

FINANCIAL LITERACY OF YOUNG BLACK AFRICAN ADULTS IN RURAL AND LOW-INCOME AREAS IN SOUTH AFRICA¹

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Abstract

This study determined the level of financial literacy of young black African adults in rural and low-income areas in South Africa. This study adopted a quantitative research approach and used a self-administered questionnaire to collect primary data among young black African adults in Fetakgomo Tubatse and Intsika Yethu local municipalities as these municipalities were considered the most rural and low-income areas in South Africa. Young black African adults' level of financial literacy was found to be moderate in terms of financial knowledge and decision-making, but low in financial behaviour and financial attitude. Furthermore, young black African adults performed well concerning Financial decision-making. However, the overall level of Financial literacy amongst young black African adults was low. This has implications for the financial management of young black African adults. This study recommended strategies to improve the financial literacy of young black African adults in Fetakgomo Tubatse and Intsika Yethu municipalities.

Keywords: financial education, financial knowledge, quantitative analysis.

JEL Classification: D14; G51; G53

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1. Introduction

Poor financial management 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). Studies (Lusardi et al., 2010; Hudson et al., 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. Young black African adults in rural and low-income areas in South Africa are financially vulnerable, struggling to keep up with their debt repayments and have low levels of knowledge regarding issues like bad debt and are more likely to experience financial problems (Antoni, 2014; Finmark, 2019; BusinessTech, 2021). Financial literacy can remedy this situation because if young black African adults are financially literate, they will be able to manage their finances effectively. Financial literacy is about empowering individuals to take better and appropriate financial decisions. While many developed countries have expanded efforts to investigate financial literacy, there is a paucity of literature on the financial literacy of young adults. Studies on young adults' financial literacy globally focused on the level of financial literacy of students and professionals (Flores, 2014; Breitbach & Walstad, 2016; Arceo-Gomez & Villagomez, 2017; Ergun, 2018; Millen & Stacey, 2022; Shyamala & Mahesh, 2022; Batizani & Questishat, 2022). There are also notable studies that investigated financial literacy in South Africa however also these studies focused on students (Symanowitz, 2006; Louw, 2009; Shambare & Rugimbana, 2012; Botha, 2013; Louw, Fouche & Oberholzer, 2013; Ramavhea, Fouche & van der Walt, 2017; Smit, 2021). This unintentionally excluded young adults who are not employed and also those who are not in universities or colleges. The situation is worse in developing countries, especially in rural and low-income areas and black communities (Matemane, 2018). There is no study that the researcher is aware of that focused

on financial literacy of young black African adults in rural and low-income areas in South Africa. This makes it important to investigate financial literacy of young black African adults in rural and low-income areas in South Africa. The purpose of this study is to determine the level of financial literacy of young black African adults in rural and low-income areas in South Africa. Financial literacy was measured through financial knowledge, financial behaviour, financial attitude, and financial decision-making. Therefore, the hypothesis for this study was formulated as follows:

H1: young black African adults are financial literate.

The remainder of this article is structured as follows: Sections 2 provides literature review. Section 3 explores research and methodology of the study. Section 4 covers analysis and findings the study. Section 5 provides conclusions.

2. Literature Review

2.1. Theoretical Framework

This study adopted theories from the traditional finance, namely, life-cycle savings hypothesis and behavioural finance, namely, theory of planned behaviour. Traditional finance theory assumes that consumers are fully informed and can make rational choices in their long-term financial planning to maximize their utilities. While behavioural finance theory, which was borrowed from the field of psychology to explain human behaviour, specifically financial behaviour, indicate that the behaviours of individuals in theory differ from their behaviours in practice.

2.1.1. Life-cycle Savings Hypothesis

Modigliani and Brumberg (1954) introduced the life-cycle hypothesis of saving as an extension of the permanent income hypothesis. 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). 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.

2.1.2. Theory of planned behaviour

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. 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). The theory of planned behaviour has been supported in empirical studies. 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. 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.

2.2. 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).

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. Garman and Fogue (1988) assert that financial literacy encompasses knowing the facts and having the vocabulary to manage one's finances successfully. 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. 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. Remund (2010) reviewed financial literacy studies and 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. 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. The process of becoming financially literate is long and complex, and requires a combination of financial knowledge, skills, and attitude. To measure financial literacy effectively all four domains of financial literacy must be included. This study measured financial literacy through financial knowledge, financial behaviour, financial attitude, and financial decision-making.

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. 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). 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). 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). 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 (Supanantarook , Lensink, & Hansen, 2017). According to Letkiewicz and Fox (2014), financial literacy is associated with asset accumulation, an increase in net worth, and saving.

Financial behaviour is a human behaviour that is related to money management (Xiao, 2008). 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 stressors such as debts and income shocks have been associated with negative financial behaviours (Fan, 2017). 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). Financial behaviour appears to have consequences not only for individuals' finances, but also their health. Financial behaviour

is the key antecedent in predicting financial well-being (Rahman et al., 2021). Accordingly, Chavali, Mohan, and Ahmed (2021) found that financial behaviour has a significant impact on financial well-being.

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). 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). 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).

Financial decision-making is an important element of financial literacy and achieving sustainable financial well-being. Thus, young black African adults need to make sound financial decisions to avoid financial problems and to effectively manage finances wealth (Sirsch et al., 2020). Financial decision-making determines how much money is saved, how individuals financial resources are invested, what investment products are utilized, how much risk is taken, and therefore how much return can be achieved. These actions, in turn, directly lead to differences in individuals' wealth (Xu & Yao, 2022). Individuals' financial decisions are influenced by various settings, conditions, and changes over time. Financial decision arrangements may vary by the types of financial decisions, e.g., small vs large purchases, bill payment, savings, investing, and financial planning (Kim, Gutter & Spangler, 2017). Young black African adults in rural and low-income areas in South Africa should take financial decision-making seriously to ensure that they maintain and sustain their financial well-being in adulthood.

3. Research and methodology

The current study adopted the quantitative research approach to investigate the level of financial literacy of young black African adults in rural and low-income area in South Africa. The specific study area where data was collected is Fetakgomo Tubatse and Intsika Yethu local municipalities as they are considered the most rural and low-income area in South Africa as per the categorisation by the StatsSA (2016). Therefore, the target population is young black young black African adults between the age of 18 and 35 in Fetakgomo Tubatse and Intsika Yethu municipalities. This study used self-administered questionnaire which were distributed to respondents' homes to collect data. This questionnaire was designed with the research objective in mind and was also piloted and also sent to experts in the field of financial literacy to review and suggest any changes to ensure that it will measure what it intends to measure. Questionnaire was in a Likert scale format.

This study used several sampling methods to ensure that a representative sample size is selected. These methods are purposive sampling, cluster sampling, and random sampling (Babbie, 2013). Purposive sampling was used to select Fetakgomo Tubatse and Intsika Yethu municipalities. Cluster sampling was used to divide and group each municipality into wards, villages, and households. Random sampling was used to sample 50% of wards for each municipality, 19 wards were sampled for Fetakgomo Tubatse and 10 wards for Intsika Yethu. Thereafter, random sampling was used again to sample villages, households, and young black African adults, who were visited at their homes but if the young African adult is not available the next household was visited. This procedure was followed until the sample size is reached. The sample size for this study was calculated and set at 500. This was done through Yamane (1967) formula to calculate sample size. This sample size was also good enough to conduct Exploratory Factor Analysis (EFA). A total of 423 young black African adults completed the questionnaires, giving a response rate of 94% which was good and acceptable.

Data was analysed through EFA and descriptive statistics. However, before data was analysed, construct validity and reliability were conducted. Construct validity was assessed through EFA by performing 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 ($p < 0.05$). 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, Manion & Morrison, 2018). EFA summarised data and grouped variables that are correlated together and ensure that data is ready for further analysis. Descriptive statistics tested the hypothesis of the study.

4. Analysis and discussions

To assess the suitability of data to conduct EFA, 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	Bartlett’s Test of Sphericity		
	Measure of Sampling Adequacy	Chi-Square	df	Sig.
Financial knowledge	0.734	845.654	9	0.000
Financial behaviour	0.766	3216.564	46	0.000
Financial attitude	0.624	336.487	13	0.000
Financial decision-making	0.867	2567.345	16	0.000

Source: SPSS

Table 1 showed that the KMO for all factors ranged from 0.624 to 0.867, above 0.60. The p-value of Bartlett’s test for all factors ($p=0.000$) is smaller than 0.05, which is significant. This result is an indication that the correlation structure of the construct is adequate to conduct a factor analysis on the items and that all factors are regarded as valid and reliable. Therefore, EFA can be conducted.

Table 2 shows the results of the EFA, reliability by depicting 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
Financial knowledge	6	0.965	0.546	0.946	3.46	1.24
Financial behaviour	7	0.846	0.334	0.860	3.14	1.17
Financial attitude	8	0.836	0.655	0.923	3.13	1.26
Financial decision-making	5	0.934	0.678	0.945	3.90	1.39

Source: SPSS

Table 2 indicated that four 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 0.334 to 0.965. 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 financial decision-making (3.90), financial knowledge (3.46), financial behaviour (3.14), financial attitude (3.13). The standard deviations of all factors are high showing that the respondents' responses varied. However, financial decision-making had the highest standard deviation of 1.39 indicating that the responses varied mostly about this factor's statements. Therefore, data was prepared and ready for further analysis. Thus, the hypothesis for this study can be tested.

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 3 shows the scores for the components of *Financial literacy*.

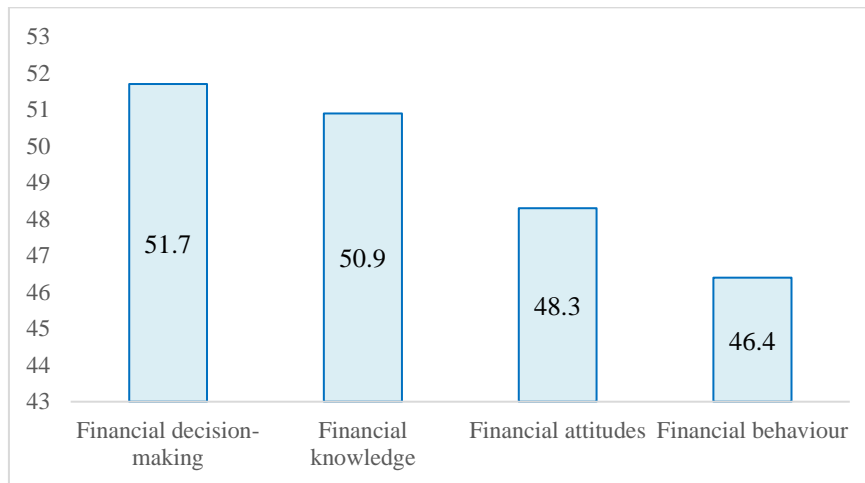
Table 3
Scores for components of *Financial literacy*

Component	Disagree %	Neutral %	Agree %
Financial knowledge	36.7	12.4	50.9
Financial behaviour	43.3	10.2	46.4
Financial attitude	39.5	12.2	48.3
Financial decision-making	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 1 indicates the summary of scores for each component of *Financial literacy*.

Figure 1
Summary of *Financial literacy* scores



Source: SPSS

Figure 1 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 4 illustrates the overall level of *Financial literacy*, which was determined by averaging the score for all components.

Table 4

Overall Financial literacy

Components	Score %
Financial knowledge	50.9
Financial behaviour	46.4
Financial attitude	48.3
Financial decision-making	51.7
Overall Financial literacy	49.3

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 5.

Table 5

Hypothesis decision for *Financial literacy*

Hypothesis	Results
H1: Young black African adults are financially literate.	Rejected

Source: Author's compilation

Therefore, based on Table 5, hypothesis H1 was rejected. This meant that young black African adults in Fetakgomo Tubatse and Intsika Yethu are financially illiterate. This result is consistent with that of other studies that found low levels of financial literacy among 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 reason why this study's results differ from others might be due to its focus on young black African adults living in rural and low-income areas, while other studies focused on young professionals and students from various 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.

5. Conclusions

The 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 decision-making, but low in financial behaviour and financial attitude. Furthermore, young black African adults performed well with regard to *Financial decision-making*. This study contributed to existing knowledge by showing that the overall level of *Financial literacy* amongst young black African adults was 49.3%, which is low. This study's results also contribute to the body of knowledge by showing the development of the life cycle saving hypothesis and theory of planned behaviour by providing an understanding of financial literacy. This study produced mixed results, on one hand, it is consistent with those studies that found low levels of financial literacy among young adults, while on the other hand inconsistent with those that found medium and high levels of financial literacy. Therefore, this study recommends that more studies be conducted on financial literacy, especially in rural and low-income areas in developing countries. Furthermore, it is recommended that government, Non-profit organisations, and financial institutions design financial literacy programs aimed at young black African adults in rural

and low-income areas in South Africa in order to improve their level of financial literacy so that they are able to manage their finances effectively to achieve and maintain financial well-being.

References

1. Ajzen, I. (1991). The theory of planned behaviour, *Organisation Behaviour and Human Decision Processes*, 50(2): 179-211.
2. Antoni, X.L. (2014). Financial literacy and behaviour among the black community in Nelson Mandela Bay, MCom. Nelson Mandela Metropolitan University. Port Elizabeth, South Africa.
3. 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.
4. Arceo-Gomez, E.O., & Villagomez, F.A. (2017). Financial literacy among Mexican high school teenagers, *International Review of Economics Education*, 24: 1-17
5. Babbie, E. (2013). *The practice of social science research*. International edition. 13th edition. Wadsworth: Cengage Learning.
6. Batizani, D., & Quetishat, A. (2022). An empirical study on financial literacy among undergraduate higher education students: the case of Malawi institute of management, *Austin Journal of Business Administration and Management*, 6(1): 1-5.
7. Botha, M. (2013). A comparative analysis of the financial literacy of final year diploma students in different fields of study at the University of Johannesburg. MCom thesis. University of Johannesburg, Johannesburg, South Africa.
8. Breitbach, E., & Walstad, W.B. (2016). Financial literacy and financial behaviour among young adults in the United States, *Research in Vocational Education*, 3: 81-98.
9. Buckland, J. (2010). Are low-income Canadians financially literate? Financial literacy in the context of personal and structural constraints, *Adult Education Quarterly*, 60(4): 357-376
10. BusinessTech. (2021). *Here is the age profile of South Africans looking for help with debt*. Available from: <https://businesstech.co.za/news/business/465634/heres-the-age-profile-of-south-africans-looking-for-help-with-debt/> [Accessed: 29 March 2022].
11. Cameron, M.P., Calderwood, R., Cox, A., Lim, S. & Yamaoka, M. (2013). Personal financial literacy among high school students in New Zealand, Japan and the USA, *Citizenship, Social and Economic Education*, 12(3): 200-215.

12. Chavali, K., Mohan, P., & Ahmed, R. (2021). Does financial behaviour influence financial well-being? *Journal of Asian Finance, Economics and Business*, 8(2): 273-280.
13. Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education*. 8th edition. London: Routledge.
14. Danes, S.M., & Yang, Y. (2014). Assessment of the use of theories within the Journal of Financial Counselling and Planning and the contribution of the Family Financial Socialisation Conceptual Model, *Journal of Financial Counselling and Planning*, 25(1): 53-68.
15. 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.
16. DeVaney, S.A. (2016). Financial issues of older adults. In: J.J. Xiao, *Handbook of consumer finance research*. 2nd edition, Zurich: Springer
17. Ergun, K. (2018). Financial literacy among university students: a study in eight European countries, *International Journal of Consumer Studies*, 42: 2-15.
18. Fan, L. (2017). *The influences of financial help-seeking and other information sources on consumer's financial management behavior*. PhD thesis. Athens: University of Georgia. [online] Available at: <https://getd.libs.uga.edu/pdfs/fan_lu_201708_phd.pdf> [Accessed on 28 March 2022].
19. Fan, L., & Park, N. (2021). Factors mediating the association between financial socialisation and well-being of young adults: testing a conceptual framework, *Journal of Financial Counseling and Planning*, 32(2): 202-216.
20. 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].
21. Flores, C. (2014). First generation college student financial literacy: impact of self-efficacy and behaviour. PhD thesis. Washington State University. Washington. D.C, USA.
22. French, D., & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households, *International Review of Financial Analysis*, 48: 1-11.
23. Garman, E.T., & Fogue, R.E. (1988). *Personal finance*. 2nd edition. Boston: Houghton Mifflin.
24. Gudmunson, C.G., & Danes, S.M. (2011). Family financial socialisation: theory and critical review, *Journal of Family and Economic Issues*, 32: 644-667.

25. Hogarth, J.M. (2002). Financial literacy and family, and consumer sciences, *Journal of Family and Consumer Sciences*, 94(1): 14-28.
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.
27. Huston, S.J. (2010). Measuring financial literacy, *The Journal of Consumer Affairs*, 44(2): 296-316.
28. Kim, J., Gutter, M.S., Spangler, T. (2017). Review of family financial decision making: suggestions for future research and implications for financial education, *Journal of Financial Counselling and Planning*, 28(2): 253-267.
29. Lahav, E., Shavit, T., & Benzion, U. (2017). Don't let them fool you: adolescents' present-orientation and inferior financial understanding, *Young*, 26(1): 271-289.
30. Letkiewicz, J.C., & Fox, J. (2014). Conscientiousness, financial literacy, and asset accumulation of young adults, *The Journal of Consumer Affairs*, 48(2): 274-300.
31. Louw, J.J. (2009). Financial literacy competencies of third-year university students. MCom thesis. North-West University, Potchefstroom, South Africa.
32. Louw, J., Fouche, J., & Oberholzer, M. (2013). Financial literacy needs of South African third-year university students, *International Business & Economics Research Journal*, 12(4): 439-450.
33. Lusardi, A. (2015). Financial literacy: do people know the ABCs of finance? *Public Understanding of Science*, 24(3): 260-271.
34. Lusardi, A. (2008). Financial literacy: an essential tool for informed consumer choice? Working Paper 14084. *National Bureau of Economic Research*.
35. Lusardi, A., & Mitchell, O.S. (2014). The economic importance of financial literacy: theory and evidence, *Journal of Economic Literature*, 52(1): 5-44.
36. Lusardi, A., & Mitchell, O.S. (2011). Financial literacy and retirement planning in the United States, *Journal of Pension Economics and Finance*, 10(4): 509-525.
37. Lusardi, A., Mitchell, O., & Curto, V. (2010). Financial literacy among the young, *Journal of Consumer Affairs*, 44 (2): 358-380.
38. Matemane, M.R. (2018). Saving for tomorrow: does the level of financial literacy in the South African working class matter? *Southern African Business Review*, 2: 1-21.
39. Millen, A., & Stacey, A. (2022). Financial literacy in South African healthcare professionals: an unmet need in health professions education, *South African Journal of Higher Education*, 36(3): 123-142.
40. Mitchell, O.S., & Lusardi, A. (2015). Financial literacy and economic outcomes: evidence and policy implications, *Pension Research*

- Council Working Papers: WP2015-1. Available from: <https://pensionresearchcouncil.wharton.upenn.edu/wp-content/uploads/2015/08/WP2015-01.pdf> [Accessed: 15 May 2020].
41. Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: an interpretation of cross-section data. Cambridge: MIT Press, 47-59.
 42. Nomlala, B. (2019). Financial capability, financial socialisation and professional skills of accounting students studying in KwaZulu-Natal universities. PhD thesis. University of KwaZulu-Natal, Westville, South Africa.
 43. OECD. (2016). OECD/INFE International survey of adult financial literacy competencies. Available from: <https://www.oecd.org/daf/fin/financial-education/OECD-INFE-International-Survey-of-Adult-Financial-Literacy-Competencies.pdf> [Accessed: May 2019]
 44. Putri, D.N., & Wijaya, C. (2020). Analysis of parental influence, peer influence and media influence towards financial literacy at University of Indonesia students, *International Journal of Humanities and Social Science*, 7(2): 66-73.
 45. Rahman, M., Isa, C. R., Masud, M. M., Sarker, M., and Chowdhury, N. T. (2021). The role of financial behavior, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Future Business Journal*, 7(1): 52-70.
 46. Ramalho, T.B., & Forte, D. (2019). Financial literacy in Brazil — do knowledge and self-confidence relate with behaviour? *Management Journal*, 54(1): 77-95.
 47. 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.
 48. Remund, D.L. (2010). Financial literacy explicated: the case for a clearer definition in an increasingly complex economy, *The Journal of Consumer Affairs*, 44(2): 276-295.
 49. Robb, C.A., & Woodyard, A. (2011). Financial knowledge and best practice behaviour, *Journal of Financial Counselling and Planning*, 22(1): 60-70.
 50. Shambare, R. & Rugimbana, R. (2012). Financial literacy among the educated: an exploratory study of selected university students in South Africa, *Thunderbird International Business Review*, 54(4): 581-590.
 51. Shim, S., Barber, B.L., Card, N.A., Xia, 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.

52. Shim, S., Xiao, J.J., Barber, B.L., & Lyons, A. (2009). Pathways to life success: a conceptual model of financial well-being for young adults, *Journal of Applied Developmental Psychology*, 30(6): 707-723.
53. Shyamala, G., & Mahesh, R. (2022). A study on financial literacy and it's determinants among millennials in Mysore city, *International Journal of Scientific and Research Publications*, 12(9): 289-295.
54. Sirsch, U., Zupancic, M., Poredos, M., Levec, K., & Friedlmeier, M. (2020). Does parental financial socialisation for emerging adults' matter? The case of Austrian and Slovene first-year university students, *Emerging Adulthood*, 8(6): 509-520.
55. Smit, A.S. (2021). Financial literacy: a conceptualization in a South African university, MCom thesis. Nelson Mandela University, Port Elizabeth, South Africa.
56. 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].
57. Supanantarok, 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.
58. Symanowitz, C.D. (2006). The relationship between financial literacy, economic measures, and delayed gratification in South African high school learners. MBA thesis. University of Pretoria, Pretoria, South Africa.
59. VanderStoep, S.W. & Johnson, D. D. (2009). Research methods for everyday life: blending qualitative and quantitative approaches. San Francisco: Wiley.
60. Wang, A. (2009). Interplay of investors' financial knowledge and risk taking, *The Journal of Behavioural Finance*, 10: 204-213.
61. Warmath, D., & Zimmerman, D. (2019). Financial literacy as more than knowledge: the development of a formative scale through the lens of Bloom's domains of knowledge, *The Journal of Consumer Affairs*, 53(4): 1602-1629.
62. Xiao, J.J. (2008). Applying behaviour theories to financial behaviour. In J.J. Xiao, *Handbook of consumer finance research*. 1st edition. New York: Springer.
63. Xiao, J.J., Tang, C., Serido, J., & Shim, S. (2011). Antecedents and consequences of risky credit behaviour among college students: application and extension of the theory of planned behaviour, *Journal of Public Policy & Marketing*, 30(2): 239-245.
64. Xu, Y., & Yao, R. (2022). Financial decision-making responsibility and household wealth accumulation among older adults: a

- comparative advantage perspective, *Journal of Financial Counselling and Planning*, 33(1): 3-23.
65. Yamane, T. (1967). *Statistics: an introductory analysis*, 2nd edition. New York: Harper and Row.