

Parental Financial Socialisation and Financial Knowledge: A Structural Equation Modelling Analysis¹

Adam Ndou[†]

Department of Finance, Risk Management and Banking, University of South Africa, South Africa
ORCID: <https://orcid.org/0000-0001-7103-0184>

ARTICLE INFO	ABSTRACT
<p>Article History</p> <p>Received 28 February 2023 Accepted 9 June 2023</p> <p><i>JEL Classifications</i> D14, G51, G53</p>	<p>Purpose: The main aim of the study was to investigate the impact of parental financial socialisation on financial knowledge of young black African adults in rural and low-income area in South Africa. This study was guided by family financial socialisation theory which is cognisant of the various family characteristics, such as family size and socioeconomic status, as predictors of financial outcome through their association with family socialisation process.</p> <p>Design/methodology/approach: The study used quantitative approach and survey design. Primary data on parental financial socialisation was collected from structured questionnaires. A survey was carried out on 500 young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities. The research hypotheses were tested using structural equation modelling (SEM) analysis.</p> <p>Findings: The study found that parental financial behaviour, parental financial discussion, parental financial communication, and parental financial teaching had significant positive impact on financial knowledge. It is observed that parental financial communication had the strongest impact on financial knowledge. Parental financial monitoring had a significant negative impact on financial knowledge. Thus, the overall results showed that parental financial socialisation has an impact on financial knowledge of young black African adults in rural and low-income area in South Africa.</p> <p>Research limitations/implications: Due to the low levels of general literacy among the respondents, which negatively affected data collection; some young adults did not understand the questionnaire and withdrew from participating in the study. Furthermore, even though confidentiality and anonymity were guaranteed, respondents were reluctant to participate in the study. They feared exposing their financial position and displayed a lack of trust.</p> <p>Originality/value: The current study contributed to the body of knowledge differently to the previous studies because it focused on parental financial socialisation of young black African adults in rural and low-income area. There is no study which has been conducted on parental financial socialisation impact on financial knowledge in rural and low-income area in South Africa. This makes this study so important and warrant that it should be carried out to provide the much-needed results that could help to improve the level of financial knowledge of young black African adults.</p>

Keywords:
Young black African adults, Parents, Financial knowledge, Parental financial socialisation.

¹ This study is based on the PhD thesis entitled "The influence of parental financial socialisation on financial literacy of young black African adults in rural and low-income area in South Africa" of the corresponding author.

1. Introduction

The burning issue globally is the persisting low levels of financial knowledge of young adults (Lusardi et al., 2010; Garg & Singh, 2018), particularly those in developing countries Sub-Saharan Africa, and rural and low-income areas (French & McKillop, 2016; Grohmann, 2018). According to Loke (2015) individuals in low-income area have a lower level of financial knowledge and do not actively manage their personal finances. Financial knowledge is lowest among financially poorer young adults (Cameron et al., 2014). South Africa is one of the most unequal countries in the world, with high level of poverty and unemployment (World Bank, 2022). The legacy of apartheid had a negative impact on the majority of 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 structural inequalities of the past. They are suffering from high levels of poverty and unemployment (Statistics South Africa) (STATSSA, 2018). For the few who are working, they are confronted with a challenge of supporting extended family members financially, the colloquial termed 'black tax'. For young people living in poor families, low levels of financial knowledge make it difficult to escape from the cycle of intergenerational poverty (Zhu et al., 2019). Parents from poor families are confronted with a challenge that they might not be in a position to teach their children about finances. There is fear that parents with low levels of financial literacy can teach and pass through to their children wrong financial information. This makes the process of financial socialisation more complicated and would affect young black African adults' development of financial competencies and abilities to manage their finances. Young black African adults in rural and low-income areas are widely affected, putting more pressure on their finances. They are also struggling to effectively manage their finances, highly indebted and are underprivileged by lacking the knowledge and experience of dealing with financial institutions and managing large sums of money (Finmark Trust, 2019). This is also due to high fees and interest rates charged to them as they are considered high risk (Agarwal et al., 2009). According to Antoni (2014) black African consumers have low levels of knowledge regarding issues such as bad debts and are more likely to experience financial problems than other racial groups.

Studies observed that young black African adult's lacks financial knowledge and are not fully equipped to deal with financial challenges and responsibilities on transition to adulthood (Lusardi et al., 2010; Hudson et al., 2017). This is also coupled by limited access to financial education. Ramavhea et al. (2017) argued that financial knowledge of young black adults in rural and low-income areas in South Africa is more worrying because the economy is in a bad state and could be downgraded further and encounter recession. Besides persisting low levels of financial knowledge of black young adults in rural and low-income areas financial socialisation seem to be ignored. Parents play an important role in children upbringing and are able to influence children's behaviour (Clarke et al., 2005), but little is known about their influence on financial knowledge of black young adults in rural and low-income area. Therefore, this study intends to investigate the influence of parental financial socialisation on financial knowledge of young black African adults in rural and low-income area in South Africa. Thus, this study is of national importance to South Africa and to the international community because it intends to fill the gap in literature which according to the researcher's knowledge has been ignored for a very long time, as there seems to be no study that investigate the influence of parental financial socialisation on young black African adults' financial knowledge in rural and low-income area. The only notable studies were conducted by Nomlala (2021), Antoni & Saayman (2021), Antoni et al. (2019), Antoni (2018) & Sallie (2015). Nomlala (2021) investigated financial socialisation of accounting students in South African universities. Antoni & Saayman (2021) determined the influence of financial socialisation mechanisms on the levels of financial literacy of young financial professionals. Antoni et al. (2019) examined the influence of parental financial socialisation techniques on financial behaviour of students. The current study contributed to the body of knowledge differently to these studies because it focused on parental financial socialisation of young black African adults in rural and low-income area. While these studies focused on general financial socialisation of accounting students, young financial professionals, and general students. This confirms the researcher view, after comprehensive review of literature that financial socialisation studies in rural and low-income areas are scant. The current study focused on rural and low-income area in South Africa to investigate the influence of parental influence on financial knowledge of young black African adults. The remainder of this article is structured as follows: Section 2 provides literature review. Section 3 explores conceptual model and hypotheses of the study. Section 4 covers methods used to conduct the study. Section 5 presents empirical results of the study. Section 6 provides conclusion and recommendations.

2. Review of Literature

2.1 Theoretical Review

This study adopted the family financial socialisation theory by Gudmunson & Danes (2011), Piaget's (1952) theory of cognitive development, and Vygotsky's (1956) sociocultural theory. Gudmunson & Danes (2011) drew from the consumer socialisation model by Moschis & Churchill (1978) to incorporate family characteristics, and family interactions and relationships to financial socialisation. The family financial socialisation theory is cognisant of the various family characteristics, such as family size and socioeconomic status, as predictors of financial outcome through their association with family socialisation process. The theory 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 theory 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). 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). 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 et al. (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 et al., 2010). Vygotsky (1956) introduced sociocultural theory as an extension of Piaget's (1952) theory of cognitive development. 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. 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).

2.2 Previous studies

Research has shown that parental financial socialisation is impactful to children's development of financial knowledge (Serido & Deenanath, 2016). Studies have compared the influence of parental financial socialisation to other socialisation agents such as school, work, media, and peers and have found that parents seem to be the primary source of financial learning (Grohman et al., 2015). This study measures parental financial socialisation influence on financial knowledge through parental financial behaviour, parental financial monitoring, parental financial discussion, parental financial communication, and parental financial teaching.

Parental financial behaviour is a critical component of parental financial socialisation that can improve financial knowledge of young black African adults. This occurs when children view their parents as role models and do what their parents did when they grow up. When parents pay bills, put money aside for emergencies, they model the financial norms, attitudes, and behaviours that form the foundation for their children's financial values (Buccioli & Veronesi, 2014). Observation of parents' financial behaviours is influential in developing financial knowledge in children that sustain into the future (Garrison & Gutter, 2010). Otto (2009) found that parents' saving example influenced their children's saving skills and financial knowledge. Parents with more experience in financial management are likely to transfer their financial knowledge and skills to children.

Parental monitoring of children's use of money is a mechanism by which parents help children internalise and familiarise with parents' rules and expectations about financial practices. The importance of parental financial monitoring is visibly in the development of sensible financial knowledge. Norvilitis & MacLean (2010) for example in reference to over-indebtedness found that parental monitoring of children's finance is associated with improved financial knowledge to deal with debt which ultimately led to lower level of debt. When children are given the opportunity to manage small amounts of money themselves with little parental monitoring, they start to understand financial responsibility better and increase their confidence in the financial decisions they make and their overall financial knowledge (Jorgensen & Salva, 2010).

Parental financial discussions are sometimes referred to parental financial communication in financial socialisation literature, however, the two are not the same and they differ fundamentally. 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 involved in financial decisions and allow input from their children, while in parental financial communication children are informed about family financial matters (Kim & Torquati, 2019). Parental financial discussion is a process where parents discuss openly financial matters, children are

not only considered as receivers of financial information, but they can also play a role of advising their parents. Solheim et al., (2011) found that parental financial discussions during childhood is an important socialisation mechanism of saving and money management for young adults and improves financial knowledge of young adults.

Parental financial communication involves speaking to children about finances without necessarily requiring their inputs. Children are therefore not involved in family financial matters but informed. For example, parents explaining the family spending plan to children so that they are not surprised if certain items are not considered in the household spending plan or not purchased at all. Parental financial communications are tools for educating children about financial issues such as saving, budgeting, investing, consumer skills, avoiding financial problems and building strong foundational financial well-being and financial knowledge (Kim & Torquati, 2019). Kim et al. (2011) found that higher levels of parent communication about child donations were positively associated with both children's saving for the future schooling and their likelihood of donating to charities.

Studies support the view that parental financial teaching influences financial knowledge. Grinstein-Weiss et al. (2012) assert that greater parental teaching is associated with reduced loan delinquency and foreclosure, and later asset accumulation and outcomes on young adults. Homan (2016) found that young adults who received the most parental financial teaching have fewer loans than those who never received such teaching due to high financial knowledge. Similar studies related to financial well-being of young adults also found that parents influence young adults' financial attitudes and knowledge. Moreover, parents who explicitly taught their children were found to have a greater influence on their children financial knowledge (Kim et al., 2012). Buccioli & Veronesi (2014) revealed that parental teaching to save increases the likelihood that an adult will save by 16% and the saving amount by about 30%.

2.3 Financial Knowledge

Financial knowledge is considered a key dimension of financial literacy (Huston, 2010). Other studies used financial knowledge as a synonym of financial literacy (Huang et al., 2013; Bucher-Koenen et al., 2017). However, financial knowledge is different from financial literacy because financial knowledge is information that is learned, organized, represented, and stored in memory. Individuals can retrieve, use, and update their financial knowledge to create inherent and useful property of the knowledge itself and make reasoning and elaboration regarding their financial decisions (Wang, 2009). Thus, financial knowledge refers to the understanding one has of important personal finance concepts, like budgeting and saving. Additionally, for Delavande et al. (2008) financial knowledge is a particular type of capital acquired in life through learning the ability to manage income, expenditure, and savings in a safe way. Financial knowledge has two important components, namely, objective knowledge and subjective knowledge (Allgood & Walstad, 2016). Objective financial knowledge is often referred as actual financial knowledge while subjective financial knowledge is sometimes referred as perceived financial knowledge in literature (Henager & Cude, 2019). Huston (2010) assert that financial knowledge can be categorised into two spheres, namely, knowledge dimension and application dimension. With knowledge dimension referring to knowledge acquired through education and or experience specifically related to essential personal finance concepts and products. While application dimension refers to the ability and confidence to effectively apply or use knowledge related to personal finance and concepts and products. Financial knowledge seems to impact financial practices and outcomes. According to Braunstein & Welch (2002), a deficiency in financial knowledge impacts the day-to-day management of finances as well as the ability to save money for the long term. Robb & Sharpe (2009) assert that financial knowledge is a significant factor in the credit cards decisions of students. A lack of financial knowledge has been associated with behaviours that led to financial mistakes such as over borrowing, high interest rate mortgages, and limited saving and investment (Lusardi, 2008). Young adults need to have the basic financial knowledge and skills to make important personal financial decisions. Financial knowledge is more likely to have a positive effect on young adult's awareness of money, recording expenses, savings attitudes, and financial behaviour (Supanantaroek et al., 2017). 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.

3. Methodology

The philosophical assumptions underlying this study is positivism tradition. This implies an objective epistemology and the ontological belief that there is only one true reality (Saunders et al., 2016). In line with positivism, this study uses existing theory to develop hypotheses, which are tested and confirmed, in whole or part, or refuted. This study uses quantitative approach, as it is more formal and can be greatly controlled in testing the relationship between variables and express or explain a phenomenon in amount or quantity (Gerrish & Lacey, 2006). This study adopts non-experimental design because its objective is to explain the relationship between parental financial socialisation and financial knowledge. This design is also widely used in quantitative research. This study used self-administered questionnaire which were distributed to respondents' homes to collect data. Questionnaire were design in line with the objectives of the study and used existing Likert type scales adopted from literature and also self-constructed scales. The Likert scale consisted of 5-point scales that ranged from strongly disagree (1) to strongly agree (5).

This study focuses 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 facing financial challenges. According to STATSSA (2016) Eastern Cape and Limpopo are the two provinces with high level of poverty and with most municipalities classified as B4 categories which indicates rural area. Intsika Yethu Municipality in Eastern Cape have

the highest poverty in South Africa followed by Greater Tubatse and Fetakgomo in Limpopo. Therefore, the study area is Intsika Yethu and Fetakgomo Tubatse municipalities. The total population for this study is 153 694 young black African adults between the age of 18 and 35 in Fetakgomo Tubatse and Intsika Yethu municipalities, with a sample size of 500 calculated through Yamane (1967) formula, Krejcie & Morgan's (1970) table and considering the recommended sample size for conducting Exploratory Factor Analysis (EFA) and Structural Equation Modelling (SEM) (Tabachnick & Fidell, 2013).

This study used cluster sampling, random sampling, proportionate stratified sampling, and systematic sampling because they afforded all young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities an equal chance to be included in the sample (Babbie, 2013). Cluster sampling is used to divide and group each municipality into wards, villages, households where young black African adults are visited. Random sampling was used to sample wards from each municipality, where a ward number of each ward is written on a piece of paper, folded, placed in a box and picked one by one until a number of desired wards is reached. To ensure enough representation in this study, at least 50% of the wards are selected. Fetakgomo Tubatse Municipality is made up of 39 wards, with 342 villages and 189 269 households. Therefore $(39 \times 0.50) = 19$ wards are selected. While Intsika Yethu Municipality is made of 21 wards, with 214 villages and 40 448 households. Thus, $(21 \times 50\%) = 10$ wards are selected. Proportionate stratified sampling is used to apportion sample size to each municipality and also to each selected ward based on the population proportion percentage. Simple random sampling is applied again to select villages and households in each ward as young black African adults are visited at their homes to collect data. The geographic map was obtained from Fetakgomo Tubatse and Intsika Yethu municipalities which indicates the villages, streets, and location of households. As displayed on the map, the first village from each ward together with the first household is randomly selected, but if there are no respondents that meet the inclusion criteria in the first household, the next household is visited.

Thereafter, a systematic sampling method is used, where households are selected per interval. As the first household was selected randomly, a systematic procedure is followed as per the determined interval (Godwill, 2015). The interval is calculated by taking sample size and divide by sampled wards. In Fetakgomo Tubatse municipality the researcher counted households $(306/19) = 16$ from 1 to 15 from both sides of the street, then the 16th household will be selected. For Intsika Yethu municipality the interval is $(78/10) = 7$, thus the researcher counts from 1 to 6, from both sides of the street, then the 7th household is selected. If no young adults, the next household is visited. This procedure was repeated until a household with young adults is found then the counting starts again. The same procedure is followed on the next village until a sample size is reached. Thereafter the next ward is visited, applying the same procedure until the data collection is completed by reaching the required sample size. A total of 423 young black African adults completed the questionnaire.

This study measured validity and reliability through construct validity and Cronbach alpha. Construct validity was assessed through EFA by conducting a Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity. The acceptable value of KMO which is suitable and adequate for EFA is 0.50 and above. While Bartlett's test of sphericity is significant for EFA if the significance value is $(p < 0.05)$. Factors loadings of ± 0.30 to ± 0.40 are minimally acceptable, values greater than ± 0.50 are generally considered necessary for practical significance (Hair et al., 2014). This study retained a minimum factor loading of .30 for interpretation. Cronbach alpha was used to measure reliability, as is the most widely used reliability measure of internal consistency (VanderStoep & Johnson, 2009). Cronbach alpha with a score of 0.60 and more were accepted and considered to be reliable (Cohen et al., 2018). Data was further analysed through descriptive statistics and SEM. Descriptive statistics described and summarised data by calculating means and standard deviations. SEM was used to test the relationship between parental financial socialisation and financial knowledge. Further SEM was used to construct and test a model for this study.

3.1 Conceptual Model and Hypotheses

To develop conceptual model and hypotheses, this study adopts family financial socialisation theory by Gudmunson & Danes (2011). Figure 1 indicates the conceptual model and five hypotheses of the study.

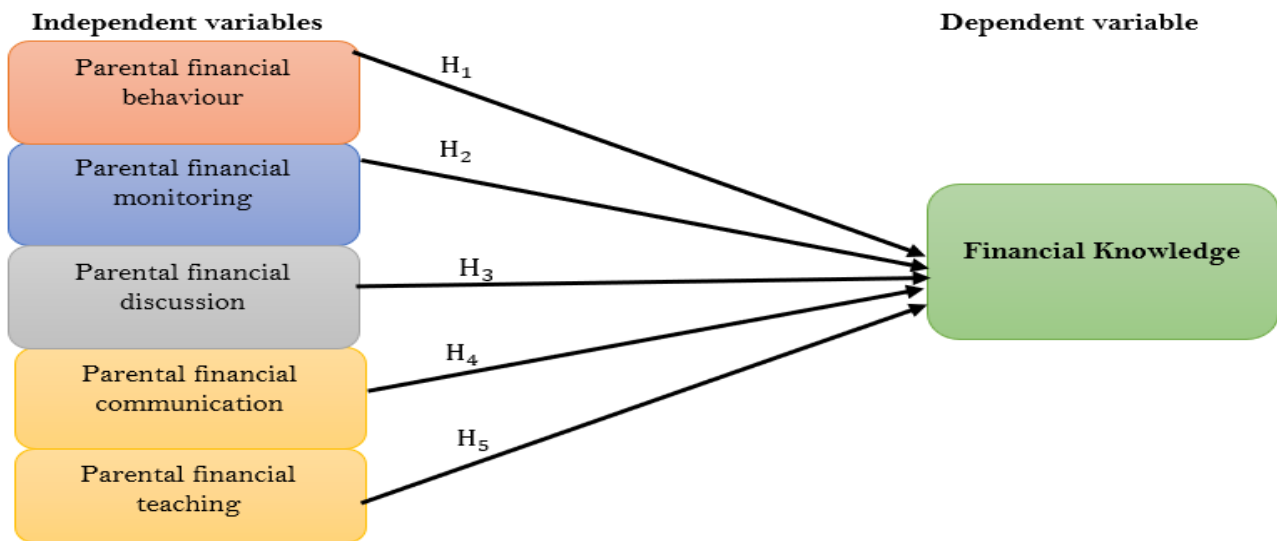


Figure 1: Conceptual model of the study

Source: (Author's construct, 2023)

As depicted in figure 1 the following hypotheses were developed:

- H1: There is a significant positive relationship between parental financial behaviour and financial knowledge.
- H2: There is a significant positive relationship between parental financial monitoring and financial knowledge.
- H3: There is a significant positive relationship between parental financial discussion and financial knowledge.
- H4: There is a significant positive relationship between parental financial communication and financial knowledge.
- H5: There is a significant positive relationship between parental financial teaching and financial knowledge.

4. Results

This section presents the empirical findings and interpretations of the research.

4.1 Descriptive Statistics

Descriptive statistics indicated that majority of the respondents were from Fetakgomo Tubatse municipality (60%) and 40% were from Intsika Yethu municipality. This is in line with this study sample size, where Fetakgomo Tubatse had a large, calculated sample size based on the population. Most of the respondents were female (66.7%) and 33.3% were male. Age was widely spread with all categories attaining at least 20%. This is in line with the population distribution of Fetakgomo Tubatse and Intsika Yethu local municipalities where female population is higher compared to male (STATSSA, 2018). Most respondents were between the ages of 18 to 20 years (28.2%), followed by 31 to 35 years (26.5%), then 26 to 30 years (23.1%) and lastly 21 to 25 years (22.2%). Most respondents were single (28.8%) while a high number were living with their partners (25.2%). This confirms the findings by STATSSA (2018) that there is an increase in a co-habiting (living with a partner) relationships among young adults in South Africa. Majority of respondents indicated that their female parents (62.7%) were more likely to talk about money with them, while male parents (24.2%) are likely to talk to their children about money. Most respondent's parents earn less than R 5 000 (32.2%) and between R 5 000 and R 10 000 (27.8%), while minority earning more than R 20 000 (5.5%). This is in line with the categorisation of Fetakgomo Tubatse and Intsika Yethu as rural and low-income area. For education, most respondents indicated that their parents hold a matric (28.0%) and a high number indicated that their parents do not have a matric (23.3%), those whose parents have diploma (15.7%), degree (14.4%), honours degree (10.6%), masters (7.6%) and doctorate (0.4%). As for occupation most respondents' parents were general workers (12.5%) and self-employed (12.3%). However, there is a high number of parents who are unemployed (11.0%). This also confirms the reality of a persisting high unemployment rate in South Africa.

4.2. Validity and Reliability

To assess the suitability of data to conduct factor analysis, KMO and Bartlett's test of sphericity was used in this study. Table 1 shows the results of the KMO and Bartlett's test of sphericity.

Table 1: KMO and Bartlett's Test

Factors	Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	Bartlett's Test of Sphericity		
		Approx. Chi-Square	df	Sig.
Parental financial behaviour	0.755	833.565	8	0.000
Parental financial monitoring	0.866	3412.603	43	0.000
Parental financial discussion	0.633	329.856	12	0.000
Parental financial communication	0.969	2126.656	14	0.000
Parental financial teaching	0.768	1924.345	13	0.002
Financial knowledge	0.845	1234.302	86	0.000

Source: Author's construct (2023), SPSS

Table 1 showed that the KMO for all factors ranged from 0.633 to 0.969, above 0.60. The p-value of the Bartlett's test for all factors ($p=0.000$) is smaller than 0.05, is significant. This result is an indication that the correlation structure of construct is adequate to conduct a factor analysis on the items and that all factors are regarded as valid and reliable.

Table 2 shows the results of the EFA, reliability by depicting the Cronbach's alphas, and descriptive statistics for the constructs and factors of the study.

Table 2: Validity, reliability, and descriptive statistics results

Factors	EFA factor loadings			CA	Descriptive statistics	
	Items	Highest	Lowest	α	μ	SD
Parental financial behaviour	5	0.945	0.631	0.946	3.31	1.24
Parental financial monitoring	4	0.938	0.419	0.860	3.23	1.17
Parental financial discussion	5	0.879	0.555	0.923	3.12	1.26
Parental financial communication	4	0.927	0.665	0.945	2.90	1.38
Parental financial teaching	6	0.951	0.320	0.909	3.03	1.29
Financial knowledge	10	0.976	0.398	0.934	3.20	1.14

Source: Author's construct (2023), SPSS

Table 2 indicated that six factors were extracted by the EFA, with all items loaded onto the factors as expected, with loadings of above 0.30. The overall factor loadings range from 0.320 to 0.976. The Cronbach's alpha coefficients were above 0.6 and were acceptable and considered reliable. The descriptive statistics provided the means and standard deviation. Regarding the means, majority of respondents agreed with the statements measuring parental financial behaviour (3.31), parental financial monitoring (3.23), financial knowledge (3.20), parental financial discussion (3.12), parental financial teaching (3.03) and disagreed with statements measuring parental financial communication (2.90). The standard deviations of all factors are high showing that the respondents' responses varied. However, parental financial discussions had the highest standard deviation of 1.38 indicating that the responses varied mostly with regard to this factor's statements.

4.3. Structural Equation Modelling

The structural equation modelling (SEM) was used in this study. SEM offers numerous advantages over conventional analysis, including greater flexibility regarding assumptions, inclusion of latent variables into the analyses and allows the study to measure any combination of relationships by examining a series of dependent relationships simultaneously while considering potential errors of measurement among all variables (Kline, 2005). Therefore, for this study SEM is used to test the relationship between parental financial socialisation variables (independent variables) such as parental financial behaviour, parental financial monitoring, parental financial discussion, parental financial communication, and parental financial teaching and financial knowledge (dependent variable). SEM is also used to test the model for this study. Table 3 shows the regression weights for model variables.

Table 3: Regression weight of the financial knowledge model
Regression Weights: (Group number 1- Default model)

	Estimate	S.E.	C.R.	S.R.W.	p
Financial knowledge <-- Parental financial behaviour	0.190	0.035	5.467	0.227	0.000
Financial knowledge <-- Parental financial monitoring	-0.160	0.034	4.651	0.187	0.002
Financial knowledge <-- Parental financial discussion	0.230	0.041	5.985	0.251	0.000
Financial knowledge <-- Parental financial communication	0.452	0.131	6.179	0.413	0.000
Financial knowledge <-- Parental financial teaching	0.153	0.111	4.119	0.166	0.001

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%***)

Table 3 indicated that the casual relationships have a p value less than 0.05 indicating 95% or more level of confidence. The estimates range from 0.153 to 0.452. Parental financial behaviour has a significant positive linear relationship to financial knowledge and its contribution is 0.190 and a significant p value of 0.000. This means that an increase in the value of parental financial behaviour leads to an increase in the value of financial knowledge. Parental financial monitoring has a negative significant influence on financial knowledge and its contribution is -0.160 and a significant p value of 0.002. This meant that an increase in the value of parental financial monitoring led to a decrease in the value of financial knowledge. Parental financial discussion was observed to have a significant influence on financial knowledge and its contribution is 0.230 and a significant p value of 0.000. Thus, an increase in the value of parental financial discussion leads to an increase in the value of financial knowledge. Parental financial teaching has a significant positive relationship to financial knowledge and its contribution is 0.153 with a significant p value of 0.000. Therefore, an increase in the value of parental financial teaching leads to an increase in the value of financial knowledge. It is observed that parental financial communication has the highest contribution to financial knowledge (0.452 or approximately 45%). Table 4 indicates the squared multiple regression correlations of the financial knowledge model.

Table 4: Squared multiple regression correlations of the financial knowledge model
Squared multiple correlations: (Group number 1- Default model)

	Estimate
Financial knowledge	0.491

Table 4 indicated that the independent variables explain 49% ($R^2=0.491$) of the financial knowledge model. The R^2 of financial knowledge model represents large practical effect size (Kraft, 2020). This means that the financial knowledge model is valid, reliable, and acceptable.

The goodness of fit indices was also determined. Fit indices are used to inform the researcher how closely the data fit the model (Hair et al., 2014). Table 5 indicates the results of the financial knowledge model goodness of fit indices.

Table 5: 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: Author's construct (2023), AMOS

As indicated in table 5, the goodness of fit indices showed a good fit between the data and the financial knowledge model. All the goodness of fit indices confirm 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 and TLI = 0.901). This means that the model fits the data being tested and is valid, reliable, and acceptable. Figure 2 presents the parental financial socialisation model.

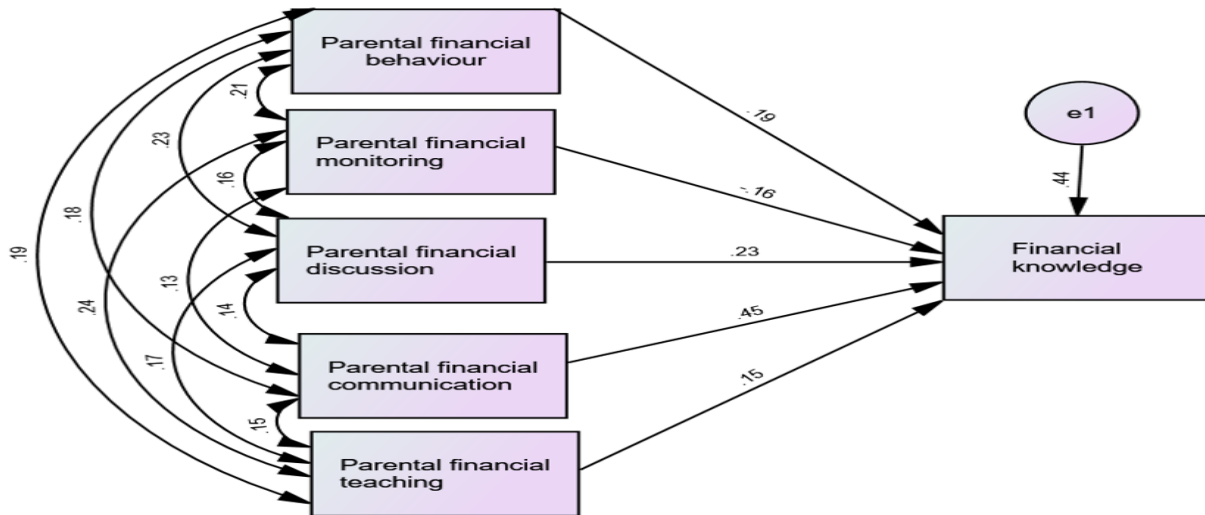


Figure 2: Parental financial socialisation model

Source: Author's construct (2023), AMOS

Considering the results of the SEM and the model the decision to accept or reject hypothesis is indicated in table 6.

Table 6: Hypotheses decision

Hypotheses	Decision
H1: There is a significant positive relationship between parental financial behaviour and financial knowledge.	Accept
H2: There is a significant positive relationship between parental financial monitoring and financial knowledge.	Reject
H3: There is a significant positive relationship between parental financial discussion and financial knowledge.	Accept
H4: There is a significant positive relationship between parental financial communication and financial knowledge.	Accept
H5: There is a significant positive relationship between parental financial teaching and financial knowledge.	Accept

Source: Author's construct (2023)

SEM results shown in figure 2 showed that parental financial behaviour, parental financial discussion, parental financial communication, and parental financial teaching had significant positive impact on financial knowledge. This may be because the sample was adequate enough to compensate for any deficiency in responses.

It is observed that parental financial communication had the strongest impact on financial knowledge. This result was surprising because parents in rural and low-income areas in South Africa uphold cultural values and believe that discussing financial matters with children is a taboo. So, it was interesting to see that parental financial communication had a strongest impact.

Parental financial monitoring had a significant negative impact on financial knowledge. This was somehow expected as parents in rural and low-income areas apply rigid parenting style which is high on control and monitoring of children behaviour.

Therefore, hypotheses H1, H3, H4 and H5 were accepted, while H2 was rejected. The hypotheses decisions were indicated in table 6. Thus, it is concluded that parental financial socialisation has impact on financial knowledge of young black African adults in rural and low-income area in South Africa.

This study showed mixed results, on one hand in support and on the other hand refuting the previous empirical studies. The results of this study are consistent with the findings of previous studies in parental financial behaviour by showing that there is a significant positive relationship between **parental financial behaviour** and financial knowledge. Garrison and Gutter (2010) also found that parental financial behaviour is influential in developing financial knowledge of children that can be sustained into the future. Tang (2017) found that parents' financial behaviour will also influence their children development of general skills and financial knowledge during adolescence. This study used the same methods as that of Garrison and Gutter (2010) and Tang (2017), maybe this explains why the results are consistent. However, the sample characteristics are completely different, as this study focused on young adults in rural and low-income areas.

This study contradicted previous studies relating to **parental financial monitoring** by showing that there is no significant positive relationship between parental financial monitoring and financial knowledge. Norvilitis & MacLean (2010) found that parental monitoring of children's finance is associated with improved financial knowledge.

Jorgensen & Salva (2010) found that parental financial monitoring leads to better understanding of financial responsibility and increased confidence in financial decision-making and financial knowledge of young adults. The differences in the results may be because parents in rural and low-income areas, especially in South Africa monitored and controlled their children's finances without necessary empowering them to make sound financial decisions. Culture has a role to play here because parents from cultural background believe in controlling not monitoring.

For **parental financial discussions**, this study agrees with previous studies by showing that there is a significant positive relationship between parental financial discussions and financial knowledge. Solheim et al. (2011) found that parental financial discussions during childhood is an important socialisation mechanism of saving and money management for young adults and improves financial knowledge of young adults. This is somehow surprising that parents in rural and low-income areas engaged in parental financial discussions with their children which translated in their children being financial knowledgeable. Parents in rural and low-income areas still uphold culture and believes that money issues should not be discussed with children.

Similarly, this study is consistent with other studies in **parental financial communication** by showing that there is a significant positive relationship between parental financial communication and financial knowledge. Kim & Torquati (2019) found that parental financial communication is a tool for educating children about financial issues such as saving, budgeting, investing, consumer skills, avoiding financial problems and building strong foundational financial well-being and financial knowledge. This study results are the same with other studies because parents in rural and low-income areas in South Africa appears to be moving away from cultural notion and believe that finances should not be communicated with children.

Furthermore, this study supports the findings of previous studies in **parental financial teaching** by showing that there is a positive significant relationship between parental financial teaching and financial knowledge. Kim et al. (2012) found that parents who explicitly taught their children about finances were found to have a greater influence on their children financial knowledge. The field of parental financial teaching is still at infancy in South Africa but interestingly parents in South Africa, especially in rural and low-income areas are moving in line with what other parents in developed countries are doing which is teaching their children about financial matters and improving their financial knowledge.

5. Conclusion and Recommendations

This study through SEM investigated the impact of parental financial behaviour, parental financial monitoring, parental financial discussion, parental financial communication, and parental financial teaching on financial knowledge. SEM was also used to propose a financial knowledge model for this study. The validity and reliability of the proposed model was performed through the goodness of fit indices which confirmed that the data fit the model significantly. This study excluded other potential factors which may affect parental financial socialisation because it was impossible to include more factors and it was assumed that parents are capable to teach, discuss, communicate financial matters with their children. SEM results showed that parental financial behaviour, parental financial discussion, parental financial communication, and parental financial teaching had significant positive impact on financial knowledge. It is observed that parental financial communication had the strongest impact on financial knowledge. Parental financial monitoring had a significant negative impact on financial knowledge. Thus, it is concluded that parental financial socialisation has impact on financial knowledge of young black African adults in rural and low-income area in South Africa. This study produced mixed results, in support and refuting previous empirical studies. This showed that the field of parental financial socialisation still need more studies to understand the impact it has on financial knowledge. Young black African adults' financial knowledge is important to ensure healthy financial well-being. Thus, young black African adults need to have the basic financial knowledge to make imperative financial decisions. Parents have a bigger role to play in improving financial knowledge of young black African adults. Parents should be keenly aware that their actions and behaviours around money, and their own financial decision-making, will likely leave a lasting impression.

Therefore, this study recommends that parents should increase the amount of direct financial communication between them and their children. This may be done through including the child in the family financial matters along with discussing situations and appropriate alternatives with them. This may also include verbally discussing their decision-making process when making a purchase with the child and include children in household budget to ensure that young black African adults improve their financial knowledge. Parents are also advised to seek out and encourage children and young adults to partake in formal financial education opportunities. Financial educators, financial service professionals such as financial institutions, financial counsellors and planners, and policy makers should be interested in the findings of this study. Financial educators should rigorously plan, design, implement financial education programmes for young black African adults in rural and low-income areas to ensure that they are able to provide the most positive impact possible on financial knowledge of young black African adults. 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. Similarly, financial educators, financial practitioners and government should design financial programmes targeted to parents with less than matric and tertiary education levels to enhance their financial knowledge to improve financial knowledge and financial well-being of young adults.

This study was not without limitations. Due to the low levels of general literacy among the respondents, which negatively affected data collection; some young adults did not understand the questionnaire and withdrew from participating in the study. Furthermore, even though confidentiality and anonymity were guaranteed, respondents were reluctant to participate in the study. They feared exposing their financial position and displayed a lack of trust.

This study contributed to the body of knowledge of parental financial socialisation and financial knowledge by showing that parental financial socialisation has impact on financial knowledge of young black African adults in rural and low-income area in South Africa. This was done through SEM, which was also a methodology contribution as there is no study which has done this before. This study also provided recommendations to parents and financial educators in quest to improve financial knowledge of young black African adults in rural and low-income areas in South Africa.

References

- Agarwal, S.J., Driscoll, J.C., Gabaix, X. & Laibson, D. (2009). The age of reason: financial decisions over the life cycle with implications for regulation, *Brookings Papers on Economic Activity*, 2: 51-117.
- Allgood, S., & Walstad, W.B. (2016). The effects of perceived and actual financial literacy on financial behaviours, *Economics Inquiry*, 54(1), 675-697.
- Antoni, X.L. (2018). The role of family structure and financial socialisation in influencing students' financial capabilities, PhD thesis. Nelson Mandela Metropolitan University, Port Elizabeth.
- Antoni, X.L. (2014). Financial literacy and behaviour among the black community in Nelson Mandela Bay, MCom. Nelson Mandela Metropolitan University. Port Elizabeth.
- Antoni, X.L., Rootman, C., & Struwig, F.W. (2019). The influence of parental financial socialisation techniques on student financial behaviour, *International Journal of Economics and Finance Studies*, 11(2), 72-88. <https://doi.org/10.34109/ijefs.201911205p>
- Antoni, X.L., & Saayman, M. (2021). The influence of financial socialisation mechanisms on young financial professionals' financial literacy levels in the Eastern Cape, *Academy of Accounting and Financial Studies Journal*, 25(3), 1-15.
- Babbie, E. (2013). *The Practice of Social Science Research*. International edition. 13th edition. Wadsworth: Cengage Learning.
- Braunstein, S., & Welch, C. (2002). Financial literacy: An overview of practice, research, and policy. Available from: <http://www.federalreserve.gov/pubs/bulletin/2002/1102lead.pdf> [Accessed 15 May 2019].
- Buccioli, A., & Veronesi, M. (2014). Teaching children to save: what is the best strategy for lifetime savings? *Journal of Economic and Psychology*, 45, 1-17.
- Bucher-Koenen, T., Lusardi, A., Alessie, R., Van Rooij, M. (2017). How financially literate are women? An overview and new insights, *The Journal of Consumer Affairs*, 51(2), 255-283.
- Cameron, M.P., Calderwood, R., Cox, A., Lim, S., & Yamaoka, M. (2014). Factors associated with financial literacy among high school students in New Zealand, *International Review of Economics Education*, 16, 12-21.
- Clarke, M.C., Heaton, M.B., Israelsen, C.L. & Eggett, D.L. (2005). The acquisition of family financial roles and responsibilities, *Family and Consumer Sciences Research Journal*, 33(4), 321-340.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education*. 8th edition. London: Routledge.
- Delavande, A., Rohwedder, S., & Wills, R.J. (2008). Retirement planning and the role of financial literacy and cognition, Working Paper 2008-190. MI Retirement Research Center.
- Finmark Trust. (2019). Finscope South Africa 2019 pocket guide. Available from: https://finmark.org.za/system/documents/files/000/000/242/original/FinScope_SA_2019_Pocket_Guide_2020.pdf?1604679365#:~:text=FinScope%20gives%20some%20clues%20on,of%20the%20COVID%2D19%20pandemic. [Accessed 30 March 2022].
- French, D., & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households, *International Review of Financial Analysis*, 48, 1-11.
- Friedline, T. (2015). A development perspective on children's economic agency, *Journal of Consumer Affairs*, 49(1), 39-68.
- Garg, N., & Singh, S. (2018). Financial literacy among youth, *International Journal of Social Economics*, 45(1), 173-185.
- Garrison, S.T., & Gutter, M.S. (2010). Gender differences in financial socialisation and willingness to take financial risks, *Journal of Financial Counselling and Planning*, 21(2), 60-83.
- Gerrish, K., & Lacey, A. (2006). *The research process in nursing*. 5th ed. London: Blackwell.
- Godwill, E.A. (2015). *Fundamentals of research methodology: a holistic guide for research completion, management, validation and ethics*. New York: Nova Publishers.
- Grinstein-Weiss, M., Spader, J.S., Yeo, Y.H., Key, C.C., & Freeze, E.B. (2012). Loan performance among low-income households: does prior parental teaching of money management matter? *Social Work Research*, 36(4), 257-270.
- Grohmann, A. (2018). Financial literacy and financial behaviour: evidence from the emerging Asian middle class, *Pacific-Basin Finance Journal*, 48, 129-143.
- Grohmann, A., Kouwenberg, R. & Menkhoff, L. (2015). Childhood roots of financial literacy, *Journal of Economic Psychology*, 51, 114-113.
- Gudmunson, C.G., & Danes, S.M. (2011). Family financial socialisation: theory and critical review, *Journal of Family and Economic Issues*, 32, 644-667.
- Hair, J.F. Jr., Black, W.C., Babin, B.J., & Anderson, R. E. (2014). *Multivariate data analysis*. 7th edition. Harlow: Pearson.
- Henager, R., & Cude, B.J. (2019). Financial literacy of high school graduates: long- and short-term financial behaviour by age group, *Journal of Family and Economic Issues*, 40, 564-575.

- Homan, A.M. (2016). The influence of parental financial teaching on saving and borrowing behaviour. Msc thesis. University of Groningen.
- Huang, J., Nam, Y., & Sherraden, M.S. (2013). Financial knowledge and child development account policy: a test of financial capability, *The Journal of Consumer Affairs*, 47(1), 1-26.
- Hudson, C., Young, J., Anong, S., Hudson, E. & Davis, E. (2017). African American financial socialisation, *The Review of Black Political Economy*, 44(3-4), 285-302.
- Huston, S.J. (2010). Measuring financial literacy, *The Journal of Consumer Affairs*, 44(2), 296-316.
- Iqbal, H.M. (2015). Educational theories of cognitive development, *International Encyclopedia of the Social & Behavioural Sciences*, 4, 51-57.
- James, D. (2014). Deeper into a hole? Borrowing and lending in South Africa, *Current Anthropology*, 55(9), 17-28.
- Jorgensen, B.L., & Savla, J. (2010). Financial literacy of young adults: the importance of parental socialisation, *Family Relations*, 59, 465-478.
- Kim, J., Chatterjee, S., & Kim, J.E. (2012). Debt burden of young adults in the United States, *Journal of financial Counselling and Planning*, 23(2), 55-67.
- Kim, J., LaTaillade, J. & Kim, H. (2011). Family processes and adolescents' financial behaviors, *Journal of Family and Economic Issues*, 32, 668-679.
- Kim, J.H., & Torquati, J. (2019). Financial socialisation of college students: domain-general and domain-specific perspectives, *Journal of Family and Economic Issues*, 40(2), 226-236.
- Kline, R.B. (2005). *Principles and practice of structural equation modeling*. 2nd edition. New York: The Guilford Press.
- Kraft, M.A. (2020). Interpreting effect sizes of education interventions. *Educational Researcher*, 49(4), 241-253.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining sample size for research activities, *Educational and Psychological Measurement*, 30, 607-610.
- Loke, Y.J. (2015). Financial knowledge and behaviour of working adults in Malaysia, *The Journal of Applied Economic Research*, 9(1): 18-38.
- Lusardi, A. (2008). Financial literacy: an essential tool for informed consumer choice? Working Paper 14084. *National Bureau of Economic Research*.
- Lusardi, A., Mitchell, O. & Curto, V. (2010). Financial literacy among the young, *Journal of Consumer Affairs*, 44 (2), 358-380.
- Moschis, G.P., & Churchill, G.A. (1978). Consumer socialisation: A theoretical and empirical analysis, *Journal of Marketing Research*, 15(4), 599-609.
- Nomlala, B. (2021). Financial socialisation of accounting students in South Africa, *International Journal of Finance & Banking Studies*, 10(2), 1-15.
- Norvilitis, J.M., & MacLean, M.G. (2010). The role of parents in college students' financial behaviours and attitudes, *Journal of Economic Psychology*, 31(1), 55-63.
- Otto, A.M.C. (2009). The economic psychology of adolescent saving. PhD thesis, University of Exeter: Exeter.
- Piaget, J. (1952). *The origin of intelligence in children*. New York: International University Press.
- Ramavhea, G., Fouche, J. & Van der Walt, F. (2017). Financial literacy of undergraduate students a case study of a public university in South Africa, *International Journal of Economics and Finance Studies*, 9(2), 48-65.
- Rea, J.K., Danes, S.M., Serido, J., Borden, L.M., & Shim, S. (2019). Being able to support yourself: young adults' meaning of financial well-being through family financial socialisation, *Journal of Family and Economic Issues*, 40(2), 250-268.
- Robb, C.A., & Sharpe, D.L. (2009). Effect of personal financial knowledge on college students' credit card behaviour, *Journal of Financial Counselling and Planning*, 20 (1), 25-43.
- Sallie, N. (2015). The impact of socialisation factors on financial literacy and financial security amongst employees in the financial services industry. MBA thesis. University of Pretoria, Pretoria.
- Saunders, M.N.K., Lewis, P., & Thornhill, A. (2016). *Research methods for business students*. 7th edition. Harlow: Pearson.
- Serido, J., & Deenanath, V. (2016). *Financial parenting: promoting financial self-reliance of young consumers*. *Handbook of consumer finance research*. 2nd edition. New York: Springer Science and Business Media.
- Shim, S., Barber, B.L., Card, N.A., Xiao, J.J., & Serido, J. (2010). Financial socialisation of first-year college students: the roles of parents, and education, *Journal of Youth and Adolescence*, 39(12), 1457-1470.
- Solheim, C. A., Zuiker, V. S., & Levchenko, P. (2011). Financial socialization family pathways: reflections from college students' narratives. *Family Science Review*, 16, 97-112.
- Supanantaroeok, S., Lensink, R. & Hansen, N. (2017). The impact of social and financial education on savings attitudes and behaviour among primary school children in Uganda, *Evaluation Review*, 41(6), 511-541.
- STATSSA. (2018). Poverty trends in South Africa: an examination of absolute poverty between 2006 and 2015. Report No: 03-10-06. Available from: <http://www.statssa.gov.za/publications/Report-03-10-06/Report-03-10-062015.pdf> [Accessed 18 March 2019].
- STATSSA. (2016). Community survey 2016, statistical release P0301. Available from: http://cs2016.statssa.gov.za/wp-content/uploads/2016/07/NT-30-06-2016-RELEASE-for-CS-2016_Statistical-releas_1-July-2016.pdf [Accessed 12 May 2019].
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using multivariate statistics*. 6th edition. Boston, MA: Allyn & Bacon.
- Tang, N. (2017). Like father like son: how does parents' financial behaviour affect their children's financial behaviour? *The Journal of Consumer Affairs*, 51(2), 284-311.
- VanderStoep, S.W. & Johnson, D. D. (2009). *Research methods for everyday life: blending qualitative and quantitative approaches*. San Francisco: Wiley.
- Wang, A. (2009). Interplay of investors' financial knowledge and risk taking, *The Journal of Behavioural Finance*, 10: 204-213.
- World Bank. (2022). Inequality in Southern Africa: an assessment of the Southern African customs union. Available from: <https://documents1.worldbank.org/curated/en/099125303072236903/pdf/P1649270c02a1f06b0a3ae02e57eadd7a82.pdf> [Accessed 30 March 2022].
- Yamane, T. 1967. *Statistics: An Introductory Analysis*, 2nd edition. New York: Harper and Row.

Vygotsky, L.S. (1956). *Thinking and speech: selected psychological studies*, Moscow: Izdatel'stov APN RSFSR.

Zhu, A.Y.F., Yu, C.W.M., & Chou, L. (2019). Improving financial literacy in secondary school students: a randomised experiment, *Youth & Society*, 1-24.

This is an Open Access article distributed under the terms of the Creative Commons Attribution Licence

