A COGNITIVE ANALYSIS OF CONSUMER LITERACY TRAINING AND FINANCIAL CAPABILITY IMPROVEMENT AMONG SOUTH AFRICANS: A CROSS-SECTIONAL STUDY

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Abstract: By using quantitative and descriptive research approach via a cognitive analysis, this article investigated the influence *of consumer literacy training as a tool to improve financial capability among South Africans. Data was gathered from 10300 consumer literacy trainees from Gauteng and Mpumalanga provinces of South Africa and purposively and conveniently sampled. The use of pre- and post-test questionnaire surveys, employing a Likert scale, was identified as crucial for gathering data on cognitive improvement. The collected data underwent analysis through descriptive statistics and regression analysis. To ensure the reliability of the results, robustness analysis was conducted using SPSS version 28 and STATA. Empirical findings from this research study have statistically demonstrated that consumers enhanced their knowledge and skills related to financial capability after receiving consumer financial capability training. This study contributes significantly to the existing literature by addressing a critical gap and substantially enhancing the knowledge of financial capability among the study's participants. These results carry potential implications for various stakeholders, including donors, consumers, policymakers, financial literacy educators, and finance practitioners, all of whom can play a pivotal role in promoting consumer financial education, particularly in the South African context. The study suggests that the theoretical models developed thus far have primarily focused on the driving forces behind consumer financial capability success. However, these findings also hold substantial promise for academia, policymakers, banks, and other key players in the field of consumer financial capability training, including short courses within South Africa. Furthermore, this study provides a solid foundation for future research aimed at enhancing consumer protection and shedding light on the various factors that may hinder low-income individuals from achieving their financial goals through financial institutions.*

Keywords: Consumer financial capability, consumer literacy and using credit card wisely.

JEL Classification: G50, G51, G52 and G53.

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1. Introduction

Consumer financial capability has been widely defined by Lučić et al. (2023), as people's knowledge, skills and behaviours specifically related to managing personal finances efficiently and effectively. Lučić et al. (2023) further state that consumer financial capability encompasses people's ability to make informed decisions, save and invest prudently, budget wisely, avoid excessive debt, protect themselves from financial scams and fraud, and it plays a vital role in determining an individual's financial well-being (Lučić et al., 2023, Birkenmaier et al., 2022, Xiao and Porto, 2022).

Consumer education has been recognized as a critical component in empowering consumers to make informed and rational decisions in the marketplace, both globally and in South Africa (Mvunabandi et al., 2023). Consumer education is the process of teaching individuals how to make informed decisions when purchasing goods or services, thus protecting their rights as consumers, and managing their finances (Khatri and Duggal, 2022); it continues to be an important both globally, and especially in South Africa (Kim and Xiao, 2021, Matchaba-Hove et al., 2019). However, there are still gaps and issues in the literature regarding consumer financial capability (Hawkins, 2009, She et al., 2023).

Globally, as per a 2020 study conducted by the Organisation for Economic Co-operation and Development (OECD), a mere 38% of adults across 26 countries expressed confidence in their capacity to grasp financial concepts and make informed decisions. Moreover, the COVID-19 pandemic significantly underscored the necessity for enhanced financial literacy and consumer education, particularly as consumers grappled with unparalleled economic challenges and risks (Baicu et al., 2020). The need for consumer education has increased as the complexity of the marketplace has grown and the incidence of consumer fraud and deception has become more prevalent (Stavins, 2017, Routh, 2022, O'Brien et al., 2022).

In South Africa, consumer education remains a critical issue for protecting and empowering consumers. According to Chitimira and Magau (2023), a total of 10,070 consumer complaints have been received in the 2020/21 financial year, with the majority of complaints being related to issues such as poor service delivery, poor quality of products, and unfair business practices. Additionally, a 2020 survey by the South African Savings Institute has found that only 14% of respondents had a good understanding of financial planning and investment. A survey conducted by Chitimira and Magau (2023) has found that over half of South African consumers struggle to manage their finances, with only 47% of respondents indicating that they have a budget in place. The same survey has found that only 45% of respondents were aware of their credit profile, highlighting the need for improved financial literacy among South African consumers.

The COVID-19 pandemic has also highlighted the need for effective consumer education in South Africa, as consumers face new risks and challenges related to online and digital commerce.

In South Africa, substantial gaps and challenges persist in the realm of consumer education, posing a potential increase in financial vulnerability and exploitation; these issues demand immediate attention and resolution (Rodríguez-Álvarez et al., 2019). This paper demonstrates the urgent need for consumer financial literacy training among South Africans in the Gauteng and Mpumalanga provinces which can improve their financial capabilities and empower them to make informed financial decisions. Therefore, this study has investigated the driving forces behind consumer financial capability success among South Africans in previously mentioned provinces.

The reminder of this research paper is structured as follows: The next section provides a review of relevant literature that formed the bedrock to this research study, the third section presents the study's research methodology, the fourth section provides the study's empirical results, analysis and discussions. The final section presents the study's contributions, conclusions and recommendations, limitations and suggestions for future research.

2. Literature Review

This study was driven by well-known theories that can be applied to consumer behaviour and financial capability form a diverse set of scientific grounds: financial, economic, psychological, sociological and etc. These include the permanent income theory, the life cycle hypothesis theory and life cycle knowledge accumulation model, the family management system. Furthermore, the researcher adopted the human ecological model, the human development model, the theory of trying, the capability approach theory, the self-efficacy theory, the motivation need theory, the model of goal directed behaviour, the behavioural life cycle hypothesis, the Mindspace theory, and the consumer education theory. All these theories offer insights on consumer behaviour, and financial capability and financial education among consumers. This mix of theories as theoretical toolbox and therefore, be described as multi-paradigm strategy aimed that gaining in depth insight into the research topic under investigation. Table 1 provides a snapshot or overview of analysed theories, models and theoretical frameworks and consumer financial capability in the centre of these theories.

Table 1: Theories

Theories	Descriptions/Explanations	References
Permanent income theory	This theory posits that people consume a fraction of permanent income in each period of life and thus the average of propensity to consume would equal to marginal propensity to consume.	Palley, 2010, Sabelhaus and Groen, 2000
Life Cycle hypothesis theory and life cycle knowledge accumulation model	This theory asserts individual consumes a constant percentage of their income during their life cycle and. Consumption and savings are stage-development	Seidl et al., 2021
Family management system	The theory posits that the family financial system is determined by the available resources that are then used to achieve financial goals in accordance with the identified needs and wants	Ecija, 2020
Human ecological model	This theory posits that interaction between the categories in microsystem (immediate family, friends' classmates, co-workers and member of one's spiritual community) and macrosystem could affect financial capability and literacy among young consumers susceptible to interactions influences	Reyes Uribe, 2023
Human development model	This theory asserts that individual development of desirable behaviours depend on family and parenting impact in childhood and parents are most significant socialisation agents in the context of children's money management and financial decision-making process	Khatri and Gupta, 2021
Theory of trying	This theory posits that the intention to try is determined by attitude and expectation toward success or failure, and attitude toward money management are determined	Ruben and Ruben, 2018

	by attitudes toward success, failure and learning of usage and affect the intention of behaving responsibly with personal finances	
Capability approach theory	This theory asserts consumers' advantage lies in their actual ability to achieve valuable functions for various aspects of life in a combination with quality of life and financial literacy presents valuable skill which contributes to financial capability therefore leading to the creation or can create financial well-being	Robeyns, 2021
Self-efficacy theory	This theory posits that consumer behaviour is determined by outcome expectancies and perceived self-efficacy, these authors further argue that consumer with high level of self-efficacy are confident about managing personal finances and have better money management performance	Shehzadi and Jameel, 2023
Motivation need theory	This theory posits that consumers are motivated and make decisions based on hierarchy of human needs through Maslow's hierarchy of human needs and note that consumer financial decisions can and should be ordered hierarchically.	Acquah et al., 2021, Rojas et al. 2023
Model of goal directed behaviour	This theory asserts that consumers behaviour is determined by positive and negative anticipated emotions, attitudes and subjective norms frequency and recency of past behaviour and desire, and by creating desire for financial knowledge and capacity one activates its intentions for responsible financial behaviour.	Arora et al., 2021
Behavioural life cycle hypothesis	This theory posits that consumer behaviour is determined by self-control, mental accounting abilities and mental framing, efficient spending habits in order to achieve financial well-being.	Bonekamp and van Soest, 2022
Mindspace theory	This theory asserts that consumers' behaviour is driven mostly automatically rather than deliberately. Consumers have to make an efficient decision while allocating incomes by account and making purchase decisions considering MINDSPACE theory, mental accounting and mental.	Lučić et al., 2023
Consumer education theory	believe that the main goal of consumer education theory is to provide individuals with the knowledge, skills, and attitudes they need to navigate the complex marketplace and make decisions that align with their needs and values.	Rodríguez-Álvarez et al., 2019

Source: Author's compilation

2.1. Constructs and measures of financial literacy

Globally, Coderoni and Perito (2020) have proposed three main components and key constructs for measuring financial literacy: (1) knowledge of financial concepts (e.g., interest rates, inflation, risk diversification), (2) knowledge of financial products (e.g., stocks, bonds, mutual funds), (3) knowledge of financial management strategies (e.g., budgeting, saving, investing). Furthermore, Faulkner (2022) has identified the following four dimensions of financial literacy: (1) understanding financial information, (2) financial attitudes and behavior, (3) financial knowledge and skills, (4) financial experiences and outcomes. At the same time, Klapper and Lusardi (2020) have proposed a model of financial literacy in South Africa based on four constructs: (1) financial knowledge (e.g., understanding of financial products and concepts). (2) financial behavior (e.g., savings habits, budgeting), (3) financial confidence (e.g., ability to make informed financial decisions), (4) financial attitudes.

In South Africa, a study by Matlala et al. (2021) has aimed at creating a measurement tool for financial literacy that includes four constructs: knowledge, skills, behavior, and attitudes. The study found that the tool had good validity and reliability in measuring financial literacy among South African university students.

Another study by Nanziri and Leibbrandt (2018) in South Africa has used a similar measurement tool that included four constructs: financial knowledge, financial skills, financial attitudes, and behavior. Nanziri and Leibbrandt (2018) have found that financial literacy was positively associated with financial behavior, suggesting that improving financial literacy could lead to better financial decision-making. Similarly, Ifeanyi et al. (2019) have developed a financial literacy index for South Africa based on the following six constructs namely: (1) financial management, (2) investment literacy, (3) borrowing literacy, (4) insurance literacy, (5) knowledge of financial products and services, and (6) knowledge of financial institutions and their functions.

2.2. Empirical literature

A study by Boldar et al. (2022) has found that many Kenyans lack access to reliable information about consumer issues, including the usage of monetary products and services in financial institutions and information on their rights and responsibilities as consumers. This lack of information can make it difficult for persons to make informed decisions about the products and services they purchase. Similarly, according to Wentzel (2019), many young people in South Africa lack the knowledge and skills needed to manage their finances effectively, which lead to problems such as debt and financial instability. Wentzel (2019) alluded that lack of financial literacy tremendously impact youth's ability to make informed decisions about the financial products and services, as they do not fully understand the financial implications of their choices. In their research conducted in several European countries on consumer literacy, Seldal and Nyhus (2022) have shown that consumer education can play an important role in promoting financial inclusion and reducing financial vulnerability, particularly among disadvantaged groups. However, Seldal and Nyhus (2022) noted that there is a need for more tailored approaches to consumer education that consider cultural and linguistic differences.

A study by Mpofu (2023) has found that households with emergency funds had lower levels of financial stress and were better able to manage financial shocks compared to those without emergency funds. Mpofu (2023) has also found that budgeting and financial education were positively associated with emergency fund ownership. Another study conducted by the Chipunza and Fanta (2022) at the University of Johannesburg found that individuals who participate in financial education programs and receive guidance on how to use credit responsibly are more likely to demonstrate positive credit behaviors and experience improved financial outcomes. These findings are consistent with research

conducted in other countries, which suggests that responsible credit use can lead to improved financial well-being (Umuhoza et al., 2020).

3. Research Methodology

This study was based on primary data via longitudinal data gathering at a large and anonymised non-government organisation based in South Africa of which signed the memorandum of understanding with the University of KwaZulu-Natal. Access to the raw organisational primary data which was captured into excel spreadsheet was granted on special condition of maintaining privacy and anonymity of 10300 participants who were selected randomly and participated in the pre and post survey. Hence, the need to strictly adhere to the UKZN Research Ethics, and procedures. The research also strictly adhered to the Protection of personal Information Act (POPI Act) in South Africa throughout. No pressure was placed on the participants to participate in the study and prospective participants were informed that their participation was voluntary. All participants signed consent forms to participate in the consumer literacy training and in pre and post-tests surveys prior to start. Credibility was established by providing detailed information to all participants on the purpose of the training, pre and post-tests surveys, what was expected from participants, why they were chosen and how the data would be protected and stored.

Upon signing of the memorandum of understanding between the anonymised non-government organisation based in South Africa with the University of KwaZulu-Natal on 23rd January 2023, the researcher was given access to the raw organisational primary data which was captured into excel spreadsheet. Data gathered was double captured in Excel spreadsheet for cleaning exercise so as to ensure that captured data error free. Subsequently data was converted and imported into SPSS version 28 and STATA for statistical analysis.

The research instrument used to gather data was developed by the organisational master trainer in consumer literacy and it was subdivided into two sections: Section A comprised demographic characteristics of the respondents, Section B involved a range of questions to capture their levels of knowledge on consumer literacy. The design the data collection instruments (questionnaires, consent and assent forms, training manuals were adhered to POPI Act). Pre-training surveys tests were conducted to capture initial consumer literacy knowledge (baseline). Each participant was deemed to have been trained from March (pre-test data) to November 2022 (post-test data) to succeed in making consumption informed decisions. Post-tests surveys were conducted in November 2022. The researcher carefully analysed the raw data pertain to pre-post-tests in order to measure consumer literacy and skills gained by each participant. The dataset for this research study, contains longitudinal dimensions from September (Pre-Test Data) to November 2022 (Post Tests Data) as 10300 participants across the two provinces, Gauteng and Mpumalanga. Pre-tests data of 5th and 6th Novermber 2022, Post data of 24th and 25th November 2022 and external evaluation done soon after workshop on one on one basis enabled the researcher to measure respondents' consumer literacy knowledge and skills.

Pre-and post-tests were to measure participants knowledge gained during consumer literacy training intervention. Pre-test was a set of questions given to participants before consumer literacy training began in order to test the initial knowledge on consumer literacy and to determine whether participants were knowledgeable or not and to determine their levels of consumer literacy. Upon completing consumer literacy training content, participants were given a post-test questionnaire to answer the same set of questions. The researcher compared the pre and post-tests survey results and scores to examine whether participants enhanced their consumer knowledge and skills. Robustness analysis was performed by using SPSS version 28 and STATA on all 6302 (61.2%) and 3998 (38.8%) participants form Gauteng and Mpumalanga provinces respectively. Data was also edited and checked for

logical internal consistency. The Cronbach's Alpha for the scales used for this study was .720, which suggest a high level of internal consistency. Therefore, the overall analysis suggest that the main drivers influence participants' consumer literacy. Gathered data were then put into binary variable in order to easily quantify frequency, mean and standard deviation scores into two categories. The first category "Poorly knowledgeable" and the second category "highly knowledgeable" on consumer literacy. Longitudinal quantitative data was analysed using descriptive statistics where percentages frequencies, means, and standard deviation scores and regression analysis.

4. Empirical results, analysis and discussions

The demographic data is presented in table 3 attached as appendix 1. The study's results show that 2228(21.6%) of the respondents were from Bushbuckridge municipality, 2004(19.5%) of the respondents were from City of Johannesburg, 410(4.0%) were from City of Tshwane, 98(1.0%) of the respondents were from Dr. J.S. Moroka, 2193(21.3%) of the respondents were from Ekhurhuleni Local Municipality, 163(1.6%) of the respondents were from Emakhazeni Local Municipality, while 566(5.5%) of the respondents were from Emfuleni Local Municipality. The study's results further show that 124(1.2%) of the respondents were from Midvaal Local Municipality, 538(5.2%) of the respondents were from Lesedi Local Municipality, 111(1.1%) of the respondents were from Sedibeng Local Municipality, 282(2.7%) of the respondents were from Emalahleni Local Municipality, 680(6.6%) of the respondents were from Nkomazi Local Municipality, 20(.2%) of the respondents were from Mbombela Local Municipality, 503(4.9%) of the respondents were from Mashishing Local Municipality, 235(2.3%) of the respondents were from Victor Khanyile Local Municipality, while 145(1.4%) of the respondents were from Thaba Chweu Local Municipality, and 235(2.3%) of the respondents were from West Rand Local Municipality. The study's results also indicate that 6302(61.2%) of the respondents were from Gauteng and 3998(38.8%) of the respondents were from Mpumalanga.

The study's results show that, 7003(68.0%) of the respondents are women and 3297(32.0%) men. Thus, there were more females than males. The study's results, also show that 5054 (49.1%) of the respondents were between the ages of 18 and 20, 2508 (24.3%) fell into the age group of 21 and 25, 783 (7.6%) of the respondents were Between the ages of 26 and 30, 523(5.1%) of the respondents between the ages of 31 and 35, 366(3.6%) of the respondents fell into the age group of 36 and 40, 288(2.4%) of the respondents between the ages of 41 and 45, 248(2.4%) fell into the age of 46 and 50 and 530(5.1%) of the respondents were 51 and above , and 4(7.5%) of the respondents were above 60 Years old. Thus, the majority of the respondents were between 36 and 48 years old. This finding contradicts the findings of many studies around the world that have found women to have the significantly lower financial knowledge and ability than men (Mashizha et al., 2019; Nanziri & Leibbrandt, 2018; Shusha, 2017; Widityani et al., 2020).

Table 2: Level of Consumer literacy and the use credit card wisely knowledge before and after Training.

Variables	Pre-Training Survey Results (March 2022)	Post-Training Survey Results (November 2022)
	Frequency	Frequency
Respondents with the score of 38%	947(9.2%)	0(0%)
Respondents with the score of 44%	855(8.3%)	0(0%)
Respondents with the score of 50%	1331(12.9%)	0(0%)
Respondents with the score of 56%	1709(16.6%)	87(0.8%)
Respondents with the score of 63%	1815(17.6%)	81(0.8%)

Respondents with the score of 69%	1617(15.7%)	178(1.7%)
Respondents with the score of 75%	1117(10.8%)	308(3.0%)
Respondents with the score of 81%	624(6.1%)	547(5.3%)
Respondents with the score of 88%	218(2.1%)	1176(11.4%)
Respondents with the score of 94%	48(.5%)	2627(25.5%)
Respondents with the score of 100%	19(.2%)	5296(51.4%)
TOTAL	**10300 (hundred percent)**	**10300 (hundred percent)**

Source: Compiled by the researcher via SPSS.

Table 2 above provides a snapshot of the descriptive and longitudinal analysis for a comparison between pre-test and post-tests surveys in all study's variables that were identified. Overall, the descriptive and longitudinal analysis conducted on whether consumer literacy training can enhance financial capability among south Africans found that number of participants poorly scored during pre-tests were significantly decreased comparing to those who were excellently scored during pre-tests were increased.

Based upon the results of descriptive and longitudinal analysis in the aforementioned table from the pre and post-tests survey, the researcher can therefore, draw a valid conclusion that there is statistically significant financial literacy knowledge improvement after the completion of consumer literacy training since the variance between pre and post-tests scores variance were positive from 19(.2%) to 5296(51.4%) who scored 100%. The results from pre-tests scores showed that majority of respondents were financially illiterate as a small portion scored highly 100% which is19(.2%). But the results from post training survey indicate that majority of the respondents were not highly financially literate. While post training scores potentially indicate that majority of respondents scored highly 5296(51.4%). These trends have been observed throughout from those who scored 38% to those who scored 100% and these variants proved that respondents greatly improved their consumer behaviour, and financial literacy and financial capability.

The means, standards deviations, and p-values for the 38 variables are presented *in table 4 attached as appendix 2.* Table 4 further indicates that p-value of <.001 *** was statistically significant throughout which has the interpretation of good financial literacy and respondent's knowledge improvement after being trained. Hence, the statistical significance between dependent and independence variables was found. This result is in line with the prior literature that states that low level of financial literacy is associated with negative credit behaviours, poor mortgage choice, mortgage delinquency and home foreclosure and debt accumulation on high cost borrowings (Baulkaran, 2022, Fitri et al., 2022, Xiao and Porto, 2022).

The results from post training (post-tests) indicate that the participants who were not financially knowledgeable during pre-training significantly decreased. Based upon this result, it can be inferred that consumer literacy training enhanced the knowledge of participants robustly.

These results support the findings of other studies that found that found that personal financial education is crucial in reducing personal bankruptcy as well consumer credit delinquency rates (Gupta and Prusty, 2023, Baulkaran, 2022).

However, our study's findings significantly differ from those of Cheryl and Ng (2022) who's study on protecting the unprotected consumer data in the internet of things (IoT) concluded that majority of consumers expressed concern about their personal data risks due to the IoT usage. This finding is also overwhelmingly supported in the literature (Xiao and Bialowolski, 2023, Xiao, 2016, Xiao et al., 2015, Xiao et al., 2014).

These findings are consistent with earlier research on consumer education theory by Rodríguez-Álvarez et al (2019) and Khatri and Duggal (2022) which emphasized the

importance of providing individuals with the knowledge and skills necessary to navigate the marketplace and make informed choices. Bin Mohd Alwi et al. (2022) has argued that consumers have a right to accurate and complete information regarding banking products and services, as well as the right to voice their opinions and hold businesses accountable for their actions. Similarly, Khan et al. (2022) has emphasized the importance of consumer education in promoting social welfare; what is more, Zhang and Fan (2022) further argued that consumer education was essential for promoting sustainable consumption and protecting the environment.

This is also in line with the view of Lusardi (2010) who found that the majority of individuals in the United State of America, had low levels of financial literacy and do not make provisions against shocks. Lusardi (2010) attested that financial literacy training has helped consumers on borrowing, saving and investment portfolios globally such as Britain, Canada, Germany and United States where it is in use.

The findings of this study are consistent with earlier research on model of goal directed behaviour by Arora et al. (2021), who found that consumers behaviour is determined by positive and negative anticipated emotions, attitudes and subjective norms frequency and recency of past behaviour and desire, and by creating desire for financial knowledge and capacity one activates its intentions for responsible financial behaviour.

The findings of this study are also supported with theories underpinning consumers' financial capability such as capability approach theory by Robeyns (2021) and consumers' financial capability theory by Lučić et al. (2023) who pointed out that consumers' advantage lies in their actual ability to achieve valuable functions for various aspects of life in a combination with quality of life and financial literacy presents valuable skill which contributes to financial capability therefore leading to the creation or can create financial well-being.

The Regression analysis on post assessment scores are presented *in table 5 attached as appendix 3.* In the regression of the on the impact of consumer literacy training among South Africans on the independent variables, the findings revealed that the constant all have positive and significant relationships with financial capability among South Africans. This result suggests that, on average, an increase in these variables would result in an increase in financial literacy, albeit insignificantly. Thus, all variables positively influence and enhance financial capability of South Africans.

Based upon the regression analysis results from on the impact of consumer literacy training in enhancing financial capability among south Africans, the researcher can therefore, draw a valid conclusion on the critical role of consumer literacy training as an effective instrument in elevating financial knowledge among South Africans. This implies the increase in the consumer literacy training is positively associated with an increase their skills and knowledge financially. This finding is also overwhelmingly supported in the literature (Xiao and Bialowolski, 2023, Xiao, 2016, Xiao et al., 2015, Xiao et al., 2014).

5. Contribution to the science, conclusion and recommendations

Evidence showed gaps and issues regarding consumer financial capability, both globally and in South Africa. The focus of this study has been on the urgent need for consumer financial literacy training on prerequisites and outcomes of consumer financial capability among South Africans in Gauteng and Mpumalanga Provinces. Regression analysis, correlation analysis and descriptive statistics among 10300 participants after training intervention completion show a statistically significant relationship among all the study variables.

Overall, the descriptive statistics, and correlation analyses of the participants in the financial literacy study reveal a statistically significant relationship among all the variables under investigation. This study suggests that consumers should consistently update their financial knowledge and skills through consumer financial capability training. Furthermore,

advocating for the development and implementation of consumer education policies in South Africa is essential to empower consumers and enhance their financial capability. This study has made both practical and theoretical contributions to the field of consumer financial capability. The results are expected to boost the level of consumer financial capability among South Africans, thus contributing to their financial well-being. The empirical findings of this study have potential implications for policymakers, financial literacy educators, and finance practitioners, who play crucial roles in promoting consumer financial education, especially in South Africa. The study will shed new light on the key determinants of consumer financial capability, assisting South Africans in making informed and prudent financial decisions. Moreover, the idea of developing a consumer financial capability index emerges as an intriguing research proposition. Future research endeavours could explore consumer financial capability across South Africa, employing mixed methods to gain a comprehensive understanding of the topic.

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Bio-notes:

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Dr. Lawrence Gadzikwa is the *CEO* of Hand in Hand SA and *founder* and *Managing Director* of BlaPau Management Consulting, a company specialising in strategy development and execution across different sectors. Lawrence is a seasoned management consultant with broad consulting experience in strategy and management processes accumulated over 20 years of working in both public and private sectors and as an entrepreneur. Over the years, Lawrence has delivered practical and relevant outcomes to clients in the following areas: Enterprise Development & Entrepreneurship; Business Performance Improvement; Cost Reduction and Revenue Enhancement; Programme Design, Monitoring & Evaluation; Research, Agriculture and Agribusiness, Business Modelling, and Cleaner Production Assessments (CP) – Resource Efficiency Audits – Energy, Water, Material. Lawrence is responsible for leading flagship projects funded by ABSA, UN Women, and Save the Children and National Youth Service (NYS). Currently, Lawrence is an Honorary Research Fellow in SAEF at the University of KwaZulu-Natal. Lawrence is a holder of a CIS diploma from the Institute of Chartered Secretaries and Administrators, and BSc, MSc and PhD Degrees in Agricultural Economics.

Appendix 1

Table 3: Demographic data

Response type	Questionnaire items	%
Respondent's Local Municipality	Bushbuckridge municipality	2228(21.6%)
	City of Johannesburg	2004(19.5%)
	City of Tshwane	410(4.0%)
	Dr. J.S. Moroka	98(1.0%)
	Ekhurhuleni Local Municipality	2193(21.3%)
	Emakhazeni Local Municipality	163(1.6%)
	Emfuleni Local Municipality	566(5.5%)
	Midvaal Local Municipality	124(1.2%)
	Lesedi Local Municipality	538(5.2%)
	Sedibeng Local Municipality	111(1.1%)
	Emalahleni Local Municipality	282(2.7%)
	Nkomazi Local Municipality	680(6.6%)
	Mbombela Local Municipality	20(.2%)
	Mashishing Local Municipality	503(4.9%)
	Victor Khanyile Local Municipality	235(2.3%
	Thaba Chweu Local Municipality	145(1.4%)
	West Rand Local Municipality	235(2.3%
TOTAL	10300(100%)	
Provinces	**Gauteng**	**6302(61.2%)**
	Mpumalanga	**3998(38.8%)**
TOTAL	10300(100%)	
Age	Between 14-20	5054(49.1%)
	Between 21-25	2508(24.3%)
	Between 26-30	783(7.6%)
	Between 31-35	523(5.1%)
	Between 36-40	366(3.6%)
	Between 41-45	288(2.4%)
	Between 46-50	248(2.4%)
	51 and above	530(5.1%)
TOTAL	10300(100%)	
Gender	Female	7003(68.0%)
	Male	3297(32.0%)
TOTAL	10300(100%)	
Ethnic Group	Black	10218(99.2%)
	Coloured	80(.8%)
	White	2(.0%)
TOTAL	10300(100%)	
Respondents with bank account	Yes	7162(69.5%)
	No	3138(30.5%)
TOTAL	10300(100%)	
Monthly Income	Between R0 - R20883	10231(99.3%)
	Between R20884 and More	69(.7%)
TOTAL	10300(100%)	

Source: SPSS output.

Appendix 2

Table 4: Level of financial literacy practices and using credit wisely

Variables	Mean	Mean	St. Dev	St. Dev	*P-value*
	Pre-test Mar- 22	Post-test Nov- 22	Pre-test Mar-22	Post-test Nov- 22	
It is hard to stick to my spending plan when unexpected expenses arise.	1.61	3.92	.490	.988	<.001 ***
It is hard to stick to my spending plan when unexpected expenses arise.	1.61	3.78	.491	.943	<.001 ***
Following a budget every time I spend	1.58	4.20	.497	1.114	<.001 ***
I control my finances and stick to the budget	1.57	4.47	.497	.723	<.001 ***
When unexpected expenses occur, I usually have to use credit	1.61	3.78	.490	.980	<.001 ***
When you don't have the things you want, you don't have 'quality of life', your standards of living are compromised – so always buy the things you want and desire.	1.60	4.12	.492	.798	<.001 ***
Whenever you see a sale – buy something! This will help you save money over the long run	1.60	4.29	.494	.761	<.001 ***
To help you save money, make a shopping list of the things you need, and take enough money with you to buy items that might be on sale.	1.58	4.29	.497	.777	<.001 ***
Going from shop to shop comparing prices wastes time and creates the risk that the items you wanted to buy will be sold out by the time you return.	1.61	2.20	.491	1.115	<.001 ***
Having a monthly budget is just a theory – the most important thing that will help you work wisely with your money is to know what you want to buy.	1.58	2.12	.496	1.060	<.001 ***
It's difficult to save money monthly when you only have	1.61	2.28	.491	1.065	<.001 ***

a small amount like R20 left at the end of the month.					
It is important to pay all your accounts on time, except when you can see that you are running short of money.	1.58	3.44	.496	2.054	<.001 ***
It is not necessary for you to know what your credit report says about you.	1.58	4.39	.497	.766	<.001 ***
If you have accounts and you have skipped some payments, it is not important to contact your creditors and arrange to catch up.	1.57	3.77	.497	1.818	<.001 ***
It is useful to have access to credit in times of unforeseen emergencies, family crisis, unexpected illness etc.	1.61	3.92	.490	.961	<.001 ***
If you are using credit, it is absolutely critical that you pay the due amount in full each month.	1.60	3.87	.492	.999	<.001 ***
Credit products allow us the benefit of having large items such as homes, cars, and appliances immediately, even though we are still paying for them.	1.60	3.47	.493	1.104	<.001 ***
You don't need to understand the terms and conditions in the credit agreement so that you can fully understand your responsibilities.	1.58	3.51	.497	1.125	<.001 ***
The National Credit Act ensures that all credit providers lend in a responsible way, protecting consumers and preventing consumers from borrowing more than they can repay.	1.61	4.35	.491	.860	<.001 ***
Is good to use credit to buy things that you want when you don't have enough cash to afford it.	1.59	1.97	.495	.902	<.001 ***
I will budget so that I can see what I can afford to do with my money.	1.61	1.33	.491	.493	<.001 ***
I think a bank account will help me keep my money safe.	1.59	3.05	.495	.784	<.001 ***
I will avoid buying things on account just because I can	1.58	4.80	.497	.512	<.001 ***

I will make sure that I really need something before I buy it.	1.61	4.59	.491	.901	<.001 ***
I will open a bank account and learn how to use it.	1.59	3.95	.495	1.158	<.001 ***
I will work towards achieving my goals by controlling the way I spend my money.	1.61	2.69	.491	1.103	<.001 ***
I will save money every month, even if it is just a little for a brighter future.	1.58	4.61	.496	.921	<.001 ***
I will pay all my bills, on time, every month.	1.58	4.66	.497	.903	<.001 ***
I will ask for my free credit report every year.	1.57	4.62	.497	.898	<.001 ***
If I am unable to pay my bills, I will immediately speak to my creditors.	1.58	4.16	.497	.883	<.001 ***
I find it useful to have access to credit in times of unforeseen emergencies like a family crisis.	1.61	3.34	.491	.534	<.001 ***
I pay the amount due on my credit in full each month.	1.59	4.55	.495	.500	<.001 ***
I get large items like appliances immediately, even though I am still paying for them via credit.	1.61	4.93	.490	.426	<.001 ***
I don't need to understand my responsibilities that are listed in a credit agreement.	1.58	4.13	.496	.334	<.001 ***
I am protected by the National Credit Act and it helps me from borrowing more than what I can repay.	1.58	3.94	.497	1.251	<.001 ***
I read my bank statement regularly	1.59	4.69	.495	1.709	<.001 ***
My debit/credit card has been declined for insufficient funds	1.58	4.80	.497	.512	<.001 ***
I will use credit wisely.	1.57	4.59	.497	.901	<.001 ***

A Likert Scale of 1 =Strongly Disagree, and 2=Strongly Agree   *All correlations significant at **P-value <.001 ***

Source: SPSS output.

Appendix 3:

Table 5: The Regression analysis on post assessment scores

Post Assessment Score	Coefficient	Std. Err.	t	P>t	[95% conf.	interval]
It is hard to stick to my spending plan when unexpected expenses arise.	.0668	.03444	1.94	0.052	.0006	.1343
When unexpected expenses occur, I usually have to use credit	.0080	.04551	0.18	0.646	1.6245	1.0074
Following a budget every time I spend	.0094	.03394	0.28	0.781	.05709	.07597
I control my finances and stick to the budget	.04324	.03762	1.15	0.707	1.8528	1.2572
When you don't have the things you want, you don't have 'quality of life', your standards of living are compromised – so always buy the things you want and desire.	1.5249	.7433	2.05	0.040	.06786	2.9819
Whenever you see a sale – buy something! This will help you save money over the long run	1.3498	.79748	1.69	0.091	.21333	2.9131
Going from shop to shop comparing prices wastes time and creates the risk that the items you wanted to buy will be sold out by the time you return.	.0410	.04066	1.01	0.497	.5850	.2837
Having a monthly budget is just a theory – the most important thing that will help you work wisely with your money is to know what you want to buy.	.2615	.17334	1.51	0.131	.07820	.6013
It's difficult to save money monthly when you only have a small amount like R20 left at the end of the month.	.0604	.08989	0.67	0.501	.11574	.2366
It is important to pay all your accounts on time, except when you can see that you are running short of money.	.04109	.03798	1.08	0.134	2.6116	.34987
If you have accounts and you have skipped some payments, it is not important to contact your creditors and arrange to catch up.	.02186	.03445	0.63	0.526	.0456	.08941
It is useful to have access to credit in times of unforeseen emergencies, family crisis, unexpected illness etc.	.28144	.7932	0.35	0.723	1.2734	1.8363
If you are using credit, it is absolutely critical that you pay the due amount in full each month.	.02611	.03803	0.69	0.076	2.7607	.13795
Credit products allow us the benefit of having large items such as homes, cars, and appliances	.06679	.03123	2.14	0.358	2.4084	.87074

immediately, even though we are still paying for them.						
You don't need to understand the terms and conditions in the credit agreement so that you can fully understand your responsibilities.	.35251	.62860	0.56	0.575	.87968	1.5847
The National Credit Act ensures that all credit providers lend in a responsible way, protecting consumers and preventing consumers from borrowing more than they can repay.	.4966	.35974	1.38	0.167	.20854	1.2017
is good to use credit to buy things that you want when you don't have enough cash to afford it.	.1558	.91364	0.17	0.865	1.6350	1.9468
I will budget so that I can see what I can afford to do with my money.	.0568	.11997	0.47	0.636	.17835	.29199
I think a bank account will help me keep my money safe.	.0010	.00570	0.18	0.736	1.7180	1.2137
I will avoid buying things on account just because I can	.0071	.01918	0.37	0.438	1.0916	.47261
I will open a bank account and learn how to use it.	.0007	.04280	0.02	0.670	-2.6652	1.7132
I will work towards achieving my goals by controlling the way I spend my money.	.0028	.00401	0.72	0.533	.33478	.17323
I will save money every month, even if it is just a little for a brighter future.	.8591	.96571	0.89	0.374	1.0338	2.7521
I will ask for my free credit report every year.	.0015	.01718	0.09	0.869	3.6008	3.0432
If I am unable to pay my bills, I will immediately speak to my creditors.	.0006	.01175	0.05	0.809	1.3207	1.0312
I find it useful to have access to credit in times of unforeseen emergencies like a family crisis.	.0012	.00166	0.77	0.442	.5790	.30741
I pay the amount due on my credit in full each month.	.0015	.01718	0.09	0.734	.2912	.20529
I get large items like appliances immediately, even though I am still paying for them via credit.	.0581	.11445	0.51	0.612	.1662	.28249
My debit/credit card been declined for insufficient funds	.0086	.07502	0.12	0.908	.1383	.1557
I am protected by the National Credit Act and it helps me from borrowing more than what I can repay.	.2048	.59678	0.34	0.731	.9649	1.374
_cons	8.7985	.13540	64.98	0.000	8.5331	9.0640

Source: STATA output.