *Parental financial discussions* ( $\beta = 0.047$ ;  $p = 0.005$ ), *Parental financial communication* ( $\beta = 0.098$ ;  $p = 0.024$ ), and *Parental financial teaching* ( $\beta = 0.123$ ;  $p = 0.017$ ) had a significant positive relationship with *Financial knowledge*. The results further indicated that *Parental financial monitoring* ( $\beta = 0.047$ ;  $p = 0.231$ ) did not have a significant relationship with *Financial knowledge*. Thus, young black African adults who observe parental financial

behaviour and received parental financial discussions and parental financial communication in childhood are likely to have more financial knowledge in adulthood.

Based on the results, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H8a(ii) was rejected, while H8a(i), H8a(iii), H8a(iv), and H8a(v) were accepted. Therefore, sub-hypothesis (H8a) — that there is a significant positive relationship between parental financial socialisation and financial knowledge — was accepted.

**H8b: There is a significant positive relationship between parental financial socialisation and financial behaviour.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H8b(i): There is a significant positive relationship between parental financial behaviour and financial behaviour.**

**H8b(ii): There is a significant positive relationship between parental financial monitoring and financial behaviour.**

**H8b(iii): There is a significant positive relationship between parental financial discussions and financial behaviour.**

**H8b(iv): There is a significant positive relationship between parental financial communication and financial behaviour.**

**H8b(v): There is a significant positive relationship between parental financial teaching and financial behaviour.**

Table 7.91 presents the results of the multiple regression analysis for *Parental financial socialisation* and the *Financial literacy* variable *Financial behaviour*.

**Table 7.91: Multiple regression analysis: *Parental financial socialisation and Financial behaviour***

Dependent variable: <i>Financial behaviour</i>					
Independent variable	Standardised coefficient beta ( $\beta$ )	T	Sig.	Collinearity Statistics	
				Tolerance	VIF
<i>Parental financial behaviour</i>	0.178	4.717	0.000	0.418	2.395
<i>Parental financial monitoring</i>	0.078	2.352	0.019	0.537	1.861
<i>Parental financial discussions</i>	0.102	2.640	0.009	0.393	2.542
<i>Parental financial communication</i>	0.172	4.603	0.000	0.426	2.348
<i>Parental financial teaching</i>	0.036	0.810	0.418	0.306	3.268
<b><math>R^2 = 0.735</math></b>					
<b><math>F = 88.763</math>; <math>Sig. = 0.000</math></b>					

Source: SPSS

Table 7.91 shows that the  $R^2$ -value = 0.735, which explained 73% of the variance of the model. The significance of the  $R^2$ -value was tested through the F-ratio, which was equal to 88.763, which was significant, with a  $p$ -value of 0.000. The results of the VIF analyses indicated that none of the VIF values of the variables exceeded the threshold of the generally accepted value of 10 (Pallant, 2016). This indicated that no multicollinearity issues existed. The results indicated that *Parental financial behaviour* ( $\beta = 0.178$ ;  $p = 0.000$ ), *Parental financial monitoring* ( $\beta = 0.078$ ;  $p = 0.019$ ), *Parental financial discussions* ( $\beta = 0.102$ ;  $p = 0.009$ ), and *Parental financial communication* ( $\beta = 0.172$ ;  $p = 0.000$ ) had a significant positive relationship with *Financial behaviour*. The results further indicated that *Parental financial teaching* ( $\beta = 0.036$ ;  $p = 0.418$ ) did not have a significant relationship with *Financial behaviour*. This suggests that young black African adults who observe parental financial behaviour and receive parental financial monitoring, parental financial discussions, and parental financial communication in childhood are more likely to demonstrate good financial behaviour in adulthood.

Based on the results, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H8b(v) was rejected, while H8b(i), H8b(ii), H8b(iii), and H8b(iv) were accepted. Therefore, sub-hypothesis (H8b) — that there is a significant positive relationship between parental financial socialisation and financial behaviour — was accepted.

**H8c: There is a significant positive relationship between parental financial socialisation and financial attitude.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H8c(i): There is a significant positive relationship between parental financial behaviour and financial attitude.**

**H8c(ii): There is a significant positive relationship between parental financial monitoring and financial attitude.**

**H8c(iii): There is a significant positive relationship between parental financial discussions and financial attitude.**

**H8c(iv): There is a significant positive relationship between parental financial communication and financial attitude.**

**H8c(v): There is a significant positive relationship between parental financial teaching and financial attitude.**

Table 7.92 presents the results of the multiple regression analysis for *Parental financial socialisation* and *Financial literacy* variable *Financial attitude*.

**Table 7.92: Multiple regression analysis: *Parental financial socialisation* and *Financial attitude***

Dependent variable: <i>Financial attitude</i>					
Independent variable	Standardised coefficient beta ( $\beta$ )	T	Sig.	Collinearity statistics	
				Tolerance	VIF
<i>Parental financial behaviour</i>	0.023	0.457	0.648	0.413	2.418
<i>Parental financial monitoring</i>	0.077	1.736	0.083	0.536	1.867
<i>Parental financial discussions</i>	0.112	0.244	0.037	0.402	2.486
<i>Parental financial communication</i>	0.113	2.290	0.022	0.430	2.323
<i>Parental financial teaching</i>	0.173	2.963	0.003	0.306	3.263
<b><math>R^2 = 0.523</math></b>					
<b>F = 35.543; Sig. = 0.000</b>					

Source: SPSS

Table 7.92 showed that the  $R^2$ -value = 0.523, which explained 52% of the variance of the model. The significance of the  $R^2$ -value was tested through the F-ratio, which was 35.543, which was significant, with a  $p$ -value of 0.000. The results of the VIF analyses indicated that none of the VIF values exceeded the threshold of the generally accepted value of 10 (Pallant, 2016). This indicated that no multicollinearity issues existed. The results indicated that *Parental financial discussions* ( $\beta = 0.112$ ;  $p = 0.037$ ), *Parental financial communication* ( $\beta = 0.113$ ;  $p = 0.022$ ), and *Parental financial teaching* ( $\beta = 0.173$ ;  $p = 0.003$ ) had a significant positive relationship with *Financial attitude*. The results further indicated that *Parental financial behaviour* ( $\beta = 0.023$ ;  $p = 0.648$ ), and *Parental financial monitoring* ( $\beta = 0.077$ ;  $p = 0.083$ ) had no significant relationship with *Financial attitude*. This means that young black African adults who receive parental financial communication and parental financial teaching in childhood are more likely to demonstrate a good financial attitude in adulthood.

Based on the results, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypotheses H8c(i), and H8c(ii) were rejected, while H8c(iii), H8c(iv), and H8c(v) were accepted. Therefore, sub-hypothesis (H8c) — that there is a significant positive relationship between parental financial socialisation and financial attitude — is accepted.

**H8d: There is a significant positive relationship between parental financial socialisation and financial decision-making.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H8d(i): There is a significant positive relationship between parental financial behaviour and financial decision-making.**

**H8d(ii): There is a significant positive relationship between parental financial monitoring and financial decision-making.**

**H8d(iii): There is a significant positive relationship between parental financial discussions and financial decision-making.**

**H8d(iv): There is a significant positive relationship between parental financial communication and financial decision-making.**

**H8d(v): There is a significant positive relationship between parental financial teaching and financial decision-making.**

Table 7.93 presents the results of the multiple regression analysis for *Parental financial socialisation* and the *Financial literacy* variable *Financial decision-making*.

**Table 7.93: Multiple regression analysis for *Parental financial socialisation* and *Financial decision-making***

Dependent variable: <i>Financial decision-making</i>					
Independent variable	Standardised coefficient beta ( $\beta$ )	T	Sig.	Collinearity statistics	
				Tolerance	VIF
<i>Parental financial behaviour</i>	0.068	1.098	0.273	0.415	2.408
<i>Parental financial monitoring</i>	-0.026	0.481	0.031	0.533	1.878
<i>Parental financial discussions</i>	-0.144	2.244	0.025	0.387	2.584
<i>Parental financial communication</i>	0.137	2.216	0.027	0.418	2.394
<i>Parental financial teaching</i>	0.040	0.551	0.582	0.301	3.320
<b><math>R^2 = 0.287</math></b>					
<b>F = 12.894; Sig. = 0.000</b>					

Source: SPSS

Table 7.93 showed that the  $R^2$ -value = 0.287, which explained 29% of the variance of the model. The significance of the  $R^2$ -value was tested through the F-ratio, which was equal to 12.894, which was significant, with a  $p$ -value of 0.000. The results of the VIF analyses indicated that none of the VIF values exceeded the threshold of the generally accepted value of 10 (Pallant, 2016). This indicated that no multicollinearity issues existed. The results indicated that *Parental financial communication* ( $\beta = 0.137$ ;  $p = 0.027$ ) had a significant positive relationship with *Financial decision-making*. This means that children who received parental financial communication are more likely to make sound financial decisions in adulthood. However, *Parental financial monitoring* ( $\beta = -0.026$ ;  $p = 0.031$ ) and *Parental financial discussions* ( $\beta = -0.144$ ;  $p = 0.025$ ) had a significant negative

relationship with *Financial decision-making*. This suggests that young black African adults who are exposed to parental financial monitoring and parental financial discussions in childhood are likely to display poor financial decision-making in adulthood. The results further indicated that *Parental financial behaviour* ( $\beta = 0.068$ ;  $p = 0.273$ ), and *Parental financial teaching* ( $\beta = 0.040$ ;  $p = 0.582$ ) had no significant relationship with *Financial decision-making*.

Therefore, based on the results, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypotheses H8d(i), H8d(ii), H8d(iii), and H8d(v) were rejected, while H8d(iv) was accepted. Thus, sub-hypothesis (H8d) — that there is a significant positive relationship between parental financial socialisation and financial decision-making — was rejected.

Table 7.94 provides a summary of the hypothesis decisions for parental financial socialisation and financial literacy.

**Table 7.94: Summary of the hypothesis decisions: Parental financial socialisation and financial literacy**

Hypothesis	Results
H8a: There is a significant positive relationship between parental financial socialisation and financial knowledge.	Accepted
H8b: There is a significant positive relationship between parental financial socialisation and financial behaviour.	Accepted
H8c: There is a significant positive relationship between parental financial socialisation and financial attitude.	Accepted
H8d: There is a significant positive relationship between parental financial socialisation and financial decision-making.	Rejected

Source: Author's own compilation

Table 7.94 shows the decisions of the summary of hypotheses for parental financial socialisation and financial literacy. One sub-hypothesis H8d was rejected, and three H8a, H8b, and H8c were accepted. Thus, H8 — that there is a significant positive relationship between parental financial socialisation and financial literacy — was accepted.

**H9: The relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).**

To test H9, sub-hypotheses H9a, H9b, H9c, H9d, and H9e, focusing on parental financial socialisation, financial literacy, and social structural factors (parental SES) were tested. The results are discussed in this section. Moderated regression analysis was used to test whether the relationship of *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making* is moderated by *Parental SES (Parental income)*.

**H9a: The relationship between parental financial behaviour and financial literacy is moderated by parental SES (income).**

To achieve this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H9a(i): The relationship between parental financial behaviour and financial knowledge is moderated by parental income.**

**H9a(ii): The relationship between parental financial behaviour and financial behaviour is moderated by parental income.**

**H9a(iii): The relationship between parental financial behaviour and financial attitude is moderated by parental income.**

**H9a(iv): There relationship between parental financial behaviour and financial decision-making is moderated by parental income.**

Table 7.95 indicates the results of the moderated regression analyses of the effects of *Parental financial behaviour* and *Parental income* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

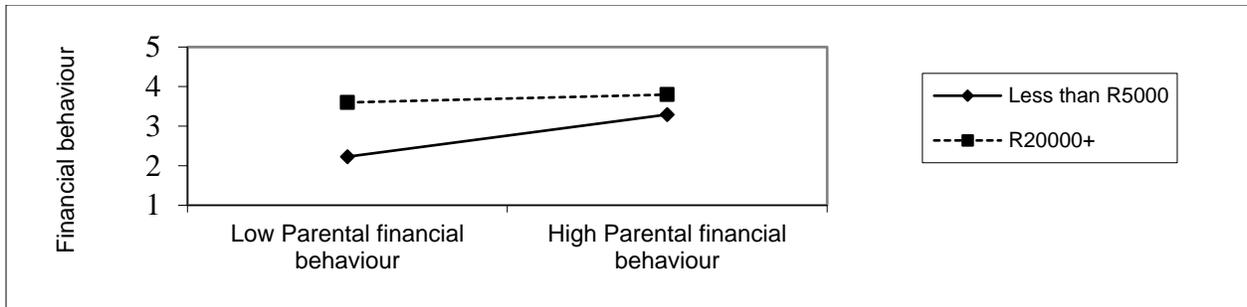
**Table 7.95: Moderated regression analysis: Effects of *Parental financial behaviour* and *Parental income* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial behaviour</i>	0.411*	0.533*	0.415*	0.179*
<i>Parental income level</i>	-0.208	0.938*	1.007*	0.608*
<i>Parental financial behaviour</i> x <i>Parental income level</i>	-0.158	-0.434*	-0.394*	-0.223*
R	0.734*	0.767*	0.610*	0.433*
$R^2$	0.538*	0.588*	0.372*	0.187*
F	141.97*	91.27*	42.74*	14.42*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

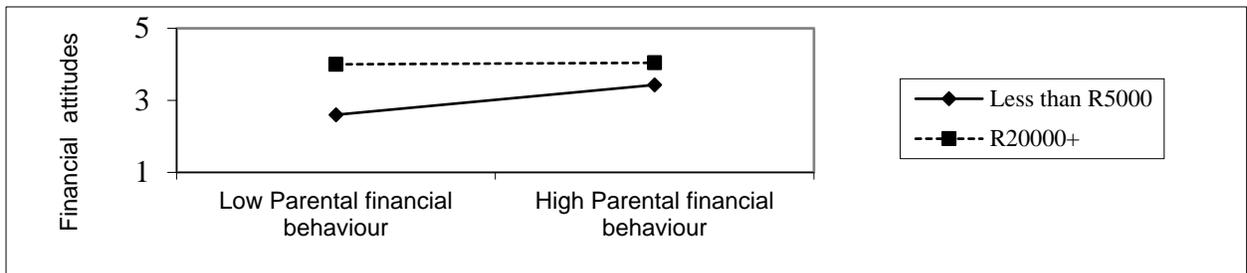
Table 7.95 reports the results of the moderated regression analysis, with standardised regression beta ( $\beta$ ) weights significant at  $p \leq 0.05^*$ . In terms of the main effects, *Parental financial behaviour* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.411$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.533$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.415$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.179$ ;  $p \leq 0.05$ ). *Parental income* acted as a predictor of *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. However, *Parental income* did not act as a predictor of *Financial knowledge*. In terms of the interaction effects, *Parental income* significantly moderated the relationship between *Parental financial behaviour* and *Financial behaviour* ( $\beta = -0.434$ ;  $p \leq 0.05$ ;  $R^2 = 0.588$ ;  $F = 91.27$ ), *Financial attitude* ( $\beta = -0.394$ ;  $p \leq 0.05$ ;  $R^2 = 0.372$ ;  $F = 42.74$ ), and *Financial decision-making* ( $\beta = -0.223$ ;  $p \leq 0.05$ ;  $R^2 = 0.187$ ;  $F = 14.42$ ). However, *Parental income* did not significantly moderate the relationship between *Parental financial behaviour* and *Financial knowledge* ( $\beta = -0.158$ ;  $p > 0.05$ ;  $R^2 = 0.538$ ;  $F = 141.97$ ). Furthermore, the interaction effect sizes on *Financial behaviour*, *Financial attitude*, and *Financial decision-making* were small.

The interactions were done through a simple slope test and by graphically depicting the value of the moderator at the mean and standard deviations above and below the mean. Figures 7.23, 7.24, and 7.25 indicate the interaction effects between *Parental income*, *Parental financial behaviour*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.



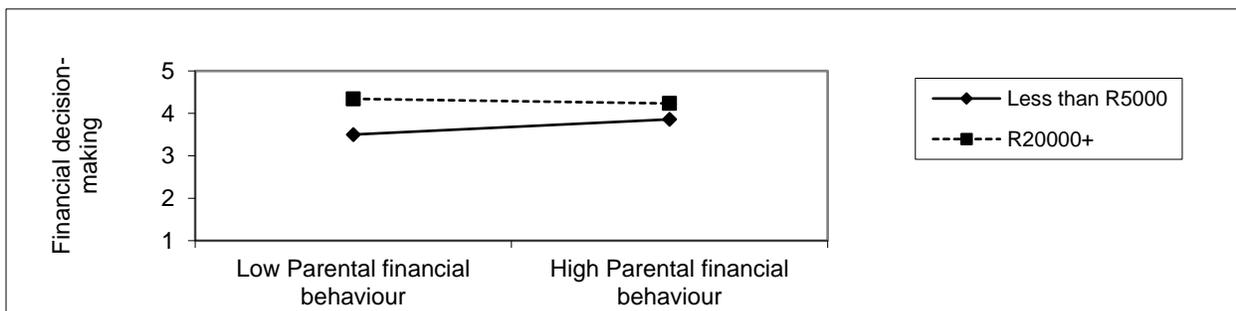
**Figure 7.23: Interaction effects between Parental income, Parental financial behaviour, and Financial behaviour**

Source: SPSS



**Figure 7.24: Interaction effects between Parental income, Parental financial behaviour, and Financial attitude**

Source: SPSS



**Figure 7.25: Interaction effects between Parental income, Parental financial behaviour, and Financial decision-making**

Source: SPSS

The relationships between *Parental financial behaviour* and *Financial behaviour* and between *Financial attitude* and *Financial decision-making* were stronger for those whose parents earned *R20 000+* than for those whose parents earned *Less than R5 000*.

Respondents whose parents earned R20 000+ and who scored higher on *Parental financial behaviour* achieved significantly higher scores on *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H9a(i) was rejected because *Parental income* did not moderate the relationship between *Parental financial behaviour* and *Financial knowledge*. Sub-sub-hypotheses H9a(ii), H9a(iii), and H9a(iv) were accepted because *Parental income* moderated the relationship between *Parental financial behaviour* and *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As three sub-sub-hypotheses were accepted and one rejected, sub-hypothesis (H9a) — that the relationship between parental financial behaviour and financial literacy is moderated by parental SES (income) — was accepted.

**H9b: The relationship between parental financial monitoring and financial literacy is moderated by parental SES (income).**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H9b(i): The relationship between parental financial monitoring and financial knowledge is moderated by parental income.**

**H9b(ii): The relationship between parental financial monitoring and financial behaviour is moderated by parental income.**

**H9b(iii): The relationship between parental financial monitoring and financial attitude is moderated by parental income.**

**H9b(iv): The relationship between parental financial monitoring and financial decision-making is moderated by parental income.**

Table 7.96 reports the results of the moderated regression analyses of the effects of *Parental financial monitoring* and *Parental income* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

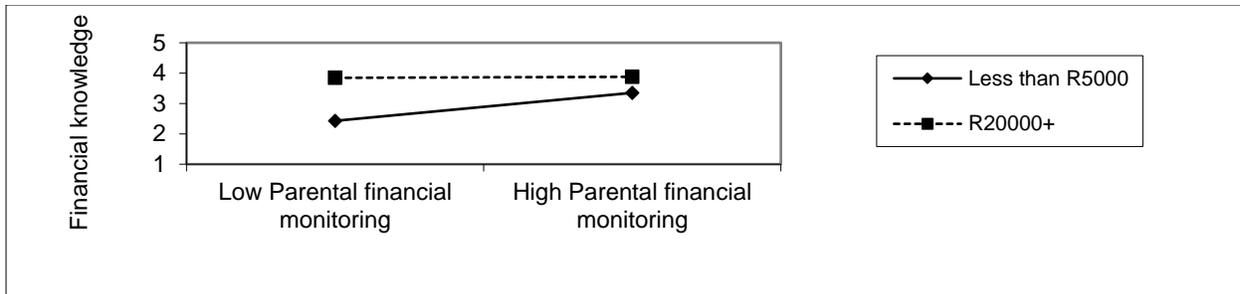
**Table 7.96: Moderated regression analysis: Effects of *Parental financial monitoring* and *Parental income* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial monitoring</i>	0.461*	0.440*	0.444*	0.088
<i>Parental income level</i>	0.972*	-0.440*	0.526*	0.841*
<i>Parental financial monitoring</i> x <i>Parental income level</i>	-0.444*	-0.352*	-0.246*	0.060
R	0.723*	0.737*	0.616*	0.419*
R <sup>2</sup>	0.523*	0.542*	0.379*	0.176*
F	82.87*	73.84*	38.99*	14.26*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

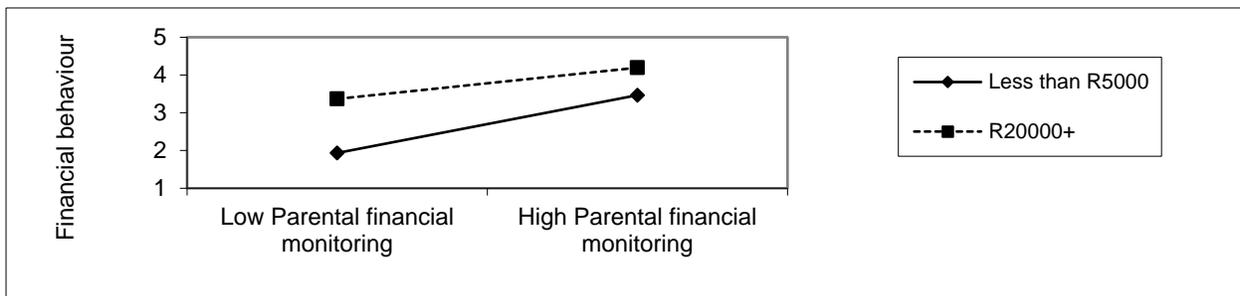
In terms of the main effects, *Parental financial monitoring* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.461$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.440$ ;  $p \leq 0.05$ ), and *Financial attitude* ( $\beta = 0.444$ ;  $p \leq 0.05$ ). However, *Parental financial monitoring* did not act as a significant predictor of *Financial decision-making* ( $\beta = 0.088$ ;  $p > 0.05$ ), while *Parental income level* acted as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. In terms of the interaction effects, *Parental income* significantly moderated the relationship of *Parental financial monitoring* with *Financial knowledge* ( $\beta = -0.444$ ;  $p \leq 0.05$ ;  $R^2 = 0.523$ ;  $F = 82.87$ ), *Financial behaviour* ( $\beta = -0.352$ ;  $p \leq 0.05$ ;  $R^2 = 0.542$ ;  $F = 73.84$ ), and *Financial attitude* ( $\beta = -0.256$ ;  $p \leq 0.05$ ;  $R^2 = 0.379$ ;  $F = 38.99$ ). However, *Parental income* did not significantly moderate the relationship between *Parental financial monitoring* and *Financial decision-making* ( $\beta = 0.060$ ;  $p > 0.05$ ;  $R^2 = 0.176$ ;  $F = 14.26$ ). Furthermore, the interaction effects on *Financial knowledge*, *Financial behaviour*, and *Financial attitude* had a small size.

The interactions were done through a simple slope test and by graphically depicting the value of the moderator at the mean and standard deviations above and below the mean. Figures 7.26, 7.27, and 7.28 indicate the interaction effects of *Parental income* and *Parental financial monitoring* with *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.



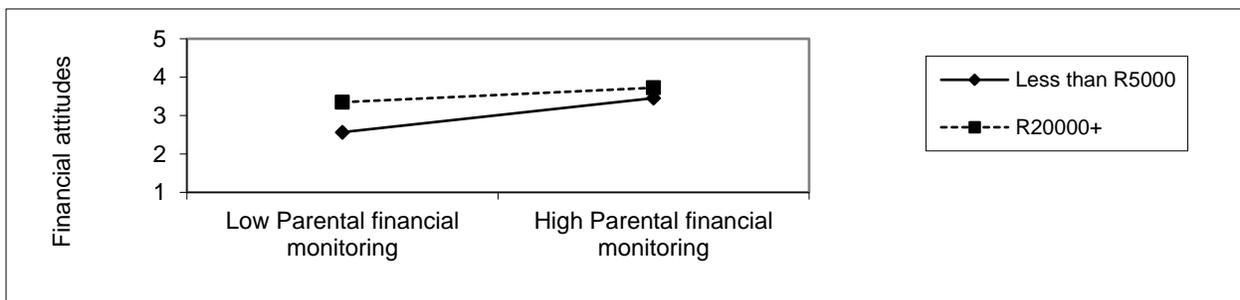
**Figure 7.26: Interaction effects between *Parental income*, *Parental financial monitoring*, and *Financial knowledge***

Source: SPSS



**Figure 7.27: Interaction effects between *Parental income*, *Parental financial monitoring*, and *Financial behaviour***

Source: SPSS



**Figure 7.28: Interaction effects between *Parental income*, *Parental financial monitoring*, and *Financial attitude***

Source: SPSS

As indicated in Figures 7.26, 7.27 and 7.28, the relationship between *Parental financial monitoring* and *Financial knowledge* and between *Financial behaviour* and *Financial attitude* were stronger for those whose parents earned *R20 000+* than for those whose

parents earned *Less than R5 000*. Respondents whose parents earned *R20 000+* and who scored higher on *Parental financial monitoring* achieved significantly higher scores on *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H9b(iv) was rejected, as *Parental income* did not moderate the relationship between *Parental financial monitoring* and *Financial decision-making*. Sub-sub-hypotheses H9b(i), H9b(ii), and H9b(iii) were accepted, as *Parental income* moderated the relationship of *Parental financial monitoring* with *Financial knowledge*, *Financial behaviour*, and *Financial attitude*. As three sub-sub-hypotheses were accepted and one was rejected, sub-hypothesis (H9b) — that the relationship between parental financial monitoring and financial literacy is moderated by parental SES (income) — was accepted.

**H9c: The relationship between parental financial discussions and financial literacy is moderated by parental SES (income).**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H9c(i): The relationship between parental financial discussions and financial knowledge is moderated by parental income.**

**H9c(ii): The relationship between parental financial discussions and financial behaviour is moderated by parental income.**

**H9c(iii): The relationship between parental financial discussions and financial attitude is moderated by parental income.**

**H9c(iv): The relationship between parental financial discussions and financial decision-making is moderated by parental income.**

Table 7.97 reports the results of the moderated regression analyses of the effects of *Parental financial discussions* and *Parental income* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

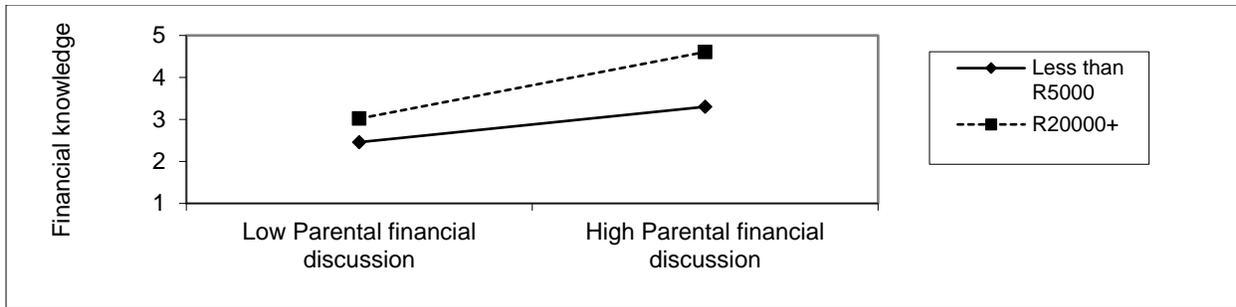
**Table 7.97: Moderated regression analysis: Effects of *Parental financial discussions* and *Parental income* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial discussions</i>	0.422*	0.500*	0.431*	0.061
<i>Parental income level</i>	0.934*	0.946*	0.906*	0.811*
<i>Parental financial discussions</i> x <i>Parental income level</i>	-0.371*	-0.362*	-0.318*	0.036
R	0.727*	0.757*	0.601*	0.425*
R <sup>2</sup>	0.528*	0.573*	0.362*	0.181*
F	87.34*	89.80*	38.17*	16.80*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

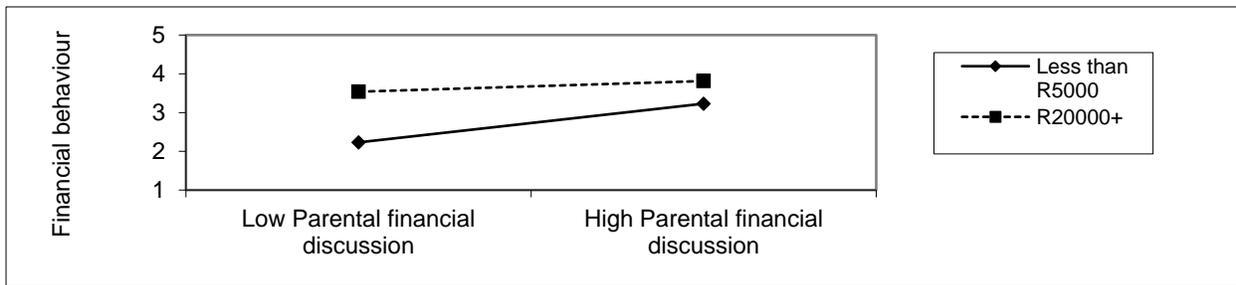
In terms of the main effects, *Parental financial discussions* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.422$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.500$ ;  $p \leq 0.05$ ), and *Financial attitude* ( $\beta = 0.431$ ;  $p \leq 0.05$ ). However, *Parental financial discussions* did not act as a significant predictor of *Financial decision-making* ( $\beta = 0.061$ ;  $p > 0.05$ ), while *Parental income* acted as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. In terms of the interaction effects, *Parental income* significantly moderated the relationship of *Parental financial discussions* with *Financial knowledge* ( $\beta = -0.371$ ;  $p \leq 0.05$ ;  $R^2 = 0.528$ ;  $F = 87.34$ ), *Financial behaviour* ( $\beta = -0.362$ ;  $p \leq 0.05$ ;  $R^2 = 0.573$ ;  $F = 89.80$ ), and *Financial attitude* ( $\beta = -0.318$ ;  $p \leq 0.05$ ;  $R^2 = 0.362$ ;  $F = 38.17$ ). However, *Parental income* did not significantly moderate the relationship between *Parental financial discussions* and *Financial decision-making* ( $\beta = 0.036$ ;  $p > 0.05$ ;  $R^2 = 0.181$ ;  $F = 16.80$ ). Furthermore, the interaction effects on *Financial knowledge*, *Financial behaviour*, and *Financial attitude* had a small size.

The interactions were done through a simple slope test and by graphically depicting the value of the moderator at the mean and standard deviations above and below the mean. Figures 7.29, 7.30, and 7.31 indicate the interaction effects between *Parental income*, *Parental financial discussions* and *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.



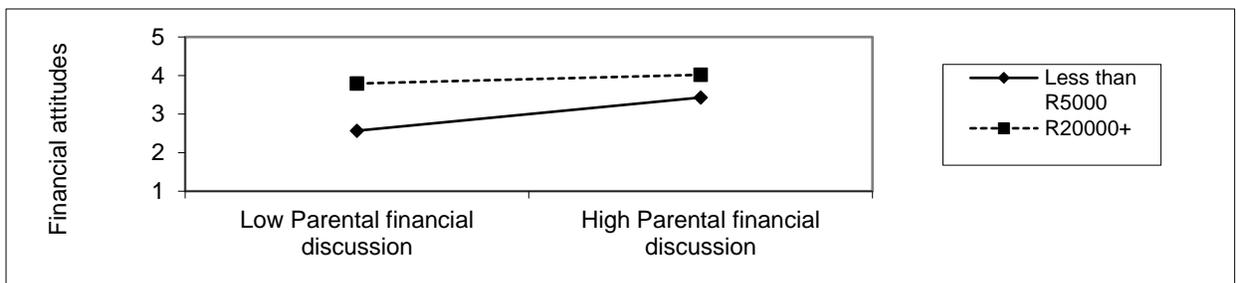
**Figure 7.29: Interaction effects between Parental income, Parental financial discussions, and Financial knowledge**

Source: SPSS



**Figure 7.30: Interaction effects between Parental income, Parental financial discussions, and Financial behaviour**

Source: SPSS



**Figure 7.31: Interaction effects between Parental income, Parental financial discussions, and Financial attitude**

Source: SPSS

As indicated in Figures 7.29, 7.30, and 7.31, the relationships of Parental financial discussions with Financial knowledge, Financial behaviour, and Financial attitude were stronger for those whose parents earned R20 000+ than for those whose parents earned

*Less than R5 000.* Respondents whose parents earned *R20 000+* and who scored higher on *Parental financial discussions* achieved significantly higher scores on *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H9c(iv) was rejected, as *Parental income* did not moderate the relationship between *Parental financial discussions* and *Financial decision-making*. Sub-sub-hypotheses H9c(i), H9c(ii), and H9c(iii) were accepted, as *Parental income* moderated the relationship of *Parental financial discussions* with *Financial knowledge*, *Financial behaviour*, and *Financial attitude*. As three sub-sub-hypotheses were accepted and one was rejected, sub-hypothesis (H9c) — that the relationship between parental financial discussions and financial literacy is moderated by parental SES (income) — was accepted.

**H9d: The relationship between parental financial communication and financial literacy is moderated by parental SES (income).**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H9d(i): The relationship between parental financial communication and financial knowledge is moderated by parental income.**

**H9d(ii): The relationship between parental financial communication and financial behaviour is moderated by parental income.**

**H9d(iii): The relationship between parental financial communication and financial attitude is moderated by parental income.**

**H9d(iv): The relationship between parental financial communication and financial decision-making is moderated by parental income.**

Table 7.98 indicates the results of the moderated regression analyses of the effects of *Parental financial communication* and *Parental income* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

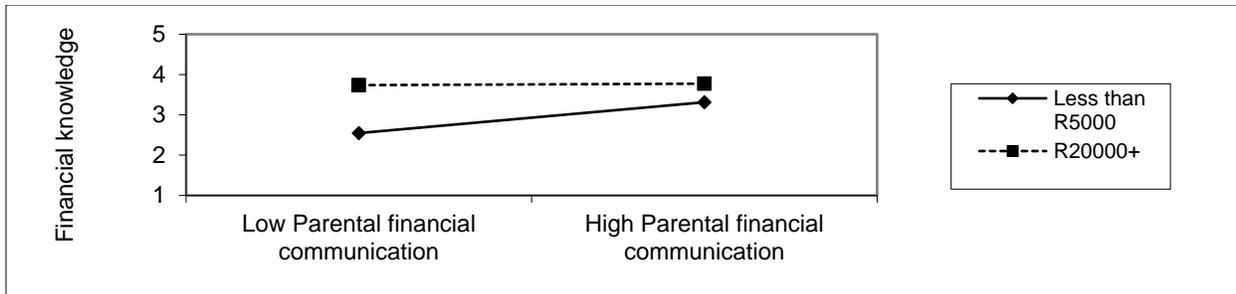
**Table 7.98: Moderated regression analysis: Effects of *Parental financial communication* and *Parental income* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial communication</i>	0.383*	0.523*	0.428*	0.275*
<i>Parental income level</i>	0.825*	-0.881*	0.911*	0.579*
<i>Parental financial communication x Parental income level</i>	-0.365*	-0.302*	-0.363*	0.269*
R	0.725*	0.763*	0.622*	0.470*
$R^2$	0.525*	0.582*	0.387*	0.221*
F	86.47*	79.62*	39.40*	17.33*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

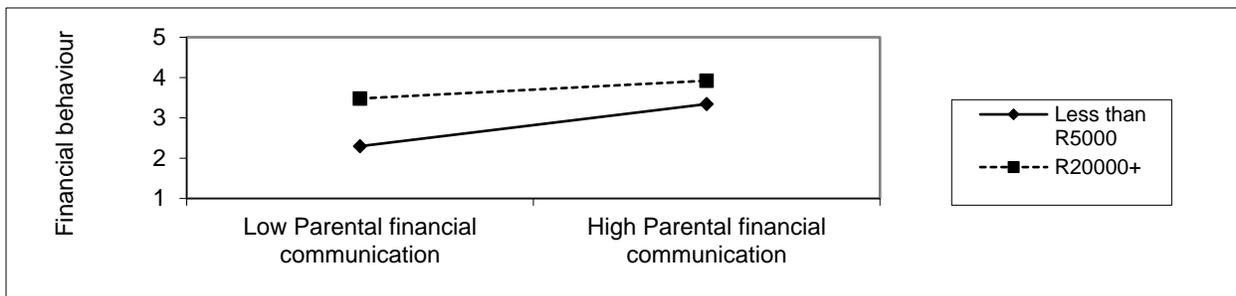
In terms of the main effects, *Parental financial communication* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.383$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.523$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.428$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.275$ ;  $p \leq 0.05$ ). *Parental income* acted as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. In terms of the interaction effects, *Parental income* significantly moderated the relationship of *Parental financial communication* with *Financial knowledge* ( $\beta = -0.365$ ;  $p \leq 0.05$ ;  $R^2 = 0.525$ ;  $F = 86.47$ ), *Financial behaviour* ( $\beta = -0.302$ ;  $p \leq 0.05$ ;  $R^2 = 0.582$ ;  $F = 79.62$ ), *Financial attitude* ( $\beta = -0.363$ ;  $p \leq 0.05$ ;  $R^2 = 0.387$ ;  $F = 39.40$ ), and *Financial decision-making* ( $\beta = 0.269$ ;  $p \leq 0.05$ ;  $R^2 = 0.221$ ;  $F = 17.33$ ). Furthermore, all the interaction effects had a small size.

Figures 7.32, 7.33, 7.34, and 7.35 indicate the interaction effects between *Parental income*, *Parental financial communication*, and *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.



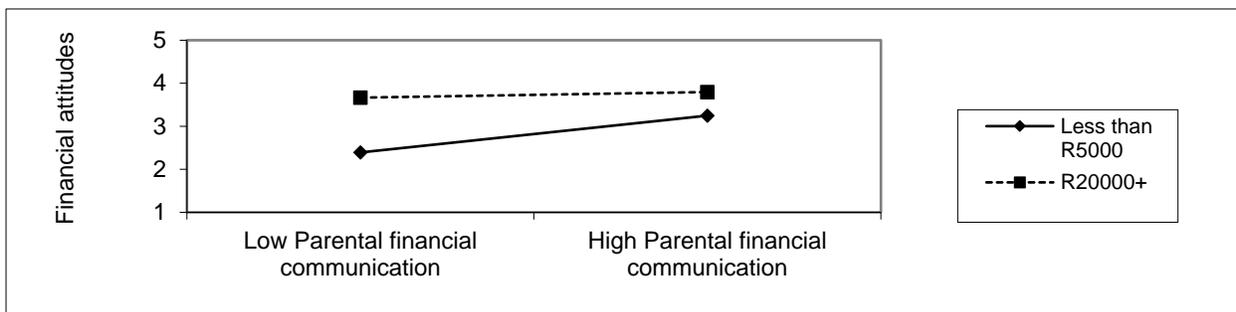
**Figure 7.32: Interaction effects between *Parental income*, *Parental financial communication*, and *Financial knowledge***

Source: SPSS



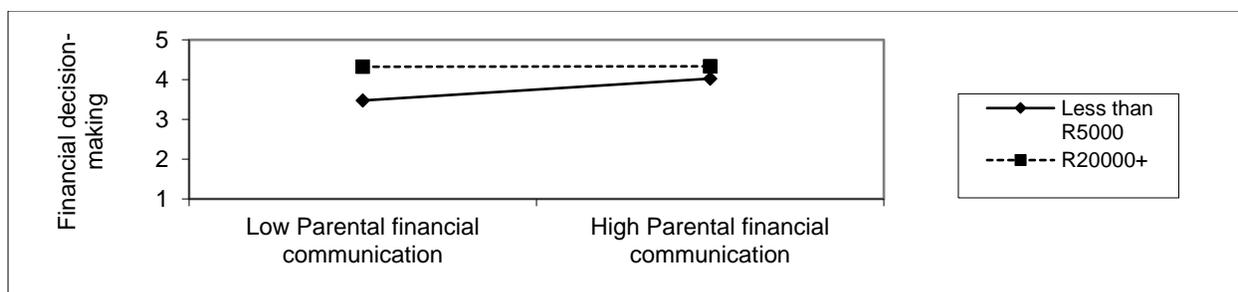
**Figure 7.33: Interaction effects between *Parental income*, *Parental financial communication*, and *Financial behaviour***

Source: SPSS



**Figure 7.34: Interaction effects between *Parental income*, *Parental financial communication*, and *Financial attitude***

Source: SPSS



**Figure 7.35: Interaction effects between *Parental income*, *Parental financial communication*, and *Financial decision-making***

Source: SPSS

As indicated in Figures 7.32, 7.33, 7.34, and 7.35, the relationship of *Parental financial communication* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making* were stronger for those whose parents earned *R20 000+* than for those whose parents earned *Less than R5 000*. Respondents whose parents earned *R20 000+* and who scored higher on *Parental financial communication* achieved significantly higher scores on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

Based on the significant interaction effects, all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypotheses H9d(i), H9d(ii), H9d(iii), and H9d(iv) were accepted because *Parental income* moderated the relationship of *Parental financial communication* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. Therefore, sub-hypothesis (H9d) — that the relationship between parental financial communication and financial literacy is moderated by parental SES (income) — was accepted.

**H9e: The relationship between parental financial teaching and financial literacy is moderated by parental SES (income).**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H9e(i): The relationship between parental financial teaching and financial knowledge is moderated by parental income.**

**H9e(ii): The relationship between parental financial teaching and financial behaviour is moderated by parental income.**

**H9e(iii): The relationship between parental financial teaching and financial attitude is moderated by parental income.**

**H9e(iv): The relationship between parental financial teaching and financial decision-making is moderated by parental income.**

Table 7.99 indicates the results of the moderated regression analysis of the effects of *Parental financial teaching* and *Parental income* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.99: Moderated regression analysis: Effects of *Parental financial teaching* and *Parental income* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

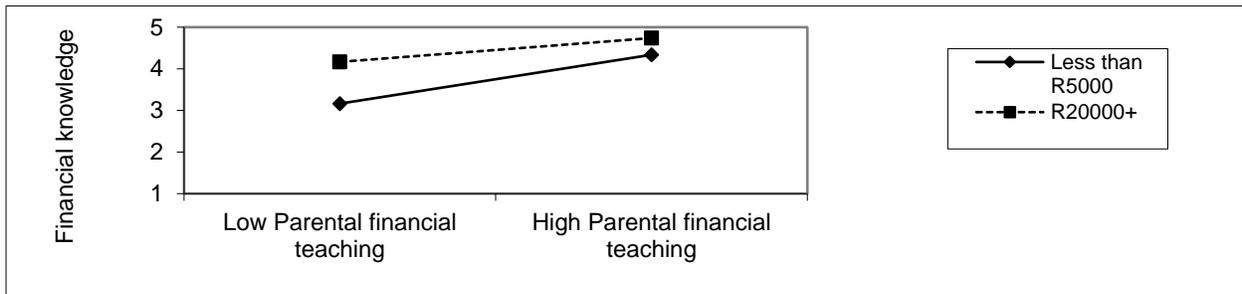
	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial teaching</i>	0.587*	0.554*	0.605*	0.173*
<i>Parental income level</i>	0.702*	0.944*	0.949*	0.554*
<i>Parental financial teaching</i> x <i>Parental income level</i>	-0.301*	-0.395*	-0.427*	0.058
R	0.751*	0.751*	0.660*	0.434*
$R^2$	0.564*	0.564*	0.435*	0.188*
F	161.00*	78.50*	56.69*	17.22*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial teaching* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.587$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.554$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.605$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.173$ ;  $p \leq 0.05$ ). *Parental income* acted as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. In terms of the interaction effects, *Parental income* significantly moderated the relationship of *Parental financial teaching* with *Financial knowledge* ( $\beta = -0.301$ ;  $p \leq 0.05$ ;  $R^2 = 0.564$ ;  $F = 161.00$ ), *Financial behaviour* ( $\beta = -0.395$ ;  $p \leq 0.05$ ;  $R^2 = 0.564$ ;  $F = 78.50$ ), and *Financial attitude* ( $\beta = -0.427$ ;  $p \leq 0.05$ ;  $R^2 = 0.435$ ;  $F = 56.69$ ). However, *Parental income* did not

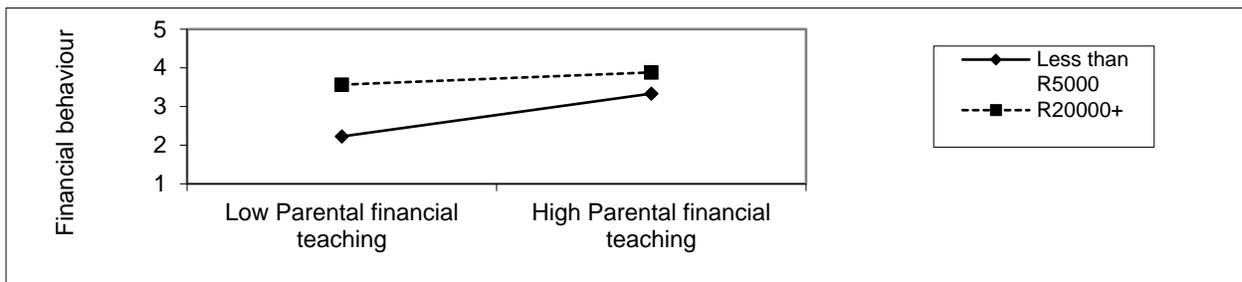
significantly moderate the relationship between *Parental financial teaching* and *Financial decision-making* ( $\beta = 0.058$ ;  $p > 0.05$ ;  $R^2 = 0.188$ ;  $F = 17.22$ ). Furthermore, the interaction effects on *Financial knowledge*, *Financial behaviour*, and *Financial attitude* had a small size.

Figures 7.36, 7.37, and 7.38 indicate the interaction effects between *Parental income*, *Parental financial communication*, *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.



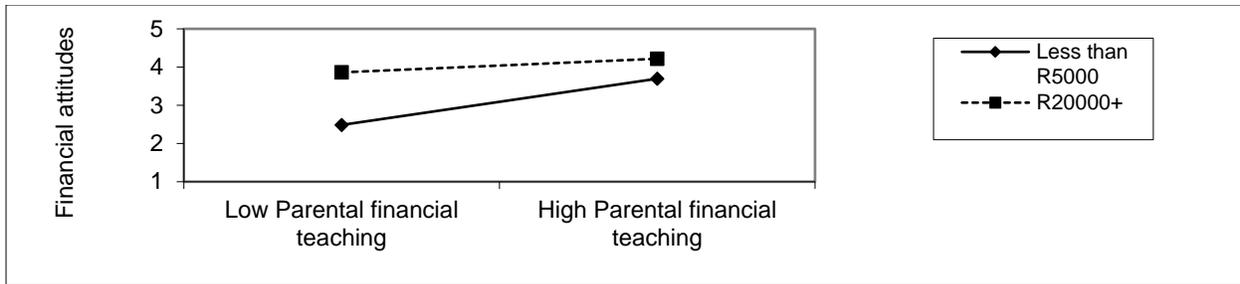
**Figure 7.36: Interaction effects between *Parental income*, *Parental financial teaching*, and *Financial knowledge***

Source: SPSS



**Figure 7.37: Interaction effects between *Parental income*, *Parental financial teaching*, and *Financial behaviour***

Source: SPSS



**Figure 7.38: Interaction effects between *Parental income*, *Parental financial teaching*, and *Financial attitude***

Source: SPSS

As indicated in Figures 7.36, 7.37, and 7.38 the relationships of *Parental financial teaching* with *Financial knowledge*, *Financial behaviour*, and *Financial attitude* were stronger for those whose parents earned *R20 000+* than for those whose parents earned *Less than R5 000*. Respondents whose parents earned *R20 000+* and who scored higher on *Parental financial teaching* achieved significantly higher scores on *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypothesis H9e(iv) was rejected, as *Parental income* did not moderate the relationship between *Parental financial teaching* and *Financial decision-making*. However, Sub-sub-hypotheses H9e(i), H9e(ii), and H9e(iii) were accepted, as *Parental income* moderated the relationship of *Parental financial teaching* with *Financial knowledge*, *Financial behaviour*, and *Financial attitude*. As three sub-sub-hypotheses were accepted and one was rejected, sub-hypothesis (H9e) — that the relationship between parental financial teaching and financial literacy is moderated by parental SES (income) — was accepted.

Table 7.100 indicates the summary of the hypothesis decisions for parental financial socialisation and financial literacy as moderated by social structural factors (parental SES).

**Table 7.100: Summary of the hypothesis decisions for parental financial socialisation and financial literacy as moderated by social structural factors (parental SES)**

<b>Hypothesis</b>	<b>Results</b>
H9a: The relationship between parental financial behaviour and financial literacy is moderated by parental SES (income).	Accepted
H9b: The relationship between parental financial monitoring and financial literacy is moderated by parental SES (income).	Accepted
H9c: The relationship between parental financial discussions and financial literacy is mediated by parental SES (income).	Accepted
H9d: The relationship between parental financial communication and financial literacy is moderated by parental SES (income).	Accepted
H9e: The relationship between parental financial teaching and financial literacy is moderated by parental SES (income).	Accepted

Source: Author's own compilation

As indicated in Table 7.100, all five sub-hypotheses H9a, H9b, H9c, H9d were accepted, therefore the main hypothesis (H9) —that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parent SES) — was accepted.

**H10: The relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).**

To test H10, sub-hypotheses H10a, H10b, H10c, H10d, H10e, H10f, H10g, H10i, and H10j, with the corresponding sub-sub-hypotheses focusing on the child's gender, parental gender, and parental financial socialisation, were tested. The results are reported in this section.

Moderated regression analysis was used to test whether the relationship between parental financial behaviour, parental financial monitoring, parental financial discussions, parental financial communication, and parental financial teaching and financial knowledge, financial behaviour, financial attitude, and financial decision-making is moderated by individual factors (child's gender and parental gender).

**H10a: The relationship between parental financial behaviour and financial literacy is moderated by the child's gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10a(i): The relationship between parental financial behaviour and financial knowledge is moderated by the child's gender.**

**H10a(ii): The relationship between parental financial behaviour and financial behaviour is moderated by the child's gender.**

**H10a(iii): The relationship between parental financial behaviour and financial attitude is moderated by the child's gender.**

**H10a(iv): There relationship between parental financial behaviour and financial decision-making is moderated by the child's gender.**

Table 7.101 indicates the results of the moderated regression analysis of the effects of *Parental financial behaviour* and *Child's gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.101: Moderated regression analysis: Effects of *Parental financial behaviour* and *Child's gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial behaviour</i>	0.698*	0.703*	0.574*	0.393*
<i>Child's gender</i>	-0.025	0.010	0.044	0.008
<i>Parental financial behaviour</i> <i>X</i> <i>Child's gender</i>	-0.085	-0.040	-0.094	-0.076
R	0.647*	0.680*	0.534*	0.353*
$R^2$	0.418*	0.462*	0.286*	0.125*
F	47.82*	62.05*	28.44*	11.03*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial behaviour* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.698$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.703$ ;  $p \leq 0.05$ ),

*Financial attitude* ( $\beta = 0.574$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.393$ ;  $p \leq 0.05$ ). *Child's gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, or *Financial decision-making*. In terms of the interaction effects, *Child's gender* did not significantly moderate the relationship of *Parental financial behaviour* with *Financial knowledge* ( $\beta = -0.085$ ;  $p > 0.05$ ;  $R^2 = 0.418$ ;  $F = 47.82$ ), *Financial behaviour* ( $\beta = -0.040$ ;  $p > 0.05$ ;  $R^2 = 0.462$ ;  $F = 62.05$ ), *Financial attitude* ( $\beta = -0.094$ ;  $p > 0.05$ ;  $R^2 = 0.286$ ;  $F = 28.44$ ), and *Financial decision-making* ( $\beta = -0.076$ ;  $p > 0.05$ ;  $R^2 = 0.125$ ;  $F = 11.03$ ). There was no need to plot the interaction graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10a(i), H10a(ii), H10a(iii), and H10a(iv) were rejected because *Child's gender* did not moderate the relationship of *Parental financial behaviour* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all the sub-sub-hypotheses were rejected, sub-hypothesis (H10a) — that the relationship between parental financial behaviour and financial literacy is moderated by the child's gender — was rejected.

**H10b: The relationship between parental financial monitoring and financial literacy is moderated by the child's gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10b(i): The relationship between parental financial monitoring and financial knowledge is moderated by the child's gender.**

**H10b(ii): The relationship between parental financial monitoring and financial behaviour is moderated by the child's gender.**

**H10b(iii): The relationship between parental financial monitoring and financial attitude is moderated by the child's gender.**

**H10b(iv): The relationship between parental financial monitoring and financial decision-making is moderated by the child's gender.**

Table 7.102 indicates the results of the moderated regression analyses of the effects of *Parental financial monitoring* and *Child's gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.102: Moderated regression analysis: Effects of *Parental financial monitoring* and *Child's gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial monitoring</i>	0.619*	0.649*	0.569*	0.334*
<i>Child's gender</i>	-0.086	-0.053	0.008	-0.027
<i>Financial monitoring</i> X <i>Child's gender</i>	-0.028	-0.034	-0.092	-0.074
R	0.560*	0.575*	0.505*	0.268*
R <sup>2</sup>	0.313*	0.330*	0.255*	0.072*
F	34.87*	38.23*	25.09*	7.33*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial monitoring* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.619$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.649$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.569$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.334$ ;  $p \leq 0.05$ ), while *Child's gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, or *Financial decision-making*. In terms of the interaction effects, *Child's gender* did not significantly moderate the relationship of *Parental financial monitoring* with *Financial knowledge* ( $\beta = -0.028$ ;  $p > 0.05$ ;  $R^2 = 0.313$ ;  $F = 34.87$ ), *Financial behaviour* ( $\beta = -0.034$ ;  $p > 0.05$ ;  $R^2 = 0.330$ ;  $F = 38.23$ ), *Financial attitude* ( $\beta = -0.092$ ;  $p > 0.05$ ;  $R^2 = 0.255$ ;  $F = 25.09$ ), and *Financial decision-making* ( $\beta = -0.074$ ;  $p > 0.05$ ;  $R^2 = 0.072$ ;  $F = 7.33$ ). The interaction effects were not plotted graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10b(i), H10b(ii), H10b(iii), and H10b(iv) were rejected because *Child's gender* did not moderate the relationship of *Parental financial monitoring* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and

*Financial decision-making*. As all the sub-sub-hypotheses were rejected, sub-hypothesis (H10b) — that the relationship between parental financial monitoring and financial literacy is moderated by the child’s gender — was rejected.

**H10c: The relationship between parental financial discussions and financial literacy is mediated by the child’s gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10c(i): The relationship between parental financial discussions and financial knowledge is moderated by the child’s gender.**

**H10c(ii): The relationship between parental financial discussions and financial behaviour is moderated by the child’s gender.**

**H10c(iii): The relationship between parental financial discussions and financial attitude is moderated by the child’s gender.**

**H10c(iv): The relationship between parental financial discussions and financial decision-making is moderated by the child’s gender.**

Table 7.103 indicates the results of the moderated regression analysis of the effects of *Parental financial discussions* and *Child’s gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.103: Moderated regression analysis: Effects of *Parental financial discussions* and *Child’s gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial discussions</i>	0.586*	0.456*	0.394*	0.267*
<i>Child’s gender</i>	-0.033	0.013	0.032	0.001
<i>Financial discussions X Child’s gender</i>	-0.003	0.103	0.022	-0.014
R	0.652*	0.693*	0.543*	0.322*
R <sup>2</sup>	0.425*	0.480*	0.295*	0.104*
F	56.72*	113.55*	31.36*	12.64*

Source: SPSS      Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial discussions* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.586$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.456$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.394$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.267$ ;  $p \leq 0.05$ ). *Child's gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, or *Financial decision-making*. In terms of the interaction effects, *Child's gender* did not significantly moderate the relationship of *Parental financial discussions* with *Financial knowledge* ( $\beta = -0.003$ ;  $p > 0.05$ ;  $R^2 = 0.425$ ;  $F = 56.72$ ), *Financial behaviour* ( $\beta = 0.103$ ;  $p > 0.05$ ;  $R^2 = 0.480$ ;  $F = 113.55$ ), *Financial attitude* ( $\beta = 0.022$ ;  $p > 0.05$ ;  $R^2 = 0.295$ ;  $F = 31.36$ ), and *Financial decision-making* ( $\beta = -0.014$ ;  $p > 0.05$ ;  $R^2 = 0.104$ ;  $F = 12.64$ ). As there were no significant moderated interaction effects, the interactions were not graphically plotted.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10c(i), H10c(ii), H10c(iii), and H10c(iv) were rejected because *Child's gender* did not moderate the relationship of *Parental financial discussions* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all the sub-sub-hypotheses were rejected, sub-hypothesis (H10c) — that the relationship between parental financial discussions and financial literacy is moderated by the child's gender — was rejected.

**H10d: The relationship between parental financial communication and financial literacy is moderated by the child's gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10d(i): The relationship between parental financial communication and financial knowledge is moderated by the child's gender.**

**H10d(ii): The relationship between parental financial communication and financial behaviour is moderated by the child's gender.**

**H10d(iii): The relationship between parental financial communication and financial attitude is moderated by the child's gender.**

**H10d(iv): The relationship between parental financial communication and financial decision-making is moderated by the child’s gender.**

Table 7.104 indicates the results of the moderated regression analyses of the effects of *Parental financial communication* and *Child’s gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.104: Moderated regression analysis: Effects of *Parental financial communication* and *Child’s gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial communication</i>	0.499*	0.493*	0.357*	0.426*
<i>Child’s gender</i>	-0.044	-0.005	0.032	0.006
<i>Financial communication X Child’s gender</i>	0.008	0.046	0.015	-0.075
R	0.619*	0.667*	0.554*	0.402*
$R^2$	0.383*	0.444*	0.307*	0.162*
F	41.77*	49.91*	28.88*	14.09*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial communication* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.499$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.493$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.357$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.426$ ;  $p \leq 0.05$ ). *Child’s gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, or *Financial decision-making*. In terms of the interaction effects, *Child’s gender* did not significantly moderate the relationship of *Parental financial communication* with *Financial knowledge* ( $\beta = 0.008$ ;  $p > 0.05$ ;  $R^2 = 0.383$ ;  $F = 41.77$ ), *Financial behaviour* ( $\beta = 0.046$ ;  $p > 0.05$ ;  $R^2 = 0.444$ ;  $F = 49.91$ ), *Financial attitude* ( $\beta = 0.015$ ;  $p > 0.05$ ;  $R^2 = 0.307$ ;  $F = 28.88$ ), and *Financial decision-making* ( $\beta = -0.075$ ;  $p > 0.05$ ;  $R^2 = 0.162$ ;  $F = 14.09$ ). As there were no significant moderated interaction effects, the interactions were not plotted graphically.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10d(i), H10d(ii), H10d(iii), and H10d(iv) were

rejected because *Child's gender* did not moderate the relationship of *Parental financial communication* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all the sub-sub-hypotheses were rejected, sub-hypothesis (H10d) — that the relationship between parental financial communication and financial literacy is moderated by the child's gender — was rejected.

**H10e: The relationship between parental financial teaching and the child's financial literacy is moderated by the child's gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10e(i): The relationship between parental financial teaching and financial knowledge is moderated by the child's gender.**

**H10e(ii): The relationship between parental financial teaching and financial behaviour is moderated by the child's gender.**

**H10e(iii): The relationship between parental financial teaching and financial attitude is moderated by the child's gender.**

**H10e(iv): The relationship between parental financial teaching and financial decision-making is moderated by the child's gender.**

Table 7.105 indicates the results of the moderated regression analysis of the effects of *Parental financial teaching* and *Child's gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.105: Moderated regression analysis: Effects of *Parental financial teaching* and *Child's gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial teaching</i>	0.777*	0.655*	0.448*	0.406*
<i>Child's gender</i>	-0.072	-0.046	0.013	-0.020
<i>Financial teaching X Child's gender</i>	-0.069	0.027	0.045	-0.056
R	0.679*	0.683*	0.618*	0.372*
R <sup>2</sup>	0.461*	0.467*	0.382*	0.138*
F	70.62*	74.17*	44.91*	15.24*

Source: SPSS      Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial teaching* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.777$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.655$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.448$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.406$ ;  $p \leq 0.05$ ). *Child's gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, *Financial attitude*, or *Financial decision-making*. In terms of the interaction effects, *Child's gender* did not significantly moderate the relationship of *Parental financial teaching* with *Financial knowledge* ( $\beta = -0.069$ ;  $p > 0.05$ ;  $R^2 = 0.461$ ;  $F = 70.62$ ), *Financial behaviour* ( $\beta = 0.027$ ;  $p > 0.05$ ;  $R^2 = 0.467$ ;  $F = 74.17$ ), *Financial attitude* ( $\beta = 0.045$ ;  $p > 0.05$ ;  $R^2 = 0.382$ ;  $F = 44.91$ ), and *Financial decision-making* ( $\beta = -0.056$ ;  $p > 0.05$ ;  $R^2 = 0.138$ ;  $F = 15.24$ ). There was no need to plot the interactions graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10e(i), H10e(ii), H10e(iii), and H10e(iv) were rejected because *Child's gender* did not moderate the relationship of *Parental financial teaching* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all sub-sub-hypotheses were rejected, sub-hypothesis (H10e) — that the relationship between parental financial teaching and financial literacy is moderated by the child's gender — was rejected.

**H10f: The relationship between parental financial behaviour and financial literacy is moderated by parental gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10f(i): The relationship between parental financial behaviour and financial knowledge is moderated by parental gender.**

**H10f(ii): The relationship between parental financial behaviour and financial behaviour is moderated by parental gender.**

**H10f(iii): The relationship between parental financial behaviour and financial attitude is moderated by parental gender.**

**H10f(iv): There relationship between parental financial behaviour and financial decision-making is moderated by parental gender.**

Table 7.106 reports the results of the moderated regression analysis of the effects of *Parental financial behaviour* and *Parental gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.106: Moderated regression analysis: Effects of *Parental financial behaviour* and *Parental gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Parental financial behaviour</i>	0.698*	0.703*	0.574*	0.393*
<i>Parental gender</i>	0.253*	0.215	0.110	0.294*
<i>Parental financial behaviour X Parental gender</i>	-0.143	-0.033	0.151	-0.075
R	0.647*	0.680*	0.534*	0.353*
$R^2$	0.418*	0.462*	0.286*	0.125*
F	47.82*	62.05*	28.44*	11.03*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial behaviour* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.698$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.703$ ;  $p \leq 0.05$ ),

*Financial attitude* ( $\beta = 0.574$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.393$ ;  $p \leq 0.05$ ). *Parental gender* acted as a predictor of *Financial knowledge* and *Financial decision-making*. However, *Parental gender* did not act as a predictor of *Financial behaviour* or *Financial attitude*. In terms of the interaction effects, *Parental gender* did not significantly moderate the relationship of *Parental financial behaviour* with *Financial knowledge* ( $\beta = -0.143$ ;  $p > 0.05$ ;  $R^2 = 0.418$ ;  $F = 47.82$ ), *Financial behaviour* ( $\beta = -0.033$ ;  $p > 0.05$ ;  $R^2 = 0.462$ ;  $F = 62.05$ ), *Financial attitude* ( $\beta = 0.151$ ;  $p > 0.05$ ;  $R^2 = 0.286$ ;  $F = 28.44$ ), and *Financial decision-making* ( $\beta = -0.075$ ;  $p > 0.05$ ;  $R^2 = 0.125$ ;  $F = 11.03$ ). There was no need to plot the interactions graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10f(i), H10f(ii), H10f(iii) and H10f(iv) were rejected because *Parental gender* did not moderate the relationship of *Parental financial behaviour* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. Therefore, sub-hypothesis (H10f) — that the relationship between parental financial behaviour and financial literacy is moderated by parental gender — was rejected.

**H10g: The relationship between parental financial monitoring and financial literacy is moderated by parental gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10g(i): The relationship between parental financial monitoring and financial knowledge is moderated by parental gender.**

**H10g(ii): The relationship between parental financial monitoring and financial behaviour is moderated by parental gender.**

**H10g(iii): The relationship between parental financial monitoring and financial attitude is moderated by parental gender.**

**H10g(iv): The relationship between parental financial monitoring and financial decision-making is moderated by parental gender.**

Table 7.107 indicates the results of the moderated regression analyses of the effects of *Parental financial monitoring* and *Parental gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

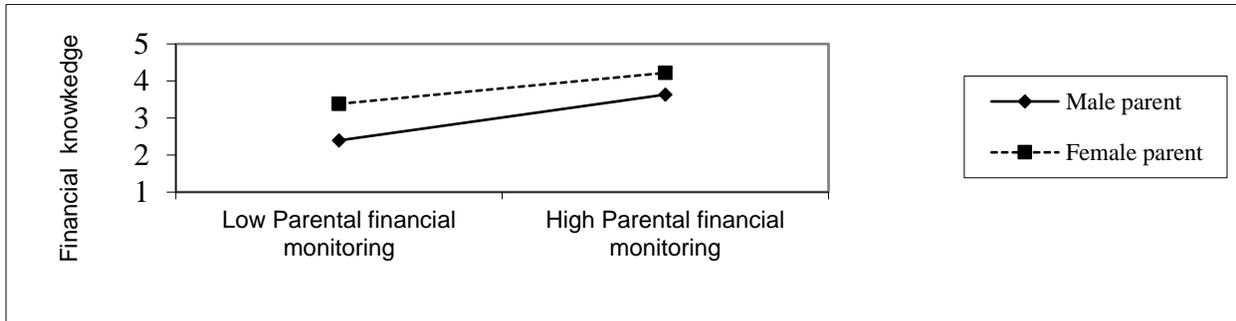
**Table 7.107: Moderated regression analysis: Effects of *Parental financial monitoring* and *Parental gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial monitoring</i>	0.619*	0.649*	0.569*	0.334*
<i>Parental gender</i>	0.300*	0.284*	0.189	0.322*
<i>Financial monitoring X Parental gender</i>	-0.201*	-0.129	0.052	-0.083
R	0.560*	0.575*	0.505*	0.268*
$R^2$	0.313*	0.330*	0.255*	0.072*
F	34.87*	38.23*	25.09*	7.33*

Source: SPSS      Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial monitoring* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.619$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.649$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.569$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.334$ ;  $p \leq 0.05$ ). *Parental gender* acted as a predictor of *Financial knowledge*, *Financial behaviour*, and *Financial decision-making*. However, *Parental gender* did not act as a predictor of *Financial attitude*. In terms of the interaction effects, *Parental gender* significantly moderated the relationship between *Parental financial monitoring* and *Financial knowledge* ( $\beta = -0.201$ ;  $p \leq 0.05$ ;  $R^2 = 0.313$ ;  $F = 34.87$ ). However, *Parental gender* did not significantly moderate the relationship of *Parental financial monitoring* with *Financial behaviour* ( $\beta = -0.129$ ;  $p > 0.05$ ;  $R^2 = 0.330$ ;  $F = 38.23$ ), *Financial attitude* ( $\beta = 0.052$ ;  $p > 0.05$ ;  $R^2 = 0.255$ ;  $F = 25.09$ ), and *Financial decision-making* ( $\beta = -0.083$ ;  $p > 0.05$ ;  $R^2 = 0.072$ ;  $F = 7.33$ ). Furthermore, the interaction effects on *Financial knowledge* had a small size.

Figure 7.39 indicates the interaction effects between *Parental gender*, *Parental financial monitoring*, and *Financial knowledge*.



**Figure 7.39: Interaction effects between *Parental gender*, *Parental financial monitoring*, and *Financial knowledge***

Source: SPSS

As indicated in Figure 7.39, the relationship between *Parental financial monitoring* and *Financial knowledge* was stronger for those who received *Financial monitoring* from a *Female parent* than for those who received it from a *Male parent*. The respondents whose *Female parent* scored high on *Parental financial monitoring* achieved significantly higher scores on *Financial knowledge*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypotheses H10g(ii), H10g(iii), and H10g(iv) were rejected because *Parental gender* did not moderate the relationship of *Parental financial monitoring* with *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. However, sub-sub-hypothesis H10g(i) was accepted, as *Parental gender* moderated the relationship between *Parental financial monitoring* and *Financial knowledge*. As only one sub-sub-hypothesis was accepted and three were rejected, sub-hypothesis (H10g) — that the relationship between parental financial monitoring and financial literacy is moderated by parental gender — was rejected.

**H10h: The relationship between parental financial discussions and financial literacy is moderated by parental gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

H10h(i): The relationship between parental financial discussions and financial knowledge is moderated by parental gender.

H10h(ii): The relationship between parental financial discussions and financial behaviour is moderated by parental gender.

H10h(iii): The relationship between parental financial discussions and financial attitude is moderated by parental gender.

H10h(iv): The relationship between parental financial discussions and financial decision-making is moderated by parental gender.

Table 7.108 indicates the results of the moderated regression analyses of the effects of *Parental financial discussions* and *Parental gender* on the components of *Financial literacy*, namely, *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.108: Moderated regression analysis: the effects of *Parental financial discussions* and *Parental gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial discussions</i>	0.586*	0.456*	0.394*	0.267*
<i>Parental gender</i>	0.291*	0.199*	0.180	0.300*
<i>Financial discussions</i> x <i>Parental gender</i>	-0.097	0.233*	0.126	0.018
R	0.652*	0.693*	0.543*	0.322*
$R^2$	0.425*	0.480*	0.295*	0.104*
F	56.72*	113.55*	31.36*	12.64*

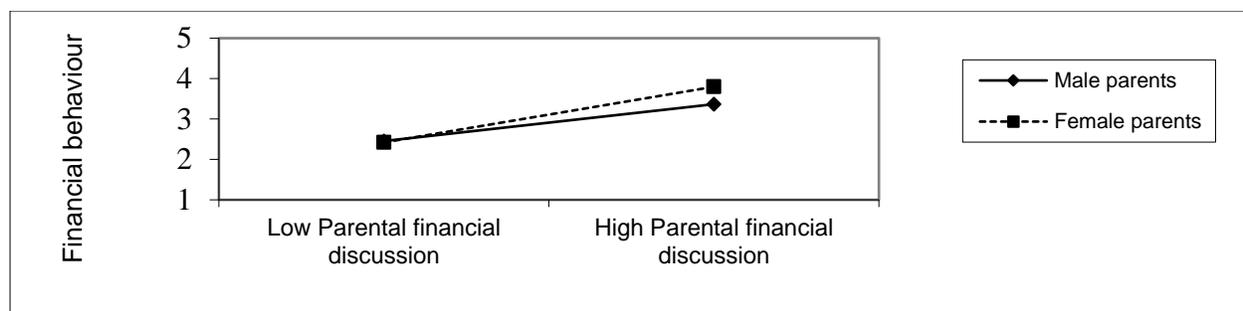
Source: SPSS

Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Financial discussions* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.586$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.456$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.394$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.267$ ;  $p \leq 0.05$ ). *Parental gender* acted as a predictor of *Financial knowledge*, *Financial behaviour*, and *Financial decision-making*. However, *Parental gender* did not act as a predictor of *Financial attitude*. In terms of the interaction effects, *Parental gender*

significantly moderated the relationship between *Financial discussions* and *Financial behaviour* ( $\beta = 0.233$ ;  $p \leq 0.05$ ;  $R^2 = 0.480$ ;  $F = 113.55$ ). However, *Parental gender* did not significantly moderate the relationship of *Financial discussions* with *Financial knowledge* ( $\beta = -0.097$ ;  $p > 0.05$ ;  $R^2 = 0.425$ ;  $F = 56.72$ ), *Financial attitude* ( $\beta = 0.126$ ;  $p > 0.05$ ;  $R^2 = 0.295$ ;  $F = 31.36$ ), and *Financial decision-making* ( $\beta = 0.018$ ;  $p > 0.05$ ;  $R^2 = 0.104$ ;  $F = 12.64$ ). Furthermore, the interaction effects on *Financial behaviour* had a small size.

Figure 7.40 indicates the interaction effects between *Parental gender*, *Financial discussions*, and *Financial behaviour*.



**Figure 7.40: Interaction effects between *Parental gender*, *Financial discussions*, and *Financial behaviour***

Source: SPSS

As indicated in Figure 7.40, the relationship between *Financial discussions* and *Financial behaviour* was stronger for those who received *Financial discussions* from a *Female parents* than for those received it from a *Male parent*. Respondents whose *Female parent* scored high on *Financial discussions* achieved a significantly higher score on *Financial behaviour*.

Based on the non-significant interaction effects, not all the sub-sub-hypotheses mentioned above were accepted. Sub-sub-hypotheses H10h(i), H10h(iii), and H10h(iv) were rejected because *Parental gender* did not moderate the relationship of *Financial discussions* with *Financial knowledge*, *Financial attitude*, and *Financial decision-making*. However, sub-sub-hypothesis H10h(ii) was accepted, as *Parental gender* moderated the relationship between *Financial discussions* and *Financial behaviour*. Because only one

sub-sub-hypothesis was accepted and three were rejected, sub-hypothesis (H10h) — that the relationship between parental financial discussions and financial literacy is moderated by parental gender — was rejected.

**H10i: The relationship between parental financial communication and financial literacy is moderated by parental gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10i(i): The relationship between parental financial communication and financial knowledge is moderated by parental gender.**

**H10i(ii): The relationship between parental financial communication and financial behaviour is moderated by parental gender.**

**H10i(iii): The relationship between parental financial communication and financial attitude is moderated by parental gender.**

**H10i(iv): The relationship between parental financial communication and financial decision-making is moderated by parental gender.**

Table 7.109 indicates the results of the moderated regression analysis of the effects of *Financial communication* and *Parental gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.109: Moderated regression analysis: Effects of *Financial communication* and *Parental gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial communication</i>	0.499*	0.493*	0.357*	0.426*
<i>Parental gender</i>	0.227	0.168	0.104	0.286*
<i>Financial communication X Parental gender</i>	-0.096	0.064	0.132	-0.152
R	0.619*	0.667*	0.554*	0.402*
$R^2$	0.383*	0.444*	0.307*	0.162*
F	41.77*	49.91*	28.88*	14.09*

Source: SPSS

Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Financial communication* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.499$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.493$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.357$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = .426$ ;  $p \leq 0.05$ ). *Parental gender* acted as predictor of *Financial decision-making*. However, *Parental gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, or *Financial attitude*. In terms of the interaction effects, *Parental gender* did not significantly moderate the relationship of *Financial communication* with *Financial knowledge* ( $\beta = -0.096$ ;  $p > 0.05$ ;  $R^2 = 0.383$ ;  $F = 41.77$ ), *Financial behaviour* ( $\beta = 0.064$ ;  $p > 0.05$ ;  $R^2 = 0.444$ ;  $F = 49.91$ ), *Financial attitude* ( $\beta = 0.132$ ;  $p > 0.05$ ;  $R^2 = 0.307$ ;  $F = 28.88$ ), and *Financial decision-making* ( $\beta = -0.152$ ;  $p > 0.05$ ;  $R^2 = 0.162$ ;  $F = 14.09$ ). There was no need to plot the interactions graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-sub-hypotheses mentioned above were rejected. Sub-sub-hypotheses H10i(i), H10i(ii), H10i(iii), and H10i(iv) were rejected because *Parental gender* did not moderate the relationship of *Financial communication* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all the sub-sub-hypotheses were rejected, sub-hypothesis (H10i) — that the relationship between parental financial communication and financial literacy is moderated by parental gender — was rejected.

**H10j: The relationship between parental financial teaching and financial literacy is moderated by parental gender.**

To test this sub-hypothesis, the following sub-sub-hypotheses were tested:

**H10j(i): The relationship between parental financial teaching and financial knowledge is moderated by parental gender.**

**H10j(ii): The relationship between parental financial teaching and financial behaviour is moderated by parental gender.**

**H10j(iii): The relationship between parental financial teaching and financial attitude is moderated by parental gender.**

**H10j(iv): The relationship between parental financial teaching and financial decision-making is moderated by parental gender.**

Table 7.110 indicates the results of the moderated regression analysis of the effects of *Financial teaching* and *Parental gender* on the components of *Financial literacy*, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

**Table 7.110: Moderated regression analysis: Effects of *Financial teaching* and *Parental gender* on *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making***

	Financial knowledge $\beta$	Financial behaviour $\beta$	Financial attitude $\beta$	Financial decision-making $\beta$
<i>Financial teaching</i>	0.777*	0.655*	0.448*	0.406*
<i>Parental gender</i>	0.203	0.195	0.120	0.273*
<i>Financial teaching X Parental gender</i>	-0.120	-0.151	0.088	-0.099
R	0.679*	0.683*	0.618*	0.372*
$R^2$	0.461*	0.467*	0.382*	0.138*
F	70.62*	74.17*	44.91*	15.24*

Source: SPSS Notes: \* significant at  $p \leq 0.05$ ; X indicates interaction

In terms of the main effects, *Parental financial teaching* acted as a significant predictor of *Financial knowledge* ( $\beta = 0.777$ ;  $p \leq 0.05$ ), *Financial behaviour* ( $\beta = 0.655$ ;  $p \leq 0.05$ ), *Financial attitude* ( $\beta = 0.448$ ;  $p \leq 0.05$ ), and *Financial decision-making* ( $\beta = 0.406$ ;  $p \leq 0.05$ ). *Parental gender* acted as a predictor of *Financial decision-making*. However, *Parental gender* did not act as a predictor of *Financial knowledge*, *Financial behaviour*, or *Financial attitude*. In terms of the interaction effects, *Parental gender* did not significantly moderate the relationship of *Parental financial teaching* with *Financial knowledge* ( $\beta = -0.120$ ;  $p > 0.05$ ;  $R^2 = 0.461$ ;  $F = 70.62$ ), *Financial behaviour* ( $\beta = -0.151$ ;  $p > 0.05$ ;  $R^2 = 0.467$ ;  $F = 74.17$ ), *Financial attitude* ( $\beta = 0.088$ ;  $p > 0.05$ ;  $R^2 = 0.382$ ;  $F = 44.91$ ), and *Financial decision-making* ( $\beta = -0.099$ ;  $p > 0.05$ ;  $R^2 = 0.138$ ;  $F = 15.24$ ). There is no need to plot the interactions graphically, as there were no significant moderating interaction effects.

Based on the non-significant interaction effects, all the sub-hypotheses mentioned above were rejected. Sub-hypotheses H10j(i), H10j(ii), H10j(iii), and H10j(iv) were rejected, as *Parental gender* did not moderate the relationship of *Parental financial teaching* with *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. As all the sub-hypotheses were rejected, the main hypothesis (H10j) — that the relationship between parental financial teaching and financial literacy is moderated by parental gender — was rejected.

Table 7.111 indicates the summary of the hypothesis decisions for parental financial socialisation and financial literacy as moderated by individual factors (child’s gender and parental gender).

**Table 7.111: Summary of the hypothesis decisions for parental financial socialisation and financial literacy as moderated by individual factors**

<b>Hypothesis</b>	<b>Results</b>
H10a: The relationship between parental financial behaviour and financial literacy is moderated by the child’s gender.	Rejected
H10b: The relationship between parental financial monitoring and financial literacy is moderated by the child’s gender.	Rejected
H10c: The relationship between parental financial discussions and financial literacy is moderated by the child’s gender.	Rejected
H10d: The relationship between parental financial communication and financial literacy is moderated by the child’s gender.	Rejected
H10e: The relationship between parental financial teaching and financial literacy is moderated by the child’s gender.	Rejected
H10f: The relationship between parental financial behaviour and financial literacy is moderated by parental gender.	Rejected
H10g: The relationship between parental financial monitoring and financial literacy is moderated by parental gender.	Rejected
H10h: The relationship between parental financial discussions and financial literacy is moderated by parental gender.	Rejected
H10i: The relationship between parental financial communication and financial literacy is moderated by parental gender.	Rejected
H10j: The relationship between parental financial teaching and financial literacy is moderated by parental gender.	Rejected

Source: Author’s own compilation

As indicated in Table 7.115 all ten sub-hypotheses H10a, H10b, H10c, H10d, H10e, H10f, H10g, H10h, H10i, H10j were rejected, therefore the main hypothesis (H10) —that the

relationship between parental financial socialisation and financial literacy is moderated by individual factors (child gender and parental gender) —was rejected.

Table 7.112 indicates the summary of the decisions regarding H1, H2, H3, H6, H7, H6, H7, H8, H9, and H10.

**Table 7.112: Summary of the decisions regarding the main study hypotheses**

<b>Hypothesis</b>	<b>Results</b>
H1: Young black African adults are financially literate.	Rejected
H2: Young black African adults are financially socialised by their parents.	Accepted
H3: There is a significant difference in parental financial socialisation across parental SES (parental income and parental level of education).	Accepted
H4: There is a significant difference in parental financial socialisation according to the child's gender.	Rejected
H5: There is a significant difference in parental financial socialisation according to parental gender.	Accepted
H6: There is a significant positive relationship between culture and parental financial socialisation	Rejected
H7: There is a significant positive relationship between parenting style and parental financial socialisation.	Accepted
H8: There is a significant positive relationship between parental financial socialisation and financial literacy.	Accepted
H9: The relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).	Accepted
H10: The relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).	Rejected

Source: Author's own compilation

Four hypotheses (H1, H4, H6, and H10) were rejected, six hypotheses (H2, H3, H5, H7, H8, and H9) were accepted. The next section presents the results of the structural equation modelling (SEM).

## **7.9 STRUCTURAL EQUATION MODELLING**

The objective of SEM is to establish whether a model derived from theory had a close fit to the collected data (Byrne, 2010). SEM was used in this study to achieve the objective of the study, which was to develop a parental financial socialisation model for young black African adults in South Africa. The EFA yielded four dependent variables, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. This means that the tested model had to be divided into four modules to explain

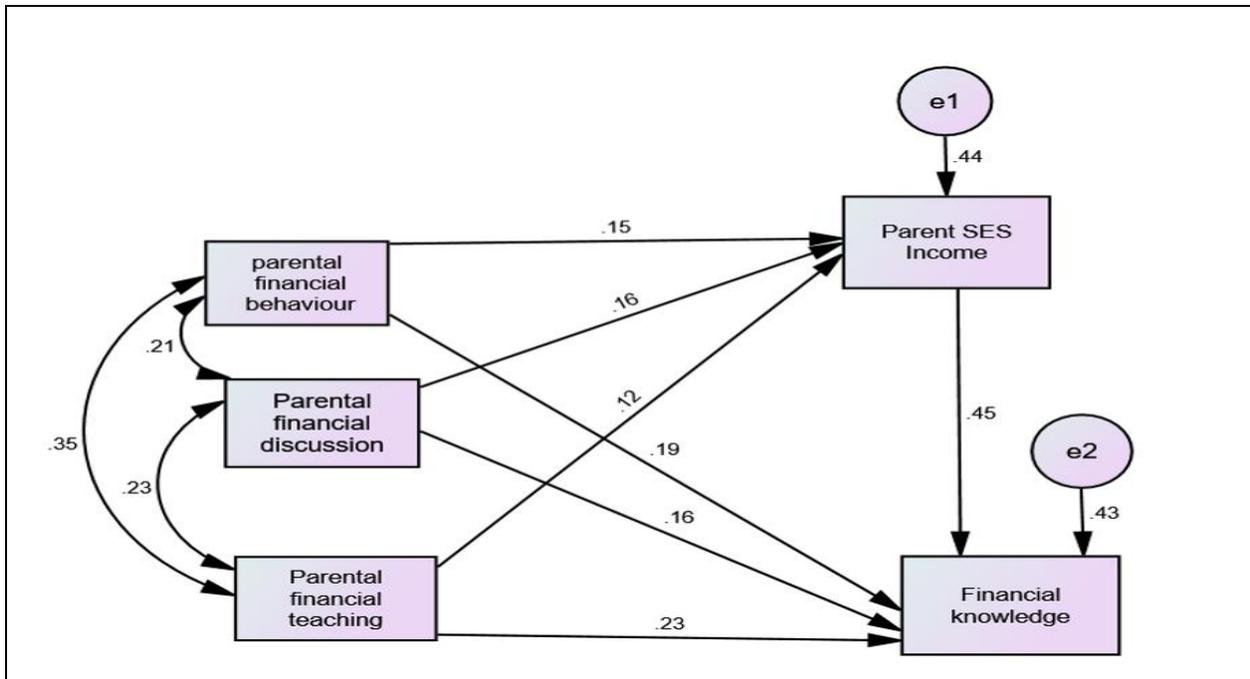
the influence of parental financial socialisation on financial literacy. The models, which are discussed next, were the Financial Knowledge Model, the Financial Behaviour Model, the Financial Attitude Model, and the Financial Decision-making Model.

### **7.9.1 Financial Knowledge Model**

The Financial Knowledge Model, indicated in Figure 7.41, consisted of the dependent variable *Financial knowledge*, the independent variables *Parental financial behaviour*, *Financial discussions*, and *Financial teaching*, and the moderator variable *Parental SES (Parental income)*. The independent variable with the estimate contribution of above 0.110 which indicated large main effect, and which was significant was selected to be part of the model as recommended by Hair et al. (2014). This model hypothesised that financial knowledge is predicted by parental financial behaviour, parental financial discussions, and parental financial teaching. The model further hypothesised that parental SES, specifically parental income, moderates the relationship of parental financial behaviour, parental financial discussions, and parental financial teaching with financial knowledge.

In all the graphics, the single-headed arrows indicate causal relationships and the contribution of the influence of the independent variables, moderator variable, and the dependent variable. The double-headed arrows represent covariances between independent variables. Terms *e1* and *e2* represent the error terms. The numbers represent the contribution of the influence of each independent variable on the dependent variable.

The Financial Knowledge Model is shown in Figure 7.41.



**Figure 7.41: Financial Knowledge Model**

Source: AMOS

### 7.9.1.1 *Maximum likelihood estimates of the Financial Knowledge Model*

Maximum likelihood parameter estimation was chosen ahead of other estimation methods such as weighted least squares and ordinary least square, to mention a few widely used methods, because it attempts to maximise the likelihood that obtained values of the criterion variable will be correctly predicted (Dion, 2008).

The Financial Knowledge Model indicates the significant causal relationship between the independent variables *Parental financial behaviour*, *Parental financial discussions*, and *Parental financial teaching* and the moderator variable *Parent SES (Parental income)* with the dependent variable *Financial knowledge*. Table 7.113 presents the regression weights for the model variables.

**Table 7.113: Regression weight of the Financial Knowledge Model: Group 1  
(Default model)**

			Est	SE	CR	SRW	p
<i>Financial knowledge</i>	<---	<i>Parental financial behaviour</i>	0.190	0.035	5.467	0.227	0.000
<i>Financial knowledge</i>	<---	<i>Parental financial discussions</i>	0.160	0.034	4.651	0.187	0.000
<i>Financial knowledge</i>	<---	<i>Parental financial teaching</i>	0.230	0.041	5.985	0.251	0.000
<i>Financial knowledge</i>	<---	<i>Parent SES (Parental income)</i>	0.452	0.131	6.179	0.413	0.000
<i>Parent SES (Parental income)</i>	<---	<i>Parental financial behaviour</i>	0.153	0.111	4.119	0.166	0.001
<i>Parent SES (Parental income)</i>	<---	<i>Parental financial discussions</i>	0.162	0.056	4.209	0.174	0.004
<i>Parent SES (Parental income)</i>	<---	<i>Parental financial teaching</i>	0.124	0.042	3.890	0.132	0.000

Estimate = estimated path coefficient (prediction) for arrows in the model

SE = standard error

CR = critical ratio

SRW = standardised regression weights

p = probability value (< 0.05 = significant at 1%\*\*\*)

The estimates ranged from 0.124 to 0.452. *Parental financial behaviour* showed a significant positive linear relationship with *Financial knowledge*, and its contribution was 0.190, with a significant *p*-value of 0.000. This meant that an increase in the value of *Parental financial behaviour* led to an increase in the value of *Financial knowledge*. *Parental financial discussions* was observed to have a significant influence on *Financial knowledge*; its contribution was 0.160, with a significant *p*-value of 0.000. Thus, an increase in the value of *Parental financial discussions* led to an increase in the value of *Financial knowledge*. *Parental financial teaching* had a significant positive relationship with *Financial knowledge*; its contribution was 0.230, with a significant *p*-value of 0.000. Therefore, an increase in the value of *Parental financial teaching* led to an increase in the value of *Financial knowledge*. It was observed that *Parental SES (Parental income)* made the largest contribution to *Financial knowledge* (0.452, or approximately 45%). Table 7.114 indicates the squared multiple regression correlation of the Financial Knowledge Model.

**Table 7.114: Squared multiple regression correlations of the Financial Knowledge Model: Group 1 (Default model)**

	Estimate
<i>Financial knowledge</i>	0.491

Source: AMOS

Table 7.114 indicates that the independent variables explained 49% ( $R^2=0.491$ ) of the Financial Knowledge Model. The  $R^2$  of the Financial Knowledge Model represented a large practical effect size (Kraft, 2020). This meant that the Financial Knowledge Model was valid, reliable, and acceptable.

### 7.9.1.2 *Financial Knowledge Model goodness-of-fit indices*

This section presents the results of the goodness-of-fit indices. Fit indices are used to inform the researcher on how closely the data fit the model (Hair et al., 2014). Table 7.115 indicates the results of the Financial Knowledge Model goodness-of-fit indices.

**Table 7.115: Financial Knowledge Model goodness-of-fit indices**

Index	Recommended value	Actual value	Remark
Chi-square (CMIN)	< 0.05	0.001	Very good
Goodness-of-fit index (GFI)	≥ 0.95 (not generally recommended)	1.000	Very good
Comparative fit index (CFI)	≤ 1 (values close to 1 indicate a very good fit)	0.936	Very good
Root mean square error of approximation (RMSEA)	< 0.08	0.073	Very good
Standardised root mean square residual (SRMR)	< 0.08	0.043	Good
Normed fit index (NFI)	≤ 1 (values close to 1 indicate a very good fit)	0.626	Good
Tucker-Lewis index (TLI)	≤ 1 (values close to 1 indicate a very good fit)	0.901	Very good

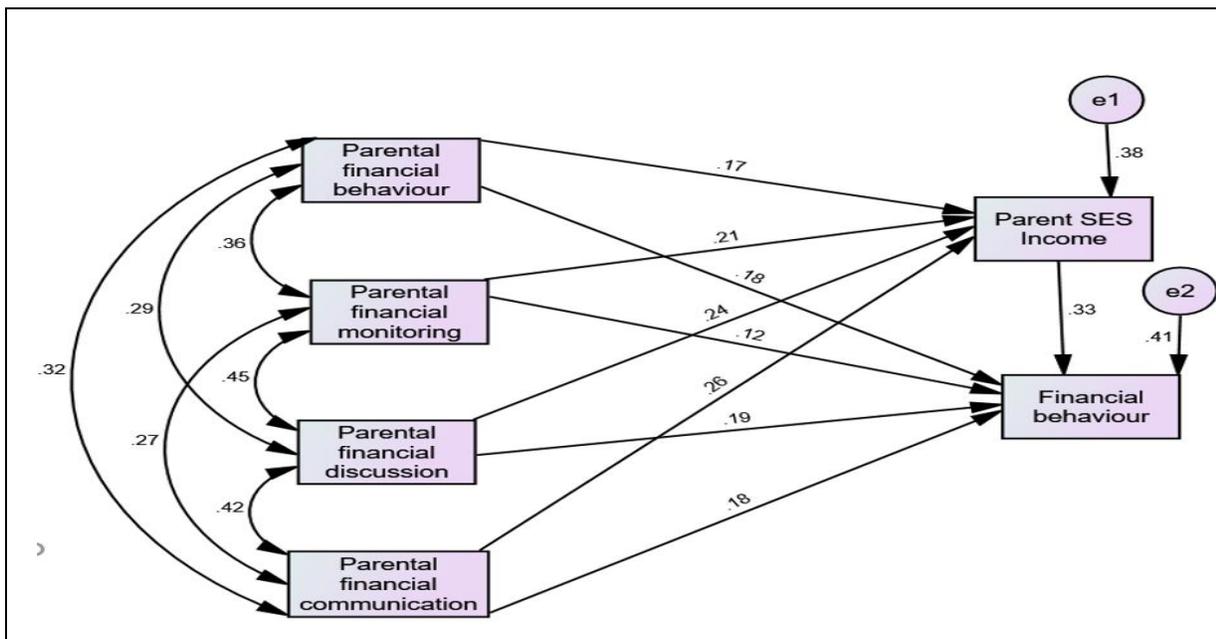
Source: AMOS

As indicated in Table 7.115, the goodness-of-fit indices showed a good fit between the data and the Financial Knowledge Model. All the goodness-of-fit-indices confirmed that the data fit the model significantly (CMIN = 0.001; GFI = 1.000; CFI = 0.936;

RMSEA = 0.073; SRMR = 0.043; NFI = 0.626; TLI = 0.901). This meant that the model fit the data being tested, and that it was valid, reliable, and acceptable (Hair et al., 2014).

### 7.9.2 Financial Behaviour Model

The Financial Behaviour Model, indicated in Figure 7.42, consisted of the dependent variable *Financial behaviour*, the independent variables *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, and *Parental financial communication*, and the moderator variable *Parental SES (Parental income)*. The independent variable with the estimate contribution of above 0.110 which indicated large main effect, and which was significant was selected to be part of the model as recommended by Hair et al. (2014). This model hypothesised that financial behaviour is predicted by parental financial behaviour, parental financial monitoring, parental financial discussions, and parental financial communication. It also hypothesised that parental SES, specifically parental income, moderates the relationship of parental financial behaviour, parental financial monitoring, parental financial discussions, and parental financial communication with financial behaviour. The Financial Behaviour Model is shown in Figure 7.42.



**Figure 7.42: Financial Behaviour Model**

Source: AMOS

### 7.9.2.1 Maximum likelihood estimates of the Financial Behaviour Model

The Financial Behaviour Model indicates the significant causal relationship of the independent variables *Parental financial behaviour*, *Parental financial monitoring*, *Parental financial discussions*, and *Parental financial communication* and the moderator variable *Parental SES (Parental income)* with the dependent variable *Financial behaviour*. Table 7.116 presents the regression weights for the model variables.

**Table 7.116: Regression weight of the Financial Behaviour Model: Group 1 (Default model)**

			Est.	SE	CR	SRW	p
<i>Financial behaviour</i>	<---	<i>Parental financial behaviour</i>	0.184	0.036	5.168	0.210	0.000
<i>Financial behaviour</i>	<---	<i>Parental financial monitoring</i>	0.123	0.037	3.323	0.125	0.001
<i>Financial behaviour</i>	<---	<i>Parental financial discussions</i>	0.190	0.042	4.454	0.205	0.000
<i>Financial behaviour</i>	<---	<i>Parental financial communication</i>	0.182	0.035	5.134	0.209	0.000
<i>Financial behaviour</i>	<---	<i>Parental SES (Parental income)</i>	0.331	0.087	3.105	0.113	0.000
Parental SES (Parental income)	<---	<i>Parental financial behaviour</i>	0.173	0.061	3.811	0.154	0.001
Parental SES (Parental income)	<---	<i>Parental financial monitoring</i>	0.212	0.044	4.321	0.199	0.003
Parental SES (Parental income)	<---	<i>Parental financial discussions</i>	0.244	0.036	4.109	0.164	0.002
Parental SES (Parental income)	<---	<i>Parental financial communication</i>	0.265	0.052	3.790	0.134	0.000

Estimate= estimated path coefficient (prediction) for arrows in the model

SE= standard error

CR= critical ratio

SRW= standardised regression weights

p = probability value (< 0.05 = significant at 1%\*\*\*)

The estimates ranged from 0.123 to 0.331. *Parental financial behaviour* had a significant positive linear relationship to *Financial behaviour*; its contribution was 0.184, with a significant *p*-value of 0.000. This meant that an increase in the value of *Parental financial behaviour* led to an increase in the value of *Financial behaviour*. *Parental financial monitoring* had a significant influence on *Financial behaviour*; its contribution was 0.123, with a significant *p*-value of 0.001. This meant that an increase in the value of *Parental financial monitoring* led to an increase in *Financial behaviour*. *Parental financial*

*discussions* was observed to have a significant influence on *Financial behaviour*, its contribution was 0.190, with a significant *p*-value of 0.000. Thus, an increase in the value of *Parental financial discussions* led to an increase in the value of *Financial behaviour*. *Parental financial communication* had a significant positive relationship to *Financial behaviour*, its contribution was 0.182, with a significant *p*-value of 0.000. Therefore, an increase in the value of *Parental financial communication* led to an increase in the value of *Financial behaviour*. It was observed that *Parental SES (Parental income)* made the largest contribution to *Financial behaviour* (0.331, or approximately 33%). Table 7.117 indicates the squared multiple regression correlations of the Financial Behaviour Model.

**Table 7.117: Squared multiple regression correlations of the Financial Behaviour Model: Group 1 (Default model)**

	<b>Estimate</b>
<i>Financial behaviour</i>	0.523

Source: AMOS

Table 7.117 indicates that the independent variables explained 52% ( $R^2=0.523$ ) of the Financial Behaviour Model. The  $R^2$  of the Financial Behaviour Model represented large practical effect size, which meant the model was valid, reliable, and acceptable (Hair et al., 2014).

### **7.9.2.2 Financial behaviour model goodness-of-fit indices**

This section presents the results of the goodness-of-fit indices. Table 7.118 indicates the results of the Financial Behaviour Model's goodness-of-fit indices.

**Table 7.118: Financial Behaviour Model goodness-of-fit indices**

Index	Recommended value	Actual value	Remark
CMIN	< 0.05	0.000	Very good
GFI	≥ 0.95 (not generally recommended)	1.000	Very good
CFI	≤ 1 (values close to 1 indicate a very good fit)	1.000	Very good
RMSEA	< 0.08	0.178	Insignificant, therefore poor model fit
SRMR	< 0.08	0.032	Good
NFI	≤ 1 (values close to 1 indicate a very good fit)	0.734	Good
TLI	≤ 1 (values close to 1 indicate a very good fit)	0.953	Very good

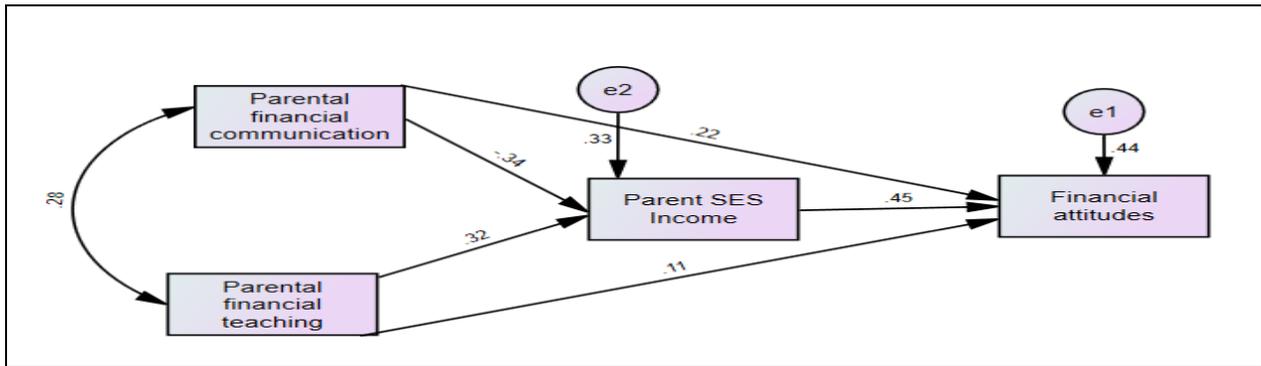
Source: AMOS

As indicated in Table 7.118, the goodness-of-fit indices showed a good fit between the data and the Financial Behaviour Model. Almost all the goodness-of-fit indices confirmed that the data fit the model significantly (CMIN = 0.000; GFI = 1.000; CFI = 1.000; SRMR = 0.032; NFI = 0.734; TLI = 0.953). Only the RMSEA (0.178) indicated a poor model fit. However, as the majority of the indices confirmed a good model fit, the results of the RMSEA were rejected. Therefore, it was concluded that the model fit the data, and that it was valid, reliable, and acceptable (Hair et al., 2014).

### 7.9.3 *Financial Attitude Model*

The Financial Attitude Model, indicated in Figure 7.43, consisted of the dependent variable *Financial attitude*, the independent variables *Parental financial communication* and *Parental financial teaching*, and the moderator variable *Parental SES (Parental income)*. The independent variable with the estimate contribution of above 0.110 which indicated large main effect, and which was significant was selected to be part of the model as recommended by Hair et al. (2014). This model hypothesised that financial attitude is predicted by parental financial communication, and parental financial teaching. It also hypothesised that parent SES, specifically parental income, moderates the relationships of parental financial communication and parental financial teaching with financial attitude. The single-headed arrows indicate causal relationships and the contribution of the influence of the independent variables, the moderator variable, and the dependent

variable. The double-headed arrows represent covariances between independent variables. The terms *e1* and *e2* represent the error terms. The numbers represent the contribution of the influence of each independent variable on the dependent variable. The Financial Attitude Model is shown in Figure 7.43.



**Figure 7.43: Financial Attitude Model**

Source: AMOS

### 7.9.3.1 Maximum likelihood estimates of the Financial Attitude Model

The Financial Attitude Model indicates the significant casual relationship between the independent variables *Parental financial communication* and *Parental financial teaching* and the moderator variable *Parental SES (Parental income)* with the dependent variable *Financial attitude*. Table 7.119 presents the regression weights for the model variables.

**Table 7.119: Regression weights of the Financial Attitude Model: (Group 1 — Default model)**

			Est.	SE	CR	SRW	<i>p</i>
<i>Financial attitude</i>	<---	<i>Parental financial communication</i>	0.223	0.050	4.245	0.262	0.001
<i>Financial attitude</i>	<---	<i>Parental financial teaching</i>	0.114	0.037	2.910	0.142	0.000
<i>Financial attitude</i>	<---	<i>Parental SES (Parental income)</i>	0.451	0.098	5.213	0.113	0.000
<i>Parental SES (Parental income)</i>	<---	<i>Parental financial communication</i>	-0.343	0.071	-4.931	0.154	0.001
<i>Parental SES (Parental income)</i>	<---	<i>Parental financial teaching</i>	0.322	0.064	4.723	0.199	0.002

Estimate= estimated path coefficient (prediction) for arrows in the model  
 SE= standard error; SRW= standardised regression weights  
 CR= critical ratio; *p* = probability value (< 0.05 = significant at 1%\*\*\*)

The estimates ranged from -0.343 to 0.451. *Parental financial communication* had a significant positive linear relationship to *Financial attitude*; its contribution was 0.223, with a significant *p*-value of 0.001. This meant that an increase in the value of *Parental financial communication* led to an increase in the value of *Financial attitude*. *Parental financial teaching* was observed to have a significant influence on *Financial attitude*; its contribution was 0.114, with a significant *p*-value of 0.000. This meant that an increase in the value of *Parental financial teaching* led to an increase in *Financial attitude*. It was observed that *Parental SES (Parental income)* made the largest contribution to *Financial attitude* (0.451, or approximately 45%). Table 7.120 indicates the squared multiple regression correlations of the Financial Attitude Model.

**Table 7.120: Squared multiple regression correlations of the Financial Attitude Model: Group 1 (Default model)**

	Estimate
<i>Financial attitude</i>	0.563

Source: AMOS

Table 7.120 indicates that the independent variables explained 56% ( $R^2=0.563$ ) of the Financial Attitude Model. The  $R^2$  of the Financial Attitude Model represented large practical effect size, which meant the model was valid, reliable, and acceptable (Hair et al., 2014).

### **7.9.3.2 The Financial Attitude Model goodness-of-fit indices**

This section presents the results of the goodness-of-fit indices of the Financial Attitude Model, shown in Table 7.121.

**Table 7.121: Financial Attitude Model goodness-of-fit indices**

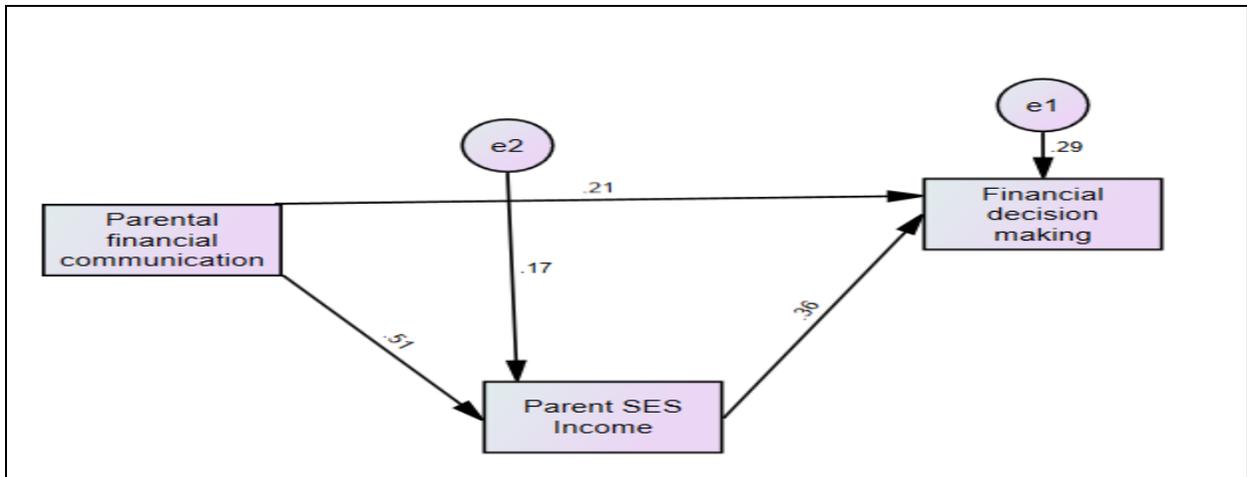
Index	Recommended value	Actual value	Remark
CMIN	< 0.05	0.000	Very good
GFI	≥ 0.95 (generally not recommended)	0.982	Very good
CFI	≤ 1 (values close to 1 indicate a very good fit)	1.000	Very good
RMSEA	< 0.08	0.254	Insignificant, therefore poor model fit
SRMR	< 0.08	0.041	Good
NFI	≤ 1 (values close to 1 indicate a very good fit)	0.844	Good
TLI	≤ 1 (values close to 1 indicate a very good fit)	1.000	Very good

Source: AMOS

As indicated in Table 7.121, the goodness-of-fit indices showed a good fit between the data and the Financial Attitude Model. Almost all the goodness-of-fit indices confirmed that the data fit the model significantly (CMIN = 0.000; GFI = 0.982; CFI = 1.000, SRMR = 0.041; NFI = 0.844; TLI = 1.000). Only the RMSEA (0.254) indicated a poor model fit. However, as the majority of the indices confirmed a good model fit, the results of the RMSEA were rejected. Therefore, it was concluded that the Financial Attitude Model fit the data, and that it was valid, reliable, and acceptable (Hair et al., 2014).

#### 7.9.4 Financial Decision-making Model

The Financial Decision-making Model, shown in Figure 7.44, consisted of the dependent variable *Financial decision-making*, the independent variable *Parental financial communication*, and the moderator variable *Parental SES (Parental income)*. The independent variable with the estimate contribution of above 0.110 which indicated large main effect, and which was significant was selected to be part of the model as recommended by Hair et al. (2014). This model hypothesised that financial decision-making is predicted by parental financial communication. It also hypothesised that parental SES, specifically parental income, moderated the relationship between parental financial communication and financial decision-making. Figure 7.44 shows the Financial Decision-making Model.



**Figure 7.44: Financial Decision-making Model**

Source: AMOS

**7.9.4.1 Maximum likelihood estimates of the Financial Decision-making Model**

The Financial Decision-making Model indicated the significant causal relationship between the independent variable *Parental financial communication* and the moderator variable *Parental SES (Parental income)* with the dependent variable *Financial decision-making*. Table 7.122 presents the regression weights for the model variables.

**Table 7.122: Regression weight of the Financial Decision-making Model: Group 1 (Default model)**

			Est.	SE	CR	SRW	p
<i>Financial decision-making</i>	<---	<i>Parental financial communication</i>	0.214	0.046	2.839	0.183	0.005
<i>Financial decision-making</i>	<---	<i>Parental SES (Parental income)</i>	0.363	0.068	4.212	0.143	0.000
<i>Parental SES (Parental income)</i>	<---	<i>Parental financial communication</i>	0.513	0.071	4.861	0.194	0.001

Est= estimated path coefficient (prediction) for arrows in the model

SE= standard error

CR= critical ratio

SRW= standardised regression weights

p = probability value (< 0.05 = significant at 1%\*\*\*)

The casual relationships had a p-value less than 0.05, indicating 95% or higher level of confidence. The estimates ranged from 0.214 to 0.513. *Parental financial communication*

had a significant positive linear relationship to *Financial decision-making*; its contribution was 0.214, with a significant *p*-value of 0.005. This meant that an increase in the value of *Parental financial communication* led to an increase in *Financial decision-making*. It was observed that *Parental SES (Parental income)* made the largest contribution to *Financial decision-making* (0.363, or approximately 36%). Table 7.123 indicates the squared multiple regression correlations of the Financial Decision-making Model.

**Table 7.123: Squared multiple regression correlations of the Financial Decision-making Model: Group 1 (Default model)**

	<b>Estimate</b>
<i>Financial decision-making</i>	0.442

Source: AMOS

The independent variables explained 44% ( $R^2 = 0.442$ ) of the Financial Decision-making Model. The  $R^2$  of Financial Decision-making Model represented large practical effect size, which meant the model was valid, reliable, and acceptable (Hair et al., 2014).

#### **7.9.4.2 The Financial decision-making Model goodness-of-fit indices**

The results of the goodness-of-fit indices of the Financial Decision-making Model are shown in Table 7.124.

**Table 7.124: Financial Decision-making Model goodness-of-fit indices**

<b>Index</b>	<b>Recommended value</b>	<b>Actual value</b>	<b>Remark</b>
CMIN	< 0.05	0.000	Very good
GFI	≥ 0.95 (generally not recommended)	1.000	Very good
CFI	≤ 1 (values close to 1 indicate a very good fit)	1.000	Very good
RMSEA	< 0.08	0.365	Insignificant, poor model fit
SRMR	< 0.08	0.032	Good
NFI	≤ 1 (values close to 1 indicate a very good fit)	0.934	Good
TLI	≤ 1 (values close to 1 indicate a very good fit)	1.000	Very good

Source: AMOS

As indicated in Table 7.124, the goodness-of-fit indices showed a good fit between the data and the Financial Decision-making Model. Almost all the goodness-of-fit indices

confirmed that the data fit the model significantly (CMIN = 0.000; GFI = 1.000; CFI = 1.000; SRMR = 0.032; NFI = 0.934; TLI = 1.000). Only the RMSEA (0.365) indicated a poor model fit. However, as the majority of the indices confirmed a good model fit, the results of the RMSEA were rejected. Therefore, it was concluded that the Financial Decision-making Model fit the data being tested, and that it was valid, reliable, and acceptable (Hair et al., 2014).

## **7.10 SUMMARY**

This chapter presented the empirical results of the study, together with discussions of the research hypotheses, the results of the pilot study, the demographic results, data validity and reliability, descriptive results, hypotheses testing, and the results of the SEM.

The demographic results showed that the majority of respondents were from Fetakgomo Tubatse, and were single women aged 18 to 20 years. The results showed that female parents are more likely to talk about money. Most respondents' parents earned less than R5 000, held a matric, and were general workers. The descriptive results indicated that most respondents agreed to statements relating to culture, that their parents followed an authoritarian parenting style, and that their parents monitored their finances. Most respondents scored high on *Financial decision-making* compared to *Financial knowledge*, *Financial behaviour*, and *Financial attitude*.

Ten hypotheses were tested, and it was found that young black African adults are not financially literate. However, they are financially socialised by their parents. It was also found that there is a significant difference in parental financial socialisation across parental SES. There is no significant difference in parental financial socialisation across the child's gender. There is a significant difference in parental financial socialisation across parental gender. There is a significant negative relationship between culture and parental financial socialisation, and a significant positive relationship between parenting style and parental financial socialisation. Furthermore, it was found that there is a significant positive relationship between parental financial socialisation and financial literacy. This is moderated by social structural factors (parental SES). The relationship

between parental financial socialisation and financial literacy is, however, not moderated by individual factors (child's gender and parental gender).

Lastly this chapter discussed the results of SEM. SEM indicated four models with which to construct a parental financial socialisation model for young black African adults in South Africa. This was because the EFA divided the dependent variable, *Financial literacy*, into four factors, namely *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*. The next chapter presents a discussion of the results.

## CHAPTER 8

### DISCUSSION OF RESULTS

#### 8.1 INTRODUCTION

The previous chapter presented the results of the study. This chapter discusses the results of the study in 13 sections. Section 8.2 discusses the demographic results of the study. Section 8.3 reports the descriptive results, and Section 8.4 focuses on young black African adults and financial literacy. Section 8.5 deals with young black African adults and parental financial socialisation. Section 8.6 discusses parental financial socialisation and parental SES. Section 8.7 discusses parental financial socialisation and child gender, and Section 8.8 covers parental financial socialisation and parental gender. Section 8.9 covers culture and parental financial socialisation, and Section 8.10 discusses parenting styles and parental financial socialisation. Section 8.11 deals with parental financial socialisation and financial literacy. Section 8.12 covers parental financial socialisation, financial literacy, and social structural factors. Section 8.13 focuses on parental financial socialisation, financial literacy, and individual factors. Lastly, Section 8.14 presents a summary of the chapter.

#### 8.2 DEMOGRAPHIC RESULTS

Demographic data, which were personal and parental data, were analysed and summarised using frequencies and percentages. The results showed that the majority of the respondents were from Fetakgomo Tubatse municipality (60%). This was in line with this study's desired sample, as Fetakgomo Tubatse had a largest calculated sample size based on the population. The respondents in this study were mostly women (66.7%). This is in line with the gender distribution of Fetakgomo Tubatse and Intsika Yethu local municipalities (StatsSA, 2018). The following categories had the highest representation: age category 18–20 years (28.2%), single (28.8%), and living with a partner (25.2%). This supports the results of StatsSA (2018) that there is an increase in a co-habiting relationship amongst young adults. Most respondents' parents earn *Less than R5 000* (32.2%). This is in line with the categorisation of Fetakgomo Tubatse and Intsika Yethu

as low-income areas. With regard to education, most respondents indicated that their parents hold Grade 12 (28.0%), and a high number indicated that their parents do not hold Grade 12 (23.3%). With regard to occupation, most respondents indicated that their parents are general workers (12.5%) or self-employed (12.3%). A high number of respondents indicated that their parents are unemployed (11.0%). This is aligned to result that most respondents' parents earn less than R5 000. It also confirms South Africa's high unemployment rate (StatsSA, 2022).

### **8.3 DESCRIPTIVE RESULTS**

Descriptive statistics was used to describe and summarise the data, to provide insight into to the components of culture, parenting styles, parental financial socialisation, and financial literacy. This section discusses these components in detail.

#### **8.3.1 Culture**

The respondents scored a mean of 3.6 (SD = 1.4) for *Culture*. Most respondents (50.6%) agreed that their parents upheld cultural values; taught them about tradition, heritage, and cultural values; and participated in cultural activities specific to their family. A high number of respondents (44.1%) disagreed with the statements relating to culture and their parents discussing issues pertaining to culture. Therefore, based on the results, it is clear that parents in Fetakgomo Tubatse and Intsika Yethu embrace their culture and teach their children cultural values. These results are not surprising, as most people in rural and low-income areas still value their culture and feel it is important to pass cultural values and beliefs on to the next generation.

#### **8.3.2 Parenting Style**

The majority of respondents (53.2%) agreed that their parents used an authoritarian style to parent them while growing up. *Neglectful style* had a Cronbach  $\alpha$  of 0.645, and respondents scored a mean of 3.8 (SD = 1.3), with most respondents (48.3%) agreeing that their parents were neglectful. *Authoritative style* had a Cronbach  $\alpha$  of 0.932, and respondents scored a mean of 3.1 (SD = 1.2), with most (47.7%) agreeing that their

parents were authoritative. *Permissive style* had a Cronbach  $\alpha$  of 0.906, and respondents scored a mean of 2.8 (SD = 1.4), with most respondents (50.5%) agreeing that their parents were permissive. Based on the overall results, most parents (53.2%) used an authoritarian parenting style in raising their children. Thus, the parents were strict, used physical punishment to discipline their children, did not allow their children to air their views in family matters, and applied a rigid rule that their decisions were final and that there would be no negotiation with children. These results are not surprising, as parents were also found to uphold cultural values and beliefs. Thus, there is a direct link between strict parents and those who participate in cultural activities and uphold cultural values.

### **8.3.3 Parental Financial Socialisation**

*Parental financial behaviour* had a Cronbach  $\alpha$  of 0.946, and respondents scored a mean of 3.3 (SD = 1.2), with the majority of respondents (54.9%) agreeing that their parents displayed good financial behaviour. *Parental financial monitoring* had a Cronbach  $\alpha$  of 0.860, and respondents scored a mean of 3.2 (SD = 1.1), with the majority of respondents (57.8%) agreeing that their parents monitored their finances and spending. *Parental financial discussions* had a Cronbach  $\alpha$  of 0.923, and respondents scored a mean of 3.1 (SD = 1.2), with most respondents (49.9%) agreeing that their parents discussed financial matters with them.

*Parental financial communication* had a Cronbach  $\alpha$  of 0.945, and respondents scored a mean of 2.9 (SD = 1.3), with most respondents (46.1%) disagreeing that their parents spoke to them about family finances and the family's spending plan. *Parental financial teaching* had a Cronbach  $\alpha$  of 0.909, and respondents scored a mean of 3.0 (SD = 1.2), with the majority of respondents (56.9%) agreeing that their parents taught them about finances. Therefore, based on the overall results, the score on *Parental financial monitoring* (57.8%) was high compared to other components of *Parental financial socialisation*, namely *Parental financial behaviour*, *Parental financial discussions*, *Parental financial communication*, and *Parental financial teaching*. Thus, parents in Fetakgomo Tubatse and Intsika Yethu monitored their children's finances when they were growing up. These results are not surprising, as parents in this study were found to uphold

culture and were authoritarian; therefore, it was to be expected that the parents would be more likely to monitor their children's finances than any other component of parental financial socialisation.

### **8.3.4 Financial Literacy**

*Financial knowledge* had a Cronbach  $\alpha$  of 0.934, and respondents scored a mean of 3.2 (SD = 1.1), with most respondents (50.9%) agreeing that they were knowledgeable about financial matters. *Financial behaviour* had a Cronbach  $\alpha$  of 0.940, and respondents scored a mean of 3.0 (SD = 1.2), with most respondents (46.4%) agreeing with the statements regarding healthy financial behaviours. *Financial attitude* had a Cronbach  $\alpha$  of 0.903, and respondents scored a mean of 3.1 (SD = 1.0), with most respondents (48.3%) agreeing with the statements regarding having a good and positive financial attitude. *Financial decision-making* had a Cronbach  $\alpha$  of 0.826, and respondents scored a mean of 3.8 (SD = 0.9), with the majority of respondents (51.7%) agreeing that they practised good financial decision-making. Respondents scored higher (51.7%) on financial decision-making than on the other components of *financial literacy*, namely, *Financial knowledge*, *Financial behaviour*, and *Financial attitude*. Thus, young black African adults in Fetakgomo Tubatse and Intsika Yethu are likely to make sound financial decisions.

## **8.4 YOUNG BLACK AFRICAN ADULTS AND FINANCIAL LITERACY**

Research Objective 1 was to determine the level of financial literacy amongst young black African adults. In line with this objective, H1 stated: Young black African adults are financially literate. The results showed that the level of financial literacy of the respondents was low (49.3%). Thus, H1 was rejected. This result is consistent with that of other studies that found low levels of financial literacy amongst young adults (Lusardi et al., 2010; Lusardi & Mitchell, 2011; Cameron et al., 2013; Flores, 2014; Breitbach & Walstad, 2016; Arceo-Gomez & Villagomez, 2017). Lusardi and Mitchell (2011) found that, globally, individuals in low-income areas have a low level of financial literacy. However, the present study's result contradicts Nomlala (2019), who found that young adults (students) are financially capable, with a score of 89.5%. Similarly, Antoni and

Saayman (2021) found that young professionals showed above average (61% to 80%) financial literacy levels. Other studies found medium and high levels of financial literacy (Lahav et al., 2017; Ergum, 2018; Putri & Wijaya, 2020). Buckland (2010) showed that many low-income Canadian adults were financially literate. The possible reasons why this study's results differs with other studies is that the current study focused on young black African adults in rural and low-income areas, while other studies focused on young professionals and students from all races. Thus, studies in financial literacy have produced mixed and contradictory results, and there is a need to probe financial literacy further, especially in developing countries.

## **8.5 YOUNG BLACK AFRICAN ADULTS AND PARENTAL FINANCIAL SOCIALISATION**

Research Objective 2 was to examine parental financial socialisation by black African parents of young black African adults. In line with this objective, H2 stated: Young black African adults are financially socialised by their parents. The results showed that young black African adults are indeed financially socialised by their parents. Thus, H2 was accepted. This result is consistent with that of other studies that found that young adults are financially socialised by their parents (Gudmunson & Danes, 2011; Palaci et al., 2017; Fan & Chatterjee, 2019; Rea et al., 2019; Kim & Torquati, 2019; Sirsch, Zupancic, Poredos, Levec & Friedlmeier, 2020; Zhao & Zhang, 2020; Utkarsh et al., 2020; Li et al., 2021). For example, Gudmunson and Danes (2011) found that parents teach their adolescent children about financial matters by sharing their own knowledge, financial choices, and financial norms. Similarly, Rea et al. (2019) found that parents financially socialise their children by directly teaching them objective financial knowledge and by consciously and subconsciously sharing their financial norms and expectations. Kim and Torquati (2019) found that parents financially socialise their children by openly discussing financial matters with them children and allowing their input. Sirsch et al. (2020) indicate that parental teaching about financial matters leads to financial learning outcomes and self-perceptions of greater financial knowledge. Thus, financial socialisation by parents leads to healthy financial outcomes in young adults, which underpins the importance of parental involvement in financial socialisation.

However, this study result differs from that of other studies (Nomlala, 2019; Legenzova, Gaigaliene & Lecke, 2019). Nomlala (2019) found that students are not financially socialised by financial socialisation agents. Similarly, Legenzova et al. (2019) indicate that parents are not the major source of financial information for their children. Therefore, studies in parental financial socialisation seem to produce mixed results. However, there seems to be consensus in financial socialisation literature that parents play an important role in socialising their children financially, and that they contribute to their children's financial well-being in adulthood.

## **8.6 PARENTAL FINANCIAL SOCIALISATION AND PARENTAL SOCIOECONOMIC STATUS**

Research Objective 3 was to determine differences in parental financial socialisation according to parental SES. In line with this objective, H3 stated: There is a significant difference in parental financial socialisation across parental SES. Parental SES was measured through parental income level and parental level of educational.

The results showed that there is a statistically significant difference in parental financial socialisation across parental income levles. This result is consistent with results of other studies in this domain (Serido et al., 2010; Jorgensen & Salva, 2010; Gudmunson & Danes, 2011; Kim & Chatterjee, 2013; Serido et al., 2020; Sirsch et al., 2020). For example, Sirsch et al. (2020) found that young adults from a wealthier family background reported greater satisfaction with their own money management abilities, perhaps because they can more easily obtain money for unexpected expenditures from their parents. They are more financially socialised than those from poorer family backgrounds, as parents with a high income tend to financially socialise their children more than parents with a low income.

The results further showed that there is a statistically significant difference in parental financial socialisation across parental level of education. This result is consistent with those of other studies (Shim et al., 2010; Van Campenhout, 2015; Shim et al., 2015; Serido & Deenanath, 2016; Engels, Kumar & Philip, 2020; Zhao & Zhang, 2020; Nomlala, 2021). For example, Engels et al. (2020) indicated that parents' education has a strong

correlation with their financial knowledge and influences the quality of their parental financial socialisation. Similarly, Zhao and Zhang (2020) found that parents' education has a positive impact on parental financial socialisation. Thus, parents with a higher level of education are more likely than those with a lower level of education to engage in financial socialisation of their children.

As the overall results indicated that there is a significant difference in parental financial socialisation across parental SES, H3 was accepted. These results are consistent with other studies that established a significant difference in parental financial socialisation across parent SES (Serido et al., 2010; Jorgensen & Salva, 2010; Shim et al., 2010; Gudmunson & Danes, 2011; Kim & Chatterjee, 2013; Van Campenhout, 2015; Shim et al., 2015; Serido & Deenanath, 2016; Serido et al., 2020; Nomlala, 2021).

#### **8.7 PARENTAL FINANCIAL SOCIALISATION AND CHILD'S GENDER**

Research Objective 4 was to determine differences in parental financial socialisation according to gender of the child. In line with this objective, H4 stated: There is a significant difference in parental financial socialisation according to the child's gender. The results indicated that there is no significant difference in parental financial socialisation according to the child's gender. Thus, H4 was rejected. This result differs with from the results of other studies in this regard (Garrison & Gutter, 2010; Agnew, 2015; Agnew et al., 2018; Ameer & Khan, 2020; Serido et al., 2020). Garrison and Gutter (2010) found that sons receive more and better financial parenting from their parents. A recent study by Ameer and Khan (2020) reported that adult men and women had had different financial socialisation experiences. However, Serido et al. (2020) found that implicit financial parenting is higher for women than for men. The research in this domain has thus produced mixed results.

#### **8.8 PARENTAL FINANCIAL SOCIALISATION AND PARENTAL GENDER**

Research Objective 5 was to determine the differences in parental financial socialisation according to parental gender. In line with this objective, H5 stated: There is a significant difference in parental financial socialisation according to parental gender. The results

showed that there is indeed a significant difference in parental financial socialisation according to the parent's gender. Thus, H5 was accepted. The results indicated that female parents are more likely than male parents to engage in financial socialisation of their children. This result is consistent with those of other studies on this topic (Neeley, 2005; Minahan & Huddleston, 2010). For instance, Neeley (2005) found that mothers play an active role in financially socialising their children, while Minahan and Huddleston (2010) found that mothers are the most influential consumer socialisation agent. These results are interesting, as women have been found to display lower levels of financial literacy than men (Bucher-Koenen et al., 2017). The question is thus whether female parents are teaching their children incorrect financial information. Sherraden (2013) argues that, if parents lack financial knowledge or experience, they not only cannot effectively teach or model behaviours for their children but may even teach or model detrimental financial behaviours. Therefore, the results of this study showed that female parents are more likely to discuss financial issues with their children than male parents, then they must have the relevant financial knowledge and demonstrate good financial behaviours so that they may influence effectively financial literacy and financial well-being of their children.

## **8.9 CULTURE AND PARENTAL FINANCIAL SOCIALISATION**

Research Objective 6 was to determine the relationship between culture and parental financial socialisation of young black African adults. In line with this objective, H6 stated: There is a significant positive relationship between culture and parental financial socialisation. The results indicated that there is no significant positive relationship between culture and parental financial socialisation. Thus, H6 was rejected. Moreover, the results showed that there is a significant negative relationship between culture and parental financial socialisation. The statistical results showed that, as *Culture* increased, *Parental financial socialisation* decreased. These results are aligned with the view that parents who uphold cultural norms and values are less likely to participate in parental financial socialisation. Parents who participate in cultural activities, especially in rural and low-income areas, hold the belief that money matters should not be discussed with children; it is a cultural taboo. Moreover, culture impacts the meaning attributed to money

and the understanding of financial concepts (Beutler & Dickson, 2008). The results of this study differ from those of studies (Koonce, Mimura, Mauldin, Rupured & Jordan, 2008; Fang, Hannah & Chatterjee, 2013) that found that ethnicity influences financial socialisation.

#### **8.10 PARENTING STYLE AND PARENTAL FINANCIAL SOCIALISATION**

Research Objective 7 was to determine the relationship between parenting style (authoritarian, neglectful, authoritative, and permissive) and parental financial socialisation of young black African adults. In line with this objective, H7 stated: There is a significant positive relationship between parenting style and parental financial socialisation. The results indicated that there is indeed a significant positive relationship between parenting style and parental financial socialisation. Thus, H7 was accepted. This result supports those of other studies that examined this relationship (Koonce et al., 2008; Serido et al., 2010; Fang et al., 2013; Wisenblit, Priluck & Pirog, 2013; Serido & Deenanath, 2016). For example, Wisenblit et al. (2013) investigated the influence of parental styles on children's consumption, and also compared the different parenting styles. They found that nurturing mothers are more aware of advertising aimed at children, and that they talk more to their children about advertising and consumption than authoritarian mothers.

#### **8.11 PARENTAL FINANCIAL SOCIALISATION AND FINANCIAL LITERACY**

Research Objective 8 was to establish the relationship between parental financial socialisation of young black African adults and their financial literacy. In line with this objective, H8 stated: There is a significant positive relationship between parental financial socialisation and financial literacy. To test this hypothesis, financial literacy was measured through *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and *Financial decision-making*.

The results revealed that there is a significant positive relationship between parental financial socialisation and financial knowledge. This result is consistent with results of other studies on the relationship (Jorgensen, 2007; Shim et al., 2009). For example,

Jorgensen (2007) concluded that students who achieve higher scores on financial knowledge are influenced by their parents. Similarly, Shim et al. (2009) found that financial discussions with parents around budgeting and savings are positively correlated with greater financial knowledge in students.

The present study's results showed that there is a significant positive relationship between parental financial socialisation and financial behaviour. This result is consistent with results of other studies (Solheim et al., 2011; Webley & Nyhus, 2013; Buccioli & Veronesi, 2014; Tang et al., 2015; Jorgensen et al., 2017; Agnew, 2018; Zhu, 2018; LeBaron et al., 2020). Tang et al. (2015) argue that parental influence is a key determinant of positive financial behaviours. Similarly, Zhu (2018) found that parental financial socialisation influences adolescents' financial behaviour. LeBaron et al. (2020) suggest that financial education by parents during childhood is linked with a greater frequency of healthy financial behaviours in emerging adulthood.

With regard to financial attitude, the results showed that it has a significant positive relationship with parental financial socialisation. The results of this study are consistent with those of some other studies (Jorgensen, 2007; Norvilitis & MacLean, 2010; Serido et al., 2015; LeBaron et al., 2018; Kim & Torquati, 2019). For example, Norvilitis and MacLean (2010) found that young adults' financial attitudes are shaped by parental financial monitoring. Similarly, LeBaron et al. (2018) concluded that emerging adults learn financial attitudes from their parents.

With regard to financial decision-making, the results showed that there is no significant positive relationship with parental financial socialisation. This result is inconsistent with those of Webley and Nyhus (2013), who reported that parental financial monitoring fosters children's early financial independence. It teaches them to make their own decisions, which leads to experience in making financial decisions.

Therefore, H8 was accepted. This is in line with other studies (Akben-Selcuk & Altioek-Yimaz, 2014; Grohmann et al., 2015; Zhao & Zhang, 2020; Utkarsh et al., 2020; Li et al., 2021; Antoni & Saayman, 2021). For example, Utkarsh et al. (2020) found that financial socialisation by parents positively influences the financial well-being of young adults. Antoni and Saayman (2021) concluded that parental financial teaching has an influence

on the financial literacy of young professionals. However, these results are inconsistent with those of some studies (Sohn et al., 2012; Kaur et al., 2015; Albeerdy & Gharleghi, 2015; Mahapatra et al., 2016; Ameer & Khan, 2020; Putri & Wijaya, 2020). For example, Mahapatra et al. (2016) concluded that parental financial discussions have a negative effect on financial literacy. Ameer and Khan (2020) found that financial socialisation is not associated with higher financial literacy, and Putri and Wijaya (2020) found that parental financial socialisation does not significantly influence students' financial literacy.

## **8.12 PARENTAL FINANCIAL SOCIALISATION, FINANCIAL LITERACY, AND SOCIAL STRUCTURAL FACTORS**

Research Objective 9 was to determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by social structural factors. In line with this objective, H9 stated: The relationship between parental financial socialisation and financial literacy is moderated by social structural factors. *Social structural* factors, namely *Parental SES*, were the precursor variables that referred to the social environment within which a person's learning takes place (Moschis, 1978). Parental SES specifically focused on parental income, as it has been found that parents on different income levels are likely to teach their children differently about money (Batten, 2015). In the present study, it was hypothesised that parental SES moderates the relationship between parental financial socialisation and children's financial literacy. The results indicated that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors, including parental SES, specifically parental income. Therefore, H9 was accepted.

These results are in line with those of Kamaruddin and Mokhlis (2003), who found a significant relationship between social structural factors and financial socialisation. However, Kamaruddin and Mokhlis (2003) did not investigate whether social structural factors moderate the relationship between parental financial socialisation and financial literacy. The present study is amongst the first to investigate whether the relationship

between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES).

### **8.13 PARENTAL FINANCIAL SOCIALISATION, FINANCIAL LITERACY, AND INDIVIDUAL FACTORS**

Research Objective 10 was to determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by individual factors. In line with this objective, H10 stated: The relationship between parental financial socialisation and financial literacy is moderated by individual factors. This study measured individual factors through the child's gender and parental gender, as these factors influence how parents communicate financial matters with their children (Allen, 2008). The present study hypothesised that individual factors moderate the relationship between parental financial socialisation and financial literacy. The results indicated that the relationship between parental financial socialisation and financial literacy is not moderated by individual factors (child's gender and parental gender). Thus, H10 was rejected. This study is amongst the first to investigate whether the relationship between parental financial socialisation and financial literacy is moderated by individual factors (child's gender and parental gender).

### **8.14 SUMMARY**

This chapter presented a discussion of the results of the study. The following were discussed: demographic results, descriptive results, and the results on the relationships between the variables under study (young black African adults' financial literacy, parental financial socialisation, parental SES, the child's gender, parental gender, culture, parenting style, social structural factors, and individual factors).

Demographic results revealed that majority of respondents were from Fetakgomo Tubatse, female, between the ages of 18 to 20 years, and were single. However, there was a high number of respondents who were co-habiting. Female parents were more likely to talk about money. It was not surprising to find that most parents earn less than R 5 000 because Fetakgomo Tubatse and Intsika Yethu are low-income areas. Descriptive

results showed that most parents uphold cultural values and beliefs, used authoritarian parenting style to parent their children and monitored their children's finances more than any other component of parental financial socialisation. In terms of financial literacy, respondents were found to do better on financial decision-making. The results of young black African adults and financial literacy was consistent with those studies that found low levels of financial literacy among young adults. However, it was also inconsistent with those that found medium to high levels of financial literacy. The results of young black African adults and parental financial socialisation were consistent with those that found that young adults are financially socialised by their parents. Parental financial socialisation and parent SES results pointed to a significant difference on parental financial socialisation across parent SES which was consistent with other studies. Parental financial socialisation and child gender results pointed that there is no significant difference on parental financial socialisation across child's gender which was inconsistent with the results of other studies. Parental financial socialisation and parental gender results showed that female parents were more likely to engage in parental financial socialisation than male parents. In terms of culture and parental financial socialisation the results differ with other studies as it was found that no significant positive relationship between culture and parental financial socialisation. The results of parenting styles and parental financial socialisation support those of other studies. Parental financial socialisation and financial literacy results were consistent with those studies that found a relationship between parental financial socialisation and financial literacy and also inconsistent with those studies than found otherwise. Lastly, this study is among the first to determine that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES) and individual factors (child's gender and parental gender). The next chapter present the summary, conclusion and recommendations.

## CHAPTER 9

### SUMMARY, CONCLUSION, AND RECOMMENDATIONS

#### 9.1 INTRODUCTION

The previous chapter discussed the results of the study. This chapter is the last chapter of this research report, and presents the summary, conclusions, and recommendations. This chapter comprises seven sections. Section 9.2 presents a summary of Chapters 1 to 8. Section 9.3 provides a reconciliation of the research objectives (the primary objective and 11 secondary objectives), and Section 9.4 discusses the contribution of the study to the body of existing knowledge. Section 9.5 highlights the limitations of the study, while Section 9.6 presents the recommendations for policymakers and stakeholders. Section 9.7 makes suggestions for further research in the field of financial socialisation, and Section 9.8 concludes the thesis.

#### 9.2 SUMMARY OF THE CHAPTERS

**Chapter 1** presented the introduction and background of the study, which showed that young black African adults are struggling to manage their finances and continue to be financially vulnerable. They are also experiencing increasing difficulties in becoming financially independent. The problem statement highlighted the persistent low levels of financial literacy of young black African adults in rural and low-income areas. This chapter also presented the objectives of the study. The primary objective was to determine the influence of parental financial socialisation on young black African adults' financial literacy in rural and low-income areas in South Africa. The secondary objectives of the study were also presented, together with the research hypotheses, the significance of the study, definitions of key concepts, and an overview of the chapters.

**Chapter 2** provided an overview of the theories of financial socialisation and financial literacy that underpinned this study. The theories of socialisation were social learning, observational learning, cognitive development, sociocultural theory, and social cognitive theory. The advantages and disadvantages of each theory were also discussed. Thereafter, theories of financial socialisation, namely consumer behaviour, consumer

socialisation, financial socialisation, and the Family Financial Socialisation Model, were discussed. The Family Financial Socialisation Model of Gudmunson and Danes (2011) was selected as the most appropriate model to explain parental financial socialisation and was used to develop the conceptual model for this study, which was presented in Chapter 5. This was followed by a discussion of theories of financial literacy, which were classified into traditional finance theories and behavioural finance theories. Traditional finance theories included the efficient market hypothesis, expected utility, modern portfolio, permanent income hypothesis, and the life-cycle hypothesis. Behavioural finance theories included bounded rationality, prospect theory, and the theory of planned behaviour.

**Chapter 3** presented an overview of parenting, young adulthood, and parental financial socialisation. This chapter provided the definition of a parent, which was adapted from the Children's Act 38 Of 2005 which defines a parent as anyone taking care of the child. This was followed by a discussion on parenting, with the focus on parenting in black African households and the parenting of young black African adults in South Africa. It was found that parenting in black African households is broad and not limited to biological parents. Parenting may be done by any family- or community member who takes up the role of caring for the child, sometimes without following the legal adoption process.

Thereafter, parental roles were discussed, and it was indicated that the main aim of parents must be to be child centred. They must take care of the biological needs of their children, provide an optimal environment, protect their children, teach and educate them, provide guidance, direction, and assistance, and help where necessary. Furthermore, young adulthood was elaborated on; it was identified as a crucial phase in human development, as it is in this phase that young people start to live independently from their parents, gain employment, enter into contractual obligations, get their first credit card, and/or take on a student loan.

This chapter also presented the concept of parental financial socialisation and its components, namely parental financial teaching, parental financial discussions, parental financial communication, parental financial modelling, and parental financial monitoring, as well as the factors that influence parental financial socialisation. The discussion further

presented earlier empirical studies on parental financial socialisation conducted in Western countries, Africa, and South Africa.

**Chapter 4** provided an overview of, and empirical evidence from studies on, financial literacy. This chapter also provided the conceptual and operational definition of financial literacy used in the present study. The discussion of the conceptual definition showed that financial literacy has been defined differently in studies, and that the term is often used interchangeably with *financial knowledge*, *financial education*, and *financial capability*. The operational definition focused on how financial literacy was measured in the study, as studies in this domain have measured financial literacy differently. This was followed by a discussion of the dimensions of financial literacy. The present researcher adopted the dimensions proposed by the OECD (2011), namely financial knowledge, financial attitude, and financial behaviour, but extended the dimensions by including financial decision-making, as it has been found that financial decision-making is crucial in achieving financial security and well-being. Thereafter, the interrelations between financial knowledge, financial attitude, financial behaviour, and financial decision-making were presented.

This chapter also discussed empirical studies on financial literacy conducted around the world and in South Africa. These studies found that young black adults in developing countries demonstrate lower levels of financial literacy compared to those in developed countries. Moreover, young black African adults in rural and low-income area suffer worse financial illiteracy. The chapter concluded with a discussion of the importance of financial literacy.

**Chapter 5** focused on the conceptual framework of the study. This chapter presented the *Parental financial socialisation* process and the variables *Parental financial socialisation*, *Social structural factors*, *Individual factors*, and *Financial literacy*. The *Parental financial socialisation* variables were operationalised as *Parental financial teaching*, *Parental financial monitoring*, *Parental financial modelling*, and *Parental financial discussions*. The *Social structural factors* were: *Parental SES*, *Culture*, and *Parenting style*. The *Individual factors* variables were *Child's gender* and *Parental gender*. The *Financial literacy* variables were: *Financial knowledge*, *Financial behaviour*, *Financial attitude*, and

*Financial decision-making*. This was followed by the depicting of the conceptual model that was developed from the parental financial socialisation process and the Family Financial Socialisation Model. Thereafter, the conceptual model's variables were discussed, which discussion included the definition and measurements.

**Chapter 6** presented the research methodology used to conduct the study. The chapter discussed the positivist research philosophy of the study, which was appropriate because the study was concerned with the social reality of parental financial socialisation and financial literacy. This was followed by a discussion of the study's quantitative research approach and the research design, which was non-experimental, specifically the survey design. This was followed by information on the study area where the data were collected, i.e., Fetakgomo Tubatse and Intsika Yethu municipalities in Limpopo and Eastern Cape respectively. This chapter also discussed the sampling of young black African adults, including the population, sample size, sampling methods, and sampling procedure. It was explained that the sampling procedure included cluster sampling, then random sampling, and then stratified sampling. Thereafter, the data-collection instrument and procedure were presented, followed by a description of the methods used to analyse the data. The chapter concluded with the study's methodological limitations and the applicable ethical considerations.

**Chapter 7** reported the empirical results of the study, in line with the research hypotheses. The chapter included the results of the pilot study, noted the response rate 73.53% in the main study, and reported the demographic results. The chapter also provided the results of the EFA and Cronbach  $\alpha$ , which showed that questionnaires were dependable, consistent, and that the items measured what they were intended to measure. Thereafter, the descriptive results for *Culture*, *Parenting style*, *Parental financial socialisation*, and *Financial literacy* were provided. The study found that respondents' parents upheld cultural values and beliefs, followed an authoritarian parenting style, and monitored their children's finances. Furthermore, the study found that the respondents, young black African adults, scored high on *Financial decision-making*. This was followed by a report on the testing of the main and sub-hypotheses of the study. The chapter also presented the SEM results, which provided four models to explain parental financial socialisation.

**Chapter 8** presented a discussion of results of the study. This chapter discussed the demographic results, which indicated that the respondent profile was in line with that of the study population. Thereafter, the descriptive results were discussed. This was followed by a discussion of young black African adults' financial literacy, in which it was indicated that the results of the study were consistent with those of other studies that found low levels of financial literacy amongst young adults. The discussion further indicated that studies of parental financial socialisation have produced mixed results; however, there is general consensus that parents play a critical role in children's financial socialisation. This chapter also discussed parental financial socialisation and parental SES, and it was indicated that the present study's results are consistent with those of other studies in this regard. This was followed by a discussion of parental financial socialisation with regard to the child's and the parent's gender, culture and parental financial socialisation, and parenting style and parental financial socialisation. Thereafter, parental financial socialisation and financial literacy were discussed, and it was indicated that the present study's results are consistent with those of other studies that established a significant positive relationship between parental financial socialisation and financial literacy. Furthermore, parental financial socialisation, financial literacy, social structural factors, and individual factors were discussed, and it was highlighted that this study is amongst the first to determine that the relationship between parental financial socialisation and financial literacy as moderated by social structural factors and individual factors.

### **9.3 CONCLUSIONS OF RESEARCH OBJECTIVES**

The primary objective of this study was to determine the influence of parental financial socialisation on young black African adults' financial literacy in rural and low-income areas in South Africa. Overall, the results showed that parental financial socialisation does indeed influence the financial literacy of young black African adults in rural and low-income areas in South Africa.

The study's secondary objectives are discussed below.

### **SRO1: To determine the level of financial literacy amongst young black African adults**

The first secondary objective of this study was to determine the overall level of financial literacy of young black African adults. This was done by investigating financial literacy through the domains of financial knowledge, financial behaviour, financial attitude, and financial decision-making. The results indicated the level of *Financial literacy* in terms of *Financial knowledge* (50.9%), *Financial behaviour* (46.4%), *Financial attitude* (48.3%), and *Financial decision-making* (51.7%). Young black African adults' level of financial literacy was found to be moderate in terms of financial knowledge and financial decision-making, but low in terms of financial behaviour and financial attitude. Furthermore, young black African adults performed well with regard to *Financial decision-making*. The overall level of *Financial literacy* amongst young black African adults was 49.3%, which is low. These results are consistent with those of other such studies, as discussed in detail in Chapter 8. Lusardi and Mitchell (2011) found that, globally, individuals in low-income areas have a low level of financial literacy. However, the results are inconsistent with those of other studies in this domain; for example, Buckland (2010) found that many low-income Canadian are financially literate.

### **SRO2: To examine parental financial socialisation by black African parents of young black African adults**

The second secondary objective of this study was to examine the parental financial socialisation by black African parents of young black African adults. This was done by determining the scores for the components of *Parental financial socialisation*, namely *Parental financial behaviour* (54.9%), *Parental financial monitoring* (57.8%), *Parental financial discussions* (49.9%), *Parental financial communication* (45.7%), and *Parental financial teaching* (56.9%). The results showed that the young black African adults under study indicated that their parents practised monitoring of their finances more than the other components of *Parental financial socialisation*. The overall score of *Parental financial socialisation* was 53%, which is moderate. Previous studies have also found that parents socialise their children financially, particularly by openly discussing financial

matters with their children (Zhao & Zhang, 2020; Utkarsh et al., 2020; Li et al., 2021). However, these results are not in line with those of studies (Nomlala, 2019; Legenzova et al., 2019) that found that children are not financially socialised by their parents.

**SRO3: To determine differences in parental financial socialisation according to parental SES, i.e., parental income level and parental level of education**

The third secondary objective of this study was to determine the difference in parental financial socialisation according to parental SES. ANOVA was used to determine this difference. *Parental SES* was measured through *Parental income level and Parental level of education*. The results indicated that there is a significant difference in parental financial socialisation across parental SESs. Parents with a high income and higher education tend to financially socialise their children more than those with a low income and lower level of education. These results are in line with those of other studies (Shim et al., 2015; Serido & Deenanath, 2016; Serido et al., 2020; Nomlala, 2021) in which it was observed that there is difference in parental financial socialisation across parent SESs.

**SRO4: To determine differences in parental financial socialisation according to the gender of the child**

The fourth secondary objective of this study was to determine the difference in parental financial socialisation according to the child's gender. T-tests were used to determine this difference. The results indicated that there is no significant difference in parental financial socialisation according to the child's gender. These results differ from studies (Agnew et al., 2018; Ameer & Khan, 2020; Serido et al., 2020) that observed different parental financial socialisation according to the child's gender. Thus, this study does not support the notion that male children are more likely than female children to receive parental financial socialisation.

**SRO5: To determine differences in parental financial socialisation according to parental gender**

The fifth secondary objective of this study was to determine the difference in parental financial socialisation according to the gender of the parent. ANOVA was used to determine this difference. The results showed that there is a significant difference in *Parental financial socialisation across Parental gender*. It was found that female parents are more likely than male parents to engage in parental financial socialisation. This result is in line with those of other studies (Neeley, 2005; Minahan & Huddleston, 2010) that also found a significant difference.

**SRO6: To determine the relationship between culture and parental financial socialisation of young black African adults**

The sixth objective of this study was to determine the relationship between culture and parental financial socialisation of young black African adults. This was done through correlation analysis. The results indicated that there is no significant positive relationship between *Culture* and *Parental financial socialisation*. In fact, it was found that there is a significant negative relationship between *Culture* and *Parental financial socialisation*. Parents who uphold cultural values are less likely to engage in parental financial socialisation. These results differ from those of studies (Koonce et al., 2008; Fang et al., 2013) that observed a positive relationship between culture and parental financial socialisation.

**SRO7: To determine the relationship between parenting style (authoritarian, neglectful, authoritative, and permissive) and parental financial socialisation of young black African adults**

The seventh objective of this study was to determine the relationship between parenting style (authoritarian, neglectful, authoritative, and permissive) and parental financial socialisation. Correlation analysis was used to test this relationship. The results showed that there is a significant positive relationship between parenting style and parental financial socialisation. This result is in line with those of other studies (Fang et al., 2013;

Wisnblit et al., 2013; Serido & Deenanath, 2016) that found a significant positive relationship between parenting style and parental financial socialisation.

**SRO8: To establish the relationship between parental financial socialisation and the financial literacy of young black African adults**

The eighth objective of this study was to establish the relationship between parental financial socialisation and financial literacy of young black African adults. Multiple regression analysis was used to test this relationship. The results indicated a significant positive relationship between parental financial socialisation and financial literacy. This result is consistent with those of other studies (Zhao & Zhang, 2020; Utkarsh et al., 2020; Li et al., 2021; Antoni & Saayman, 2021) that found this relationship. However, the result is inconsistent with studies (Mahapatra et al., 2016; Ameer & Khan, 2020; Putri & Wijaya, 2020) that found that parental financial socialisation does not significantly influence young adults' financial literacy.

**SRO9: To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by social structural factors (parental SES)**

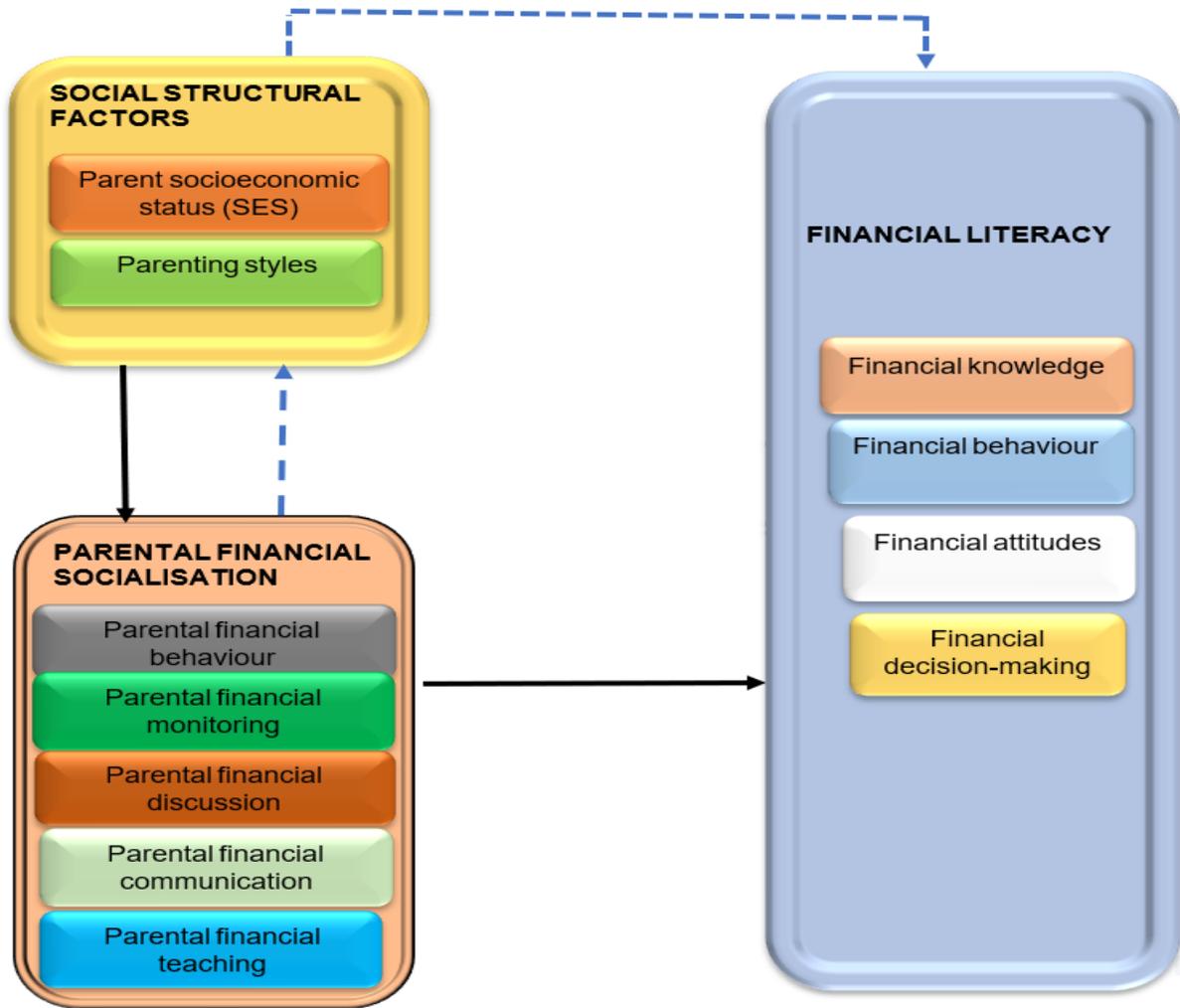
The ninth objective of this study was to determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by social structural factors (parental SES). Moderated regression analysis was used to test this relationship. The results indicated that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors. This in line with Kamaruddin and Mokhlis (2003) observing a significant relationship between social structural factors and financial socialisation. However, it must be noted that Kamaruddin and Mokhlis (2003) did not determine whether social structural factors moderate the relationship between parental financial socialisation and financial literacy. This study is amongst the first to investigate whether the relationship between parental financial socialisation and financial literacy is moderated by social structural factors.

**SRO10: To determine whether the relationship between parental financial socialisation of young black African adults and their financial literacy is moderated by individual factors (child's gender and parental gender)**

The tenth objective of this study was to determine whether the relationship between parental financial socialisation young black African and their financial literacy is moderated by individual factors, specifically the child's gender and parental gender. Moderated regression analysis was used to test this relationship. The results indicated that the relationship between parental financial socialisation and financial literacy is not moderated by these factors. This study is amongst the first to investigate whether the relationship between parental financial socialisation and financial literacy is moderated by the child's gender and the parent's gender.

**SRO11: To propose a parental financial socialisation model/framework to facilitate financial literacy of young black African adults**

The eleventh objective of this study was to propose a parental financial socialisation model to facilitate the financial literacy for young black African adults. SEM was used to develop the Parental Financial Socialisation Model. The results of the SEM indices showed that the model fit the data, and that it is valid, reliable, and acceptable. The Parental Financial Socialisation Model is a product of four models, namely the Financial Knowledge Model (Figure 7.41), the Financial Behaviour Model (Figure 7.42), the Financial Attitude Model (Figure 7.43), and the Financial Decision-making Model (Figure 7.44). Figure 9.45 depicts the proposed Parental Financial Socialisation Model/Framework.



**Figure 9.45: Proposed Parental Financial Socialisation Model/Framework**

The Parental Financial Socialisation Model/Framework consists of the dependent variable *Financial literacy*, the independent variable *Parental financial socialisation*, and the moderator/independent variable *Social structural factors*. The solid lines indicate causal relationships and the influences between independent variables, moderator variables, and the dependent variables. The dashed lines indicate the moderated relationship between independent variables, moderator variables and dependent variables. This model/framework indicates that financial literacy is predicted by parental financial socialisation, that social structural factors predict parental financial socialisation, and that social structural factors moderate the relationship between parental financial socialisation and financial literacy.

#### **9.4 CONTRIBUTION OF THE STUDY**

Empirical evidence of the influence of parental financial socialisation on financial literacy has been reported in the literature, but most of these studies were conducted outside of South Africa. Few studies have been conducted in South Africa on parental financial socialisation and its influence on the financial literacy of young adults. Studies in black rural and low-income area are even more scant. The only notable studies were conducted by Nomlala (2021), Antoni and Saayman (2021), Antoni, Rootman, and Struwig (2019), and Antoni (2018), and Sallie (2015). These studies focused on general financial socialisation of accounting students, young financial professionals, and students. Antoni et al. (2019) focused on only one dimension of financial literacy, namely financial behaviour. The current study makes a unique contribution to the body of knowledge through a study of the parental financial socialisation of young black African adults using four dimensions of financial literacy.

Antoni (2018) investigated the role of family structure and financial socialisation in influencing students' financial capability. The study revealed that family structures and financial socialisation influence financial capabilities of students (Antoni, 2018). The current study focused on financial literacy, while Antoni focused on financial capability, and although the terms are used interchangeably in literature, there is evidence that they differ. Financial literacy is a precursor to financial capability (Taylor, 2011; Xiao & O'Neill, 2016). Further, financial literacy is a composite of financial capability (Nanziri & Leibbrandt, 2018). Therefore, individuals become financially literate by acquiring financial knowledge, as well as favourable financial attitude and behaviours. Furthermore, Antoni (2018) focused on students as a subset of young adults and family structure, whereas the current study focused on young black African adults.

Sallie (2015) investigated the impact of socialisation factors on financial literacy and financial security amongst employees in the financial services industry. The study found that parents are not significant influencers of financial socialising. However, Sallie's (2015) study has some limitations; only financial behaviour was used as a measure of financial literacy. According to Chardin (2011), the most effective way to determine financial literacy is to combine the dimensions of financial literacy, which are financial

attitude, financial behaviour, and financial knowledge. Furthermore, in Sallie's (2015) study, the majority (31%) of respondents were white, aged 40 years or older (49%), held technical college diplomas and degrees (100%), and had access to financial education (72%), financial magazines, internet access, and multimedia. The sample consisted of adults of the same company in an urban area. The current study focused on young black African adults in rural and low-income areas. Furthermore, it included four financial literacy dimensions, namely financial knowledge, financial behaviour, financial attitude, and financial decision-making.

The majority of international studies on financial socialisation and financial literacy, which were conducted mainly in developed countries, focused on students and employees. This excluded young adults who were not students and were not formally employed. The majority of young black African adults in rural and low-income area are neither in school nor formally employed. They perform temporary jobs in households, operate tuck shops (also known as "spazas"), work on farms, or run their own farms. The current study focused specifically on the general population of young black African adults, which was not limited to students and employees.

Most studies in this domain focused on biological parents. The present study contributes to the body of knowledge by extending the concept of a parent to include guardians and caregivers, because of the socioeconomic conditions of South Africa, especially in rural areas, where children are cared for by other people while their biological parents go to urban areas and cities to seek employment and a better life.

This study also contributes to the body of knowledge by showing, through EFA, that there is a difference between parental financial discussions and parental financial communication. The measures that were originally developed to measure parental financial discussions were split into two groups, and a new factor, namely parental financial communication, emerged. Most studies in literature reported on parental financial discussions and parental financial communication as a single construct. The present study showed that parental financial discussions involve discussing financial matters with children and involving them in family financial decisions, while parental financial communication involves speaking to children about finances without necessarily

requiring their inputs; thus, children are not involved in family financial matters, but are merely informed.

This study adds to extant literature by empirically showing that young black African adults are not financially literate, despite being financially socialised by their parents. This study showed that there is a significant difference in parental financial socialisation across parental SESs; there is no significant difference in parental financial socialisation according to the child's gender; there is a significant difference in parental financial socialisation according to parental gender; there is a significant negative relationship between culture and parental financial socialisation; and there is significant positive relationship between parenting style and parental financial socialisation. Furthermore, this study empirically proved that there is a significant positive relationship between parental financial socialisation and the child's financial literacy in young adulthood.

This study is amongst the first to investigate whether the relationship between parental financial socialisation and financial literacy is moderated by social structural factors (parental SES) and individual factors (child's gender and parental gender). It was established that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors. Furthermore, it was found that the relationship between parental financial socialisation and financial literacy is not moderated by individual factors.

This study also contributes the body of knowledge by proposing a parental financial socialisation model to facilitate financial literacy amongst young black African adults. The model indicates that financial literacy is predicted by parental financial socialisation; social structural factors predict parental financial socialisation; and social structural factors moderate the relationship between parental financial socialisation and financial literacy. Therefore, this model contributes to the existing body of knowledge of parental financial socialisation.

This study through the empirical results contributes to practice and policy development, as policy makers could gain insights on how to improve the financial literacy of young black African adults in rural and low-income area. Furthermore, financial educators could

use the results of this study to design programmes that would encourage parental financial socialisation.

## **9.5 LIMITATIONS OF THE STUDY**

This study relied on young black African adults relaying details about their upbringing and what their parents taught them. It might have added value to also include parents and ask them questions, rather than only relying on young adults to recall their childhood financial socialisation.

The sample, although large enough to achieve representativity, included only young black African adults in rural and low-income areas, specifically in Eastern Cape and Limpopo provinces, therefore excluding young black African adults from other provinces, those in middle- to high-income areas, and those in semi-urban and urban areas. Further, this study excluded young adults from other races, i.e., white, Asian, and Coloured.

Furthermore, this study adopted a cross-sectional study design; thus, no longitudinal data were collected. This study used only quantitative data; qualitative data may have provided additional valuable information on financial socialisation.

Financial knowledge questions in this study focused on subjective knowledge, where respondents were asked to answer questions based on their knowledge and understanding. No objective measure of financial knowledge was employed.

This study used a self-administered questionnaire with closed-ended questions. This limited the respondents' answers to pre-set options, and they had no opportunity to explain their answers. Conducting qualitative interviews using open-ended questions would have provided respondents an opportunity to provide additional information and would have enabled the researcher to probe respondents' answers.

## **9.6 RECOMMENDATIONS**

Parents should be keenly aware that their actions and behaviours around money and their own financial decision-making will likely leave a lasting impression on their children. Parents would be well served to increase the amount of direct financial communication between them and their children. This may require including the child in family financial matters, along with discussing situations and providing appropriate financial alternatives. Parents should also verbally discuss their decision-making with children when making a purchase and include their children in discussions on the household budget. Parents should not only be aware of their direct teachings, but also of how their own financial behaviours influence their children's development of financial skills. Parents are also advised to seek out and encourage children and young adults to partake in formal financial education opportunities. Male parents are encouraged to participate more in parental financial socialisation. Parents are advised to take parenting style seriously and consider adopting authoritative style as it support parental financial socialisation.

Financial educators should rigorously plan, design, and implement financial education programmes for young black African adults in rural and low-income areas, and include financial knowledge, financial behaviour, financial attitude, and financial decision-making in these programmes. Financial education programmes should also be tailored to teach parents about personal financial management, so that they are able to teach their children sound financial management practices and be a good financial role model to their children. Financial educators, financial practitioners, and government should design financial programmes targeted at parents with lower education levels, to enhance their financial literacy and, ultimately, improve the financial well-being of young adults.

Financial counsellors and planners should serve as mediators and facilitators of difficult financial conversations between parents and their children. Financial counsellors and planners should also encourage young black African adults to formulate long-term plans to address their own shortcomings in terms of financial knowledge and accomplish financial goals, to achieve financial well-being. Policy makers should create programmes and interventions that encourage parents to initiate a dialogue with their children on financial matters, such as the importance of saving, the family's income, financial

behaviours, and financial decision-making. These discussions could promote financial socialisation and financial literacy.

## **9.7 SUGGESTIONS FOR FURTHER RESEARCH**

This study investigated the influence of parental financial socialisation on financial literacy of young black African adults in rural and low-income areas in South Africa. While this study advances the knowledge of the relationship between parental financial socialisation and financial literacy, there are a number of areas for further research:

- This study focused on young black African adults in rural and low-income areas in Limpopo and Eastern Cape provinces. Future research could include other provinces, urban and middle to high-income areas, and other races.
- This study focused on young black African adults and relied on their recollection of financial socialisation when they were growing up. Future studies could also include parents as respondents on questions related to parental financial socialisation.
- This study measured subjective financial knowledge; future research could also objectively measure financial knowledge.
- This study only used quantitative data. Future studies could use include qualitative data in a mixed-methods approach to yield a more comprehensive understanding of financial socialisation.
- This study only focused on parents as a financial socialisation agent, because of the influence they have on their children, and because children regard them as role models. Future studies could focus on other financial socialisation agents, such as teachers, media, and peers.
- This study measured parental financial socialisation in young adulthood. Future studies could be longitudinal, measuring parental financial socialisation at different stages of life as children grow up.

## 9.8 CONCLUSION

This study contributed to the body of knowledge regarding financial socialisation by focusing on the influence of parental financial socialisation on the financial literacy of young black African adults in rural and low-income areas in South Africa. The results indicated that parental financial socialisation influences the financial literacy of these young black African adults. The overall level of financial literacy amongst young black African adults was found to be low — 49.3%. This study found that young black African adults are moderately financially socialised by their parents. This confirmed literature that indicates that parents are the most important financial socialisation agent. The SES levels of parents were found to be an important factor in children's financial socialisation. Parents with a higher SES are more likely to socialise their children financially than those with a lower SES.

This study further found that there is no difference in parental financial socialisation according to the child's gender. However, the study did find a difference in parental financial socialisation according to the parent's gender — female parents are more likely than male parents to engage in the financial socialisation of their children. This study found a negative relationship between culture and parental financial socialisation. Parents who uphold cultural values, beliefs, and norms are less likely to engage in parental financial socialisation. This study also found a positive relationship between parenting style and parental financial socialisation.

This study further found that the relationship between parental financial socialisation and financial literacy is moderated by social structural factors. However, the relationship between parental financial socialisation and financial literacy was not found to be moderated by individual factors. This study also contributes to the body of knowledge through the proposed Parental Financial Socialisation Model, which may be useful in facilitating the financial literacy of young black African adults. The recommendations provided in this study, if implemented by parents, financial institutions, financial educators, and financial counsellors and planners, could positively influence the financial literacy of young black African adults in South Africa.

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## ANNEXURES

### ANNEXURE A: QUESTIONNAIRE USED IN PILOT STUDY

#### SECTION A: GENERAL INFORMATION

Please mark your responses to the following questions with an (X).

**1. Please indicate your local municipality**

Fetakgomo Tubatse		1
Intsika Yethu		2

**2. Please indicate your gender**

Male		1
Female		2

**3. Please indicate to which age category you belong to.**

18 – 20		1
21 – 25		2
26 – 30		3
31 – 35		3

**4. Please indicate your current marital status**

Not married		1
Married		2
Living with a partner		3
Divorced		4
Widow/Widower		5

**5. Please indicate which statement best describe your living situation at home while growing up? (*Select only*)**

<b>I was raised by:</b>		
My mother and father (biological or adopted)		1
My biological mother only		2
My biological father only		3
My biological mother and extended relatives such as aunts and grandparents		4
My biological father and extended relatives such as aunts and grandparents		5
My biological mother and her opposite-sex romantic partner		6
My biological father and his opposite-sex romantic partner		7

My biological mother and her same-sex romantic partner		8
My biological father and his same-sex romantic partner		9
My biological father and two or more mothers (biological and a romantic partner)		10
My extended relatives such as aunts and grandparents (without my mother)		11
My extended relatives such as aunts and grandparents (without my father)		12
My sibling(s) such as a sister and/or a brother (without my mother and father)		13

## SECTION B: PARENT SOCIOECONOMIC STATUS (SES)

### 6. Please indicate your parent(s) estimated monthly income

Less than R5 000		1
R5 001 – R10 000		2
R10 001 – R15 000		3
R15 001 – R20 000		4
R20 001+		5

### 7. Please indicate your parent(s) educational level

Lower than Grade 12		1
Grade 12		2
Diploma		3
Bachelor's degree		4
Honours degree		5
Master's degree		6
Doctorate		7

### 8. Please indicate your parent(s) occupation

Unemployed		1
General worker		2
Agricultural, forestry and fishery worker		3
Clerical support worker		4
Service and sales worker		5
Security and armed forces		6
Banking and financial sector worker		7
Education sector worker		8
Technician		9
Manager		10

In section C, D and E the columns are scaled from 1 to 5, where 1 = **strongly disagree** and 5 = **strongly agree**. Please indicate your level of agreement or disagreement with each statement by placing a cross (X) in the appropriate column. **N/B: Parents refers to biological parents and any other person who took care and provided for you while growing up.**

### SECTION C: CULTURAL VALUES AND NORMS

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	upheld cultural values	1	2	3	4	5
2	taught me that only boys should be involved in family money matters	1	2	3	4	5
3	taught me that only girls should be involved in family money matters	1	2	3	4	5
4	believed that both boys and girls should be involved in family money matters	1	2	3	4	5
5	believed that money matters should not be discussed with children	1	2	3	4	5
6	believed that everyone (boys/girls) must do household chores such as cleaning and cooking	1	2	3	4	5
7	taught me about our tradition, heritage and cultural values	1	2	3	4	5
8	participated in cultural activities that are specific to our family	1	2	3	4	5

### SECTION D: PARENTING STYLES

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	were strict	1	2	3	4	5
2	expected me to follow family rules	1	2	3	4	5
3	made most decisions about what I was allowed to do	1	2	3	4	5
4	told me that their decisions should not be questioned	1	2	3	4	5
5	did not worry whether or not I do the chores they ask me to do	1	2	3	4	5
6	allowed me to do pretty much what I want without questioning my decisions	1	2	3	4	5
7	wanted to know exactly where I go	1	2	3	4	5

8	wanted to know exactly what I do with my free time	1	2	3	4	5
9	had an interest in my activities	1	2	3	4	5
10	usually told me reasons for rules	1	2	3	4	5
11	praised me when I do things well	1	2	3	4	5
12	makes people respect you in the community	1	2	3	4	5
13	did fun things with me	1	2	3	4	5
14	spent time just talking to me	1	2	3	4	5
15	would explain why, if they want me to do something	1	2	3	4	5
16	believed I had a right to my own point of view	1	2	3	4	5
17	encouraged me to look at both sides of issues	1	2	3	4	5

### SECTION E: FINANCIAL SOCIALIZATION

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	taught me how to budget	1	2	3	4	5
2	taught me how to use credit	1	2	3	4	5
3	taught me how to be a smart shopper	1	2	3	4	5
4	taught me how to save	1	2	3	4	5
5	taught me about money only in childhood	1	2	3	4	5
6	taught me about money only in adolescence	1	2	3	4	5
7	taught me about money throughout childhood	1	2	3	4	5
8	gave me allowances such as pocket money	1	2	3	4	5
9	would tell me how to spend money	1	2	3	4	5
10	would give me financial advice	1	2	3	4	5
11	knew how I spend money	1	2	3	4	5
12	would allow me to spend allowance (money) as I want	1	2	3	4	5
13	involved me in family financial matters	1	2	3	4	5
14	discussed with me managing expenses and avoiding overspending	1	2	3	4	5
15	discussed with me checking credit report	1	2	3	4	5
16	discussed with me paying bills on time	1	2	3	4	5

17	spoke to me about the importance of saving	1	2	3	4	5
18	talk to me about things we need to buy	1	2	3	4	5
19	explained the use of credit	1	2	3	4	5
20	explained the family spending plan	1	2	3	4	5
21	discussed their personal financial decisions with me	1	2	3	4	5
22	saved money for the future	1	2	3	4	5
23	used a budget	1	2	3	4	5
24	encouraged me to save	1	2	3	4	5
25	opened a saving account for me	1	2	3	4	5
26	involved me in drafting grocery list	1	2	3	4	5
27	went to shopping with me	1	2	3	4	5
28	valued my inputs in family financial decisions	1	2	3	4	5

#### SECTION F: FINANCIAL LITERACY

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I put money aside for saving in the last 12 months	1	2	3	4	5
2	I regularly increase the money for saving	1	2	3	4	5
3	I save money to achieve long-term financial goals	1	2	3	4	5
4	I have money aside for emergency	1	2	3	4	5
5	I plan to put money aside for saving in the next 12 months	1	2	3	4	5
6	I compare prices when making a purchase	1	2	3	4	5
7	I have a spending plan	1	2	3	4	5
8	I follow the plan I have for how to use my money.	1	2	3	4	5
9	I keep track of my spending plan	1	2	3	4	5
10	I regularly review my spending plan	1	2	3	4	5
11	Before buying anything, I carefully check whether I am able to pay for it	1	2	3	4	5
12	I keep written or electronic financial records of my expenditure	1	2	3	4	5
13	I review my bills before making a large purchase	1	2	3	4	5
14	If interest rate rises, so is loan repayments	1	2	3	4	5
15	Pension is retirement income paid by a company	1	2	3	4	5
16	High inflation means that the cost of living is increasing	1	2	3	4	5

17	Credit providers use debt repayment records and affordability when making decisions to approve loans	1	2	3	4	5
18	Value Added Tax (VAT) is tax paid on goods and services	1	2	3	4	5
19	If you start saving for retirement early, the more money you will have for retirement	1	2	3	4	5
20	An investment with high return will have a high-risk rate	1	2	3	4	5
21	If you lend R30 to a friend one evening and he gives you R30 back the next day. No interest paid on this loan	1	2	3	4	5
22	If you have R100 in a savings account and the interest rate is 2% per year. You will have R102 in your savings account after 1 year	1	2	3	4	5
23	I am satisfied with the way I pay my bills	1	2	3	4	5
24	I worry about being able to meet monthly living expenses	1	2	3	4	5
25	I am prepared to risk some of my own money when saving	1	2	3	4	5
26	I risk some of my money to save or make an investment	1	2	3	4	5
27	I find it more satisfying to spend money than to save it for long-term	1	2	3	4	5
28	I tend to live for today and let tomorrow take care of itself	1	2	3	4	5
29	Money is there to be spent	1	2	3	4	5
30	I buy things on credit rather than waiting and saving up	1	2	3	4	5
31	I find it difficult to decide on what to include in my personal budget	1	2	3	4	5
32	I choose financial products after gathering enough information	1	2	3	4	5
33	I make financial decisions that I later regret.	1	2	3	4	5
34	I buy financial products that are clearly unsuitable for me to discover later	1	2	3	4	5
35	I have too much debt right now	1	2	3	4	5
36	I consider terms and conditions before signing credit or investment agreement	1	2	3	4	5
37	I make financial decisions based on what my parent(s) have done in similar situations	1	2	3	4	5
38	I make financial decisions based on what my parent(s) have taught me	1	2	3	4	5
39	I look to my parent(s) when it comes to managing money	1	2	3	4	5

**END- Thank you for taking time to complete this questionnaire**

## ANNEXURE B: QUESTIONNAIRE USED IN THE MAIN STUDY WITH FREQUENCIES

### SECTION A: GENERAL INFORMATION

Please mark your responses to the following questions with an (X).

**1. Please select your local municipality**

Fetakgomo Tubatse		60%
Intsika Yethu		40%

**2. Please indicate your gender**

Male		33.3%
Female		66.7%

**3. Please indicate to which age category you belong to.**

18 – 20		28.2%
21 – 25		22.3%
26 – 30		23.1%
31 – 35		26.3%

**4. Please indicate your current marital status**

Single		28.8%
Married		16.3%
Living with a partner		25.2%
Divorced		15.9%
Widow/Widower		13.8%

**5. Please indicate which parent was more free to talk to you about money.**

Female parent		62.7%
Male parent		24.2%
Both parents		13.1%

### SECTION B: PARENT SOCIOECONOMIC STATUS (SES)

**6. Please indicate your parent(s) estimated monthly income**

Less than R5 000		32.2%
------------------	--	-------

R5 001 – R10 000		27.8%
R10 001 – R15 000		18.0%
R15 001 – R20 000		16.5%
R20 001+		5.5%

**7. Please indicate your parent(s) educational level**

Lower than Grade 12		23.3%
Grade 12		28.0%
Diploma		15.7%
Bachelor's degree		14.4%
Honours degree		10.6%
Master's degree		7.6%
Doctorate		0.4%

**8. Please indicate your parent(s) occupation status**

Unemployed		11.0%
Self-employed		12.3%
General worker		12.5%
Agricultural, forestry and fishery worker		8.9%
Clerical support worker		10.0%
Service and sales worker		5.1%
Security and armed forces		5.3%
Trained professional		6.1%
Financial sector worker		9.3%
Education sector worker		7.6%
Technician		6.1%
Manager		5.7%

In Sections C, D and E the columns are scaled from **1** to **5**, where **1 = strongly disagree** and **5 = strongly agree**. Please indicate your level of agreement or disagreement with each statement by placing a cross (**X**) in the appropriate column. **N/B: Parent refers to a biological parent and any other person who took care and provided for you while growing up.**

## SECTION C: CULTURAL VALUES AND NORMS

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	upheld cultural values	44.5%	3.0%	1.1%	24.6%	26.9%
2	taught me that only boys should be involved in family money matters	33.9%	13.3%	2.8%	35.5%	14.4%
3	taught me that only girls should be involved in family money matters	11.4%	61.0%	22.7%	3.8%	1.1%
4	taught me that both boys and girls should be involved in family money matters	9.1%	31.6%	9.3%	15.5%	34.5%
5	believed that money matters should not be discussed with children	11.9%	30.3%	7.8%	33.9%	16.1%
6	believed that only girls must do household chores such as cleaning and cooking	29.0%	16.5%	5.9%	26.1%	22.5%
7	taught me about our tradition, heritage and cultural values	11.0%	31.8%	6.1%	22.5%	28.6%
8	participated in cultural activities that are specific to our family	10.2%	32.8%	4.0%	22.9%	30.1%

## SECTION D: PARENTING STYLES

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	were easy on time for me to come back home	35.8%	10.4%	2.8%	25.2%	25.8%
2	discussed family rules with me	17.6%	29.4%	4.0%	35.6%	13.3%
4	told me that their decisions are final	24.8%	18.0%	9.1%	29.9%	18.2%
5	used physical punishment as a way of disciplining me	16.5%	32.0%	8.7%	19.9%	22.9%
6	exploded in anger towards me	19.7%	26.9%	7.8%	28.4%	17.2%
7	criticised me to make me improve	16.9%	29.7%	5.3%	28.4%	19.7%

8	did not worry whether or not I do the chores they ask me to do	17.8%	36.7%	15.9%	17.2%	12.5%
9	allowed me to do pretty much what I want without questioning my decisions	16.1%	23.3%	10.0%	32.6%	18.0%
10	allowed me to go where I want without questioning me	13.6%	23.9%	10.0%	33.3%	19.3%
11	allowed me to spend my free time as I want	15.9%	22.7%	9.3%	31.6%	20.6%
12	had an interest in my activities	16.7%	24.8%	7.6%	30.7%	20.1%
13	usually told me reasons for rules	16.3%	26.3%	7.4%	29.0%	21.0%
14	praised me when I do things well	16.5%	25.0%	9.5%	27.1%	21.8%
15	did fun things with me	15.3%	27.1%	11.0%	28.2%	18.4%
16	spent time just talking to me	16.5%	24.6%	11.9%	27.1%	19.9%
17	would explain why, if they want me to do something	18.2%	26.1%	8.1%	27.5%	20.1%
18	encouraged me to look at both sides of issues	22.5%	22.5%	7.0%	27.3%	20.8%
19	encouraged me to talk about my troubles	20.6%	24.2%	6.4%	26.5%	22.5%

## SECTION E: FINANCIAL SOCIALISATION

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
<b>While I was growing up my parents:</b>						
1	taught me about budgeting	31.4%	17.2%	5.9%	32.2%	13.3%
2	taught me about credit	25.2%	23.7%	6.1%	30.7%	14.2%
3	taught me how to be a smart shopper	11.7%	32.2%	10.2%	19.9%	26.1%
4	taught me about savings	14.2%	24.4%	14.0%	25.6%	21.8%
5	taught me how to manage my money	12.7%	22.9%	12.5%	33.5%	18.4%
6	taught me about money only in early childhood	29.7%	18.2%	9.3%	28.4%	14.4%
7	taught me about money only in adolescence	31.4%	17.8%	7.0%	26.5%	17.4%
8	taught me about money throughout childhood	10.8%	21.6%	14.6%	19.9%	33.1%
9	gave me allowances such as pocket money	15.3%	23.3%	9.7%	37.3%	14.4%

10	would want to know how I spend pocket money	17.2%	21.8%	11.2%	32.4%	17.4%
11	would give me financial advice	14.8%	26.5%	8.9%	27.3%	22.5%
12	would want to know if I receive money from part-time job	14.8%	18.2%	10.2%	34.1%	22.7%
13	monitored my spending behaviour	14.4%	20.8%	11.4%	33.9%	19.5%
14	restricted my spending	13.1%	23.5%	12.3%	33.1%	18.0%
15	reviewed my spending habits	18.0%	21.2%	11.7%	26.9%	22.2%
16	would allow me to spend money as I want	16.3%	25.8%	10.4%	26.9%	20.6%
17	involved me in family financial matters	16.3%	24.6%	11.2%	27.5%	20.3%
18	discussed with me managing expenses and avoiding overspending	16.7%	25.2%	10.2%	29.2%	18.6%
19	discussed with me checking credit report	19.1%	23.3%	11.2%	26.7%	19.7%
20	discussed with me paying bills on time	17.6%	24.2%	10.2%	23.3%	24.8%
21	spoke to me about the importance of saving	30.3%	18.6%	6.6%	36.2%	8.3%
22	talk to me about things we need to buy	28.6%	20.8%	4.9%	33.9%	11.9%
23	explained the use of credit	14.0%	33.7%	6.8%	16.9%	28.6%
24	explained the family spending plan	13.3%	28.8%	11.7%	19.5%	26.7%
25	discussed their personal financial decisions with me	16.3%	20.1%	13.1%	34.3%	16.1%
26	saved money for the future	12.3%	24.2%	12.5%	33.1%	18.0%
27	used a budget	13.1%	24.6%	9.7%	25.4%	27.1%
28	tracked monthly expenses	14.0%	22.7%	9.7%	27.5%	26.1%
29	paid bills on time	16.9%	18.9%	10.4%	31.4%	22.5%
30	went to shopping with me	14.6%	21.8%	10.2%	27.3%	26.1%

## SECTION F: FINANCIAL LITERACY

	Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I regularly set money aside for saving	32.6%	16.5%	7.6%	35.0%	8.3%
2	I save money each month for the future	29.0%	21.0%	5.5%	35.6%	8.9%
3	I save money to achieve long-term financial goals	12.9%	34.1%	9.5%	16.3%	27.1%
4	I set money aside for emergencies	13.3%	28.6%	12.3%	19.3%	26.5%
5	I regularly set money aside for possible unexpected expenses	15.9%	25.2%	11.2%	33.5%	14.2%
6	I estimate my monthly income and expenses	18.0%	21.4%	13.1%	32.4%	15.0%
7	I have a plan for how to use my money	16.7%	23.9%	10.6%	26.9%	21.8%
8	I compare prices when making a purchase	15.0%	25.8%	10.0%	24.6%	24.6%
9	I follow a weekly or monthly budget	15.5%	24.8%	11.7%	28.2%	19.9%
10	I follow the plan I have for how to use my money.	17.6%	22.5%	11.9%	27.8%	20.3%
11	I regularly review my spending plan	14.4%	24.4%	10.8%	31.1%	19.1%
12	Before buying anything, I carefully check whether I am able to pay for it	14.0%	23.9%	11.4%	31.1%	19.5%
13	I keep written or electronic financial records of my expenditure	16.9%	20.8%	10.8%	29.2%	22.2%
14	I review and evaluate my spending on a regular basis	16.3%	20.6%	11.4%	33.3%	18.2%
15	If interest rate rises, so is loan repayments	14.0%	21.4%	14.4%	31.4%	18.9%
16	I know the difference between a need and a want	14.2%	24.6%	12.3%	26.9%	22.0%
17	I know key questions to ask when shopping for an item	14.8%	22.5%	13.8%	29.4%	19.5%
18	I understand the cost of buying on credit	13.6%	23.1%	12.7%	30.7%	19.9%
19	I know what is on a credit record or report	14.2%	23.3%	13.6%	25.8%	23.1%
20	Compared to my friends, I know more about savings	15.7%	21.6%	12.3%	29.2%	21.2%
21	I know a lot about saving money	25.6%	19.1%	8.7%	36.9%	9.7%
22	High inflation means that the cost of living is increasing	23.7%	22.9%	7.2%	37.3%	8.9%

23	Credit providers use debt repayment records and affordability when making decisions to approve loans	12.1%	32.6%	8.7%	19.1%	27.5%
24	Financial record keeping and budgeting are the same	13.3%	23.1%	16.3%	27.8%	19.5%
25	Value Added Tax (VAT) is tax paid on goods and services	16.1%	19.1%	12.1%	38.3%	14.4%
26	I must have a bank account to have an ATM card	13.1%	21.4%	10.8%	31.1%	23.5%
27	An investment with high return will have a high-risk rate	11.7%	20.3%	13.3%	27.3%	27.3%
28	You should have an emergency fund that covers two to six months of your expenses	12.9%	20.3%	11.2%	34.3%	21.2%
29	With compounded interest, you earn interest on your interest, as well as on your capital amount	12.5%	20.8%	14.0%	35.4%	17.4%
30	If you have R100 in a savings account and the interest rate is 2% per year. You will have R102 in your savings account after 1 year	13.1%	22.9%	12.7%	33.5%	17.8%
31	I am good at managing my money	14.2%	21.4%	12.7%	30.7%	21.0%
32	I am satisfied with the way I pay my bills	14.0%	22.9%	12.3%	27.1%	23.7%
33	I am satisfied with my ability to meet monthly living expenses	14.8%	23.5%	11.9%	31.6%	18.2%
34	I am prepared to risk some of my own money when saving	14.8%	23.5%	14.0%	32.8%	14.8%
35	I find it more satisfying to save money for long-term than to spend it	16.9%	23.1%	10.8%	31.6%	17.6%
36	I spend money today thinking about how I would survive tomorrow	15.9%	23.1%	12.7%	31.8%	16.5%
37	I buy things on credit rather than waiting and saving up	32.4%	23.1%	11.4%	22.0%	11.0%
38	I feel confident about making decisions that deal with money	11.4%	24.4%	11.7%	33.5%	19.1%
39	Compare to other people, I think I do pretty well at making financial decisions	14.0%	18.9%	13.3%	36.2%	17.5%
40	I find it easy to decide on what to include in my personal budget	12.1%	21.4%	11.9%	28.4%	26.3%
41	I choose financial products after gathering enough information	25.8%	14.8%	8.5%	39.8%	11.0%
42	I make sound financial decisions that I do not regret later	19.5%	23.7%	8.9%	35.6%	12.3%
43	I buy financial products that are clearly suitable for me	9.1%	26.1%	13.1%	25.8%	25.8%
44	I consider terms and conditions before signing credit or investment agreement	7.2%	18.2%	18.6%	31.1%	24.8%

45	I make financial decisions based on what my parent(s) have done in similar situations	5.1%	14.2%	11.4%	41.1%	28.2%
46	I make financial decisions based on what my parent(s) have taught me	5.3%	9.3%	9.1%	37.7%	38.6%
47	I look to my parent(s) when it comes to managing money	5.3%	7.4%	6.1%	31.8%	49.4%

**END- Thank you for taking time to complete this questionnaire**

## ANNEXURE C: CONSENT FORM

Consent Form

**RESEARCH SUBJECT: THE INFLUENCE OF PARENTAL FINANCIAL SOCIALISATION ON FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL AND LOW-INCOME AREAS IN SOUTH AFRICA**

**PO BOX 392 Dept of Finance, Risk Management and Banking, Unisa, 0003 South Africa**  
**Researcher: Adam Ndou, [endouaa@unisa.ac.za](mailto:endouaa@unisa.ac.za)**  
**Cell: 072 502 9142**

Dear Respondent

You are invited to participate in an academic study conducted by Adam Ndou, a PhD student under the supervision of Professor M.S Ngwenya of the Department of Finance, Risk Management and Banking at the University of South Africa.

Financial literacy of young black African adults in rural and low-income areas is of great concern. The level of financial literacy of a person will determine his or her personal and social well-being. Financial literacy has been found to promote financial inclusion in social disadvantaged areas and seen as a mechanism to improve the financial wellbeing of a community and the individual.

The purpose of this study is to investigate the influence of parental financial socialisation on financial literacy of young black African adults in rural and low-income areas in South Africa.

The questionnaire comprises mostly about statements of financial literacy and financial socialisation and should take approximately 15 to 20 minutes to complete. Therefore, you are kindly requested to complete them honestly and to the best of your knowledge. Responses will be collected after a period of a week, and will at all times be treated as confidential, anonymous and will not be made available to any entity or third party.

Your participation to the study is of importance and would be appreciated. Should you require any further information, please do not hesitate to contact Adam Ndou.

**Please tick as appropriate**

	Yes	No
1. I have read the questionnaire.		
2. I understand that I am free to refuse to take part in the study as I wish.		
3. I understand that I may withdraw from the study at any time without a reason.		
4. I may ask for more information about the study.		
5. I understand that all information on the study shall be treated as confidential and anonymous.		
6. I shall not be identified in the study report.		
7. I agree to take part in the study.		
Signature:		
Date:		

## ANNEXURE D: PARTICIPANT INFORMATION SHEET

### PARTICIPANT INFORMATION SHEET

**RESEARCH SUBJECT: THE INFLUENCE OF PARENTAL FINANCIAL SOCIALIZATION ON FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL AND LOW-INCOME AREAS IN SOUTH AFRICA**

**PO BOX 392 Dept of Finance, Risk Management and Banking, Unisa, 0003 South Africa  
Researcher: Adam Ndou, 84 Ipandula road, Capital Park, Pretoria, 0184  
[endouaa@unisa.ac.za](mailto:endouaa@unisa.ac.za) Cellphone: 072 502 9142**

Dear Respondent

You are invited to participate in an academic study conducted by Adam Ndou, a PhD student under the supervision of Professor M.S Ngwenya of the Department of Finance, Risk Management and Banking at the University of South Africa.

Financial literacy of young black African adults in rural and low-income areas is of great concern. The level of financial literacy of a person will determine his or her personal and social well-being. Financial literacy has been found to promote financial inclusion in social disadvantaged areas and seen as a mechanism to improve the financial wellbeing of a community and the individual.

The purpose of this study is to investigate the influence of parental financial socialisation on financial literacy of young black African adults in rural and low-income areas in South Africa. The questionnaire comprises mostly about statements of financial literacy and financial socialisation and should take approximately 15 to 20 minutes to complete. Therefore, you are kindly requested to complete them honestly and to the best of your knowledge. Responses will at all times be treated as confidential, anonymous and will not be made available to any entity or third party.

Copies of your answers will be stored by the researcher for a period of 5 years in a locked filing cabinet for future research or academic purposes after which will be shred; electronic information will be stored on a password protected computer and will be deleted permanently thereafter. A report of the study will be shared with Intsika Yethu, and Fetakgomo Tubatse municipalities, to consider recommendations made and may be submitted for publication, but individual participants will not be identifiable in such a report.

Your participation to the study is of importance and would be appreciated. This study is voluntary, and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason. Should you require any further information, please do not hesitate to contact Adam Aifheli Ndou.

Thank you for taking time to read this information sheet and participating in this study.

Researcher's signature:



## ANNEXURE E: ETHICAL CLEARANCE CERTIFICATE



### UNISA DEPARTMENT OF FINANCE, RISK MANAGEMENT AND BANKING ETHICS REVIEW COMMITTEE

Date: 09 DECEMBER 2019

Dear Mr A Ndou

ERC Ref #2019/CEMS/FRMB/023  
Name : Mr A Ndou  
Student #:  
Staff #: 90218949

**Decision: Ethics Approval from 09 December 2019 to 31 January 2025**

**Researcher(s):** Name Mr A Ndou

E-mail address endouaa@unisa.ac.za, telephone 012 429 4641

**Supervisor (s):** Name Prof S Ngwenya

E-mail address ngwenms@unisa.ac.za, telephone 012 433 4711

#### **Working title of research:**

The influence of parental financial socialisation on financial literacy of young black African adults in rural and low-income areas in South Africa

**Qualification:** DCOM

Thank you for the application for research ethics clearance by the Unisa DFRB Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 09 December 2019 to 31 January 2025

*The Low risk application was reviewed by the DFRB Ethics Review Committee on 09 December 2019 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment*



University of South Africa  
Pretter Street, Mafikeng, Ficksburg, City of Tlokweng  
PO Box 392 UNISA 0033 South Africa  
Telephone: +27 12 409 3111 Facsimile: +27 12 429 6150  
www.unisa.ac.za

The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
2. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the DFRB Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date (2024). Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

*Note:*

*The reference number 2019/CEMS/FRMB/023 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,



Signature

Acting Chair of DFRB ERC : Mr K Khumalo

E-mail: [khumame@unisa.ac.za](mailto:khumame@unisa.ac.za)

Tel: (012) 429-2061



Signature

Executive Dean : Prof T Mogale

E-mail: [mogalemt@unisa.ac.za](mailto:mogalemt@unisa.ac.za)

Tel: (012) 429-4805

URERC 25.04.17 - Decision template (V2) - Approve

University of South Africa  
Pretorius Street, Muckleneck Ridge, City of Tshwane  
PO Box 592 UNISA 0003 South Africa  
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150

## ANNEXURE F: TURNITIN DIGITAL SLIP



### Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author: Adam Aifheli Ndou  
Assignment title: Revision 1  
Submission title: THE INFLUENCE OF PARENTAL FINANCIAL SOCIALISATION O...  
File name: isation\_on\_financial\_literacy\_of\_young\_black\_African\_adults...  
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SUPERVISOR: PROF. M.S. NOWENYA

JUNE, 2022

## THE INFLUENCE OF PARENTAL FINANCIAL SOCIALIZATION ON FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL AND LOW-INCOME AREAS IN SOUTH AFRICA

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