



## Relationship between Financial Literacy Variables and Materialism of Millennials in a Selected South Africa Municipality

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**Abstract:** The objectives of this study were to statistically ascertain the relationship between financial literacy variables and materialism of millennials in the Phokwane Local Municipality, South Africa. This objective was motivated based on the gap in the literature as it concerns how financial literacy relates to millennial materialism in South Africa. A quantitative research method was adopted with a focus target population of millennials (ages 22 to 44 years old) in Phokwane Local Municipality using purposive and convenient sampling techniques. A self-administered questionnaire through Question Pro was used to obtain responses from the participants, and the study conducted an inferential (Pearson Correlation) statistical analysis using SPSS Version 26. The study revealed that all the financial literacy variables are strongly positively correlated except money attitude with negative correlation. The implication of the positive correlation indicates that the more knowledge the millennial has with one financial literacy variable, the more they tend to have in other variables except for their attitude towards money, which partly define their personality as millennials. Secondly, the relationship between money management, financial planning, financial products, savings, and investment is negatively correlated with millennials' materialism. This negative correlation indicates that even though millennials are financially literate, they are still materialistic. This study reveals that application of financial literacy knowledge and financial discipline by millennials and other active members of South African households is vital and as such, policymakers, and stakeholders in charge of financial literacy and savings campaigns in South Africa should focus more on the initiatives that promote these concepts.

**Keywords:** Millennials; Financial Literacy; Money Attitude; Materialism; South Africa

**JEL Classification:** G530; D14; G510

### 1. Introduction

Millennials, also known as Generation Y, are born between 1980 and 1999 (Stats SA, 2018). Many predict that by 2025, three out of every four workers worldwide will be millennials (Omilion-Hodges & Sugg, 2019; Lusardi & Oggero, 2017). Millennials grew up in a time of prosperity, and when they entered the workforce, there was an economic downturn (Deloitte, 2021). De Bassa Scheresberg and Lusardi (2014) mention that they are still a generation that remains energetic and highly optimistic even with the economic instability. However, Deloitte (2019) and Martin (2018) found that the

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economic downturn associated with their age range affected millennials' trust in financial institutions and governments. Similarly, in the South African context, the trust levels of millennials in the current government have been on a decreasing trend (Thusi & Maduku, 2020).

Millennials are generally known to be unwise in their finances. However, a person needs to prosper financially to have financial skills. Therefore, the financial literacy level is crucial for that person's survival (Pangestu & Karnadi, 2020). Furthermore, Mbukanma (2019) mentions that human beings' existence is, unfortunately, connected to money management. Therefore, it can be said that it is vital to have financial skills for a person to prosper financially. Using the 2014 Standard and Poor's Global FinLit survey, Lusardi and Oggero (2017) mention that South African millennials' literacy rate was 43%. Lusardi and Oggero (2017) also mention that among the millennials from the five major emerging economies, the percentage rate of literate adult South African millennials is the highest compared to Brazil, China, India and the Russian Federation.

On the other hand, materialism has been associated with millennials (Thusi & Maduku, 2020). Accordingly, Oxford Learner's Dictionary (2021) defines materialism as “The belief that money, possessions and physical comforts are more important than spiritual values”. Similarly, Merriam-Webster Dictionary (2021) defines materialism as “A way of thinking that gives too much importance to material possessions rather than to spiritual or intellectual things”. Materialism refers to the relationship an individual has with material possessions. Jacobs and Smit (2010) describe an individual as materialistic if material possessions are vital. Highly materialistic individuals spend more money and time shopping and are likelier to incur high debt levels (Ngubelanga & Duffett, 2021). Potrich and Vieira (2018) support the argument of Jacobs and Smit (2010) and mention that the greater the level of the materialism of a person, the greater the tendency to incur debt. Similarly, Mbukanma (2019) mentions that South Africa is a consumption economy in his study. Syden (2012) also notes that consumption is encouraged by many having access to credit facilities.

Pangestu and Karnadi (2020) have found that materialism also affects people's consumption behaviour. Potrich and Vieira (2018) conclude that the more financial literate an individual is, the less materialistic that individual will be, which help in managing the adverse effects of the consumption culture of South African households on their savings behaviour (Syden, 2012). It has been found that financially literate millennials demonstrate good financial behaviour for economic security and well-being. Financial literacy affects the ability of millennials to make sound financial decisions related to the saving and consumption behaviour of that individual (Dewi, Febrian, Effendi, Anwar & Nidar, 2020). Duh (2011) found that the materialistic behaviour of millennials in South Africa had a negative relationship with conservative money attitudes, which savings and budgeting form part of. This study was conducted in this context to ascertain the scientific relationship between financial literacy variables and the materialism of millennials.

### **1.1. Problem Statement**

Numerous studies have been conducted to investigate the financial literacy and savings behaviour of individuals in South Africa, such as Mbukanma (2019), Nanziri and Leibbrandt (2018), Lusardi and Oggero (2017), De Bassa Scheresberg and Lusardi (2014) and Syden (2012). In addition, Pangestu and Karnadi (2020) looked at the impact of financial literacy and materialism on savings behaviours. All these studies have concluded that a high level of financial literacy has a positive effect on the savings behaviours of individuals. However, on the other hand, materialism has also been found to

negatively affect an individuals' savings behaviour (Pangestu & Karnadi, 2020; Duh & Struwig, 2015). A high level of materialism has been associated with a decrease in the savings behaviour of individuals (Pangestu & Karnadi, 2020), and a low financial literacy rate has been associated with a low savings rate and decreased planning for the future (Nanda & Banerjee, 2021; Lusardi & Oggero, 2017). Although materialism forms no part of evaluating if an individual is financially literate, it is believed to be essential for a person to be seen as being financially literate to be aware of the effects that materialism has on the financial well-being of the individual (Iannello, Sorgente, Lanz & Antonietti, 2021; Garðarsdóttir and Dittmar, 2012). Thus, the chances for millennials to make uninformed financial decisions that could affect their future increases when they have low financial literacy skills.

Although research has been conducted on the financial literacy and the savings rate of South Africa, as well as the effects of these two on each other, no research currently exists that seeks to investigate the relationship between financial literacy variables and materialism scores of millennials, especially in the Phokwane Local Municipality (PLM) South Africa. Not knowing where improvement is needed may lead to undesired financial decisions taken by millennials, as this may be seen as the right financial decisions due to a lack of financial literacy skills. Also, no corrective steps or assistance can be provided to the millennials in the PLM if no research data exists to determine millennials' savings behaviour. It becomes vital to conduct a study to identify how financial literacy correlates with millennials' materialism. It is anticipated that the findings of this study will provide stakeholders and policymakers within the PLM area with the necessary data to know where improvement is needed and where support will need to be provided.

## 1.2. Research Objectives

The primary objective of this study was to ascertain the relationship between financial literacy variables and millennials' materialism residing in the Phokwane Local Municipality, South Africa. To achieve this objective, the following hypothesis was formed to provide the researchers with the pathway to attain a scientific finding:

$H_1$  - Financial literacy variables are positively related to millennials' materialism.

$H_0$  - Financial literacy variables are negatively related to millennials' materialism.

## 2. Literature Review

The World Bank described the current global economy recession resulting from Covid-19 pandemic as the worst recession that we have experienced since World War II (Winck, 2020; World Bank, 2020). Many of the individuals that form part of the millennial generation have lived through three recessions in South Africa since 1994 (Stats SA, 2020). These recessions have highlighted the role that financial literacy, materialism and household savings behaviour play in the lives of millennials in making rational financial decisions. Therefore, if a lack of financial knowledge is identified in millennials, it will impact their financial decision-making.

The South African government has initiated many educational programmes to assist South Africans in becoming financially literate and having good savings behaviour. Through this financial literacy and

savings campaign, the South African government and other institutions have improved the citizens' financial literacy levels. However, the same cannot be said about the savings and investment rate of South Africans, which is the lowest compared to the four nations mentioned previously. It outranks other emerging economies, such as Brazil, China, India, and Russia (Lusardi & Oggero, 2017). South Africa is also classified by many as a consumption nation, and this has a connection with the materialistic attitudes that individuals may have. Insight into millennials, financial literacy and materialism are provided below.

## **2.1 The Millennial Generation**

Millennials are those individuals born between 1980 and 1999, although no consensus has been reached on the exact years where the millennial generation starts and end. For this study, the researchers have used the age definition provided by Stats SA (Stats SA, 2018). Thus accordingly, for this study, the age of millennials ranged between 22 and 41 in 2021. The name “millennials” is derived from the fact that these individuals were the first to “come of age” in the new millennium (Pew Research Centre, 2010). William Strauss and Neil Howe have been credited widely for giving this generation its name (Kurian, Somaiya, Barrons, Olowe, Dosu, Curtis & Urban, 2017; Horovitz, 2012). Moreover, they are one of the largest generations in history (Goldman, 2021). Millennials form part of the civic generations where their parents protectively nurtured them, emphasising adherence to a group and social norms. When they reach adulthood, this generation resolves societal challenges and builds institutions (Winograd & Hais, 2011).

Millennials are seen as different from previous generations as they are technologically savvy (Nakagawa & Yellowlees, 2020). The millennial generation was born during a time in history that saw the dawn of tremendous technological advancements (Stats SA, 2018). Also known as the first “always connected” generation through digital technology and social media (Timmerman, 2015), their smart devices are almost seen as a part of their body (Pew Research Centre, 2010). The fact that millennials are connected through the internet makes them more alike than any other generation. Millennials' addiction to technology has created a situation where many check their smartphones nearly every hour and experience phantom pocket-vibration syndrome (Stein, 2013). In addition, millennials' use of technology has created an era of online social activism, and they use technology to make sure that their voices are heard (Nakagawa & Yellowlees, 2020). Perhaps, technology advancement informs a broad life exposure (with high cost), which has enhanced the high rate of materialism among millennials. Thus, the millennial generation keeps up with current trends and try to incorporate these new trends into their lives at a higher cost than generations before them (Timmerman, 2015).

### **2.1.1. Characteristics of the Millennial Generation**

Leslie, Anderson, Bickham, Horman, Overly, Gentry and King (2021) mention that with each generation, changes in the characteristics (distinguishing trait, quality, or property) of these generations occur, and the generations become defined by these different characteristics. The advancement that occurs in each generation determines their characteristics as they move through their lives (Timmerman, 2015). Smith and Nichols (2015) mention that the external environment also influences the behavioural background of the millennial generation. Pew Research Centre (2010)

explains that any differences between generations at any moment in time could result from three overlapping processes. These processes are detailed as:

**Life-cycle effects** - Younger individuals might differ from their older counterparts at the current moment but may well become like them as they age.

**Period effects** - Major events such as the Covid-19 pandemic, economic downturn, war, breakthroughs in medicine and technology will affect all individuals simultaneously. However, the degree differs according to individuals' life cycles.

**Cohort effects** - Period events and trends profoundly imprint young individuals, mainly because their core values are still evolving. These imprints may be with them for the rest of their lives.

Millennials are highly optimistic, even though they came of age in difficult economic periods. The millennial generation is believed to become the primary force shaping the United States of America (Winograd & Hais, 2011). Main (2017) mentions that millennials have also been described as more open-minded and more supportive of equal rights issues for minorities. Kurian, Somaiya, Barrons, Olowe, Dosu, Curtis and Urban (2017) mention that millennials have grown up in an interconnected world and have been exposed to more information, cultures, people, and travel opportunities than any other previous generation, which has made them more tolerant of diversity. They demand having a work-life balance and are also curious and confident. They are also cooperative team players, rule followers and accept authority (Howe & Strauss, 2000). Furthermore, they are seen as determined individuals (Timmerman, 2015). Botha (2019) mentions that the millennial generation is taking a stand for sustainable living to improve the health of Earth for future generations; for example, ecotourism is their preferred form of tourism.

Millennials are, unfortunately, also negatively known as the instant gratification generation. This generation wants whatever they want immediately and believe they can become anything they want immediately. They are also seen as complicated, lazy, selfish, entitled, narcissistic, materialistic, extremely cautious and are addicted to technology (Knoetze, 2018; Smith & Nichols, 2015; Timmerman, 2015; Stein, 2013), the reason being that millennials are growing up and live in a world where information is quickly obtained with the assistance of technology. The lives of millennials are also dependent on technology at a much earlier stage in their lives (Smith & Nichols, 2015; Emeagwali, 2011). Hayes, Parks, McNeilly and Johnson (2018) mention that the top three traits of millennials from literature are tech-savvy, lazy/unmotivated, and self-centred. Although these traits cannot be concluded as universally held by all millennials, it shows the other generations' negative attitudes towards millennials. Although millennials may have personality traits that are the same, they are not monolithic. There are as many differences between millennials as millennials and other generations.

### **2.1.2. The Millennial Generation in South Africa**

Millennials in South Africa grew up during the twilight of apartheid and the transitioning period into a democratic South Africa. The latter of this group (from 1994 to 1999) was born into democracy (Lappeman, Egan, Rightford & Ramogase, 2021). Many South African millennials came of age in a time of economic difficulty, and some have already experienced three recessions, which has contributed to their reluctance to invest (Stats SA, 2020; Botha, 2018). This reluctance to invest is grown out of a distrust of financial markets, which failed many times in their young lives. Compared

to previous generations at the same age as millennials, millennials are lagging financially. Millennials experienced a lower growth rate in their first decade of employment (Deloitte, 2019) and have more debt than previous generations before them (van Deventer, 2020).

Millennials are also known to be ethnically diverse and socially tolerant (Winograd & Hais, 2011). From a South African millennial perspective, they have been able to overcome most of the previous socio-political barriers amongst the different population groups in South Africa and can see the view of others (Knoetze, 2018; Smith & Nichols, 2015; Emeagwali, 2011). The stress levels of millennials in South Africa were one of the highest compared to 45 other countries in the Deloitte Global 2021 Millennial and Generation Z survey (Deloitte, 2021). Four out of ten millennials said that they felt stressed all the time. Seventy per cent of the millennials in the South African group that took part in the survey felt anxious and worried about their long term personal financial future and the welfare of their families. In addition, 60 to 62 per cent of them thought that their day-to-day finances also contributed to their anxiety and stress levels (Deloitte, 2021). Although, in a South African context, race and income determine the access that an individual has to technology despite the increase of accessibility in current South Africa, which is also influenced by where the individual resides, be it in a rural or urban environment.

## **2.2. Financial Literacy of Millennials in South Africa**

South Africa is a major emerging economy, and it has been indicated that South Africa has a financial literacy rate of 42% (Lusardi & Oggero, 2017). Financial literacy increases sharply with education, income, and wealth in SA. Where respondents completed matric or completed a diploma or degree at university, the financial literacy of such individuals increased. South Africa follows much of the patterns found in other countries regarding financial literacy. The less educated and lower-income respondents display lower levels of financial literacy, and only 21.9% of the population of PLM completed grade 12, and only 6.6% completed a higher education qualification (Stats SA, 2020).

With the increase in complexity of financial products, financial knowledge is essential. Klapper, Lusardi and Van Oudheusden (2020) mention that without understanding basic financial concepts, people are not well equipped to make decisions related to financial management. Financially literate people could make informed economic choices regarding saving, investing, borrowing and more. Financial literacy is also related to economic well-being, as financially literate individuals are more likely to have a pension fund, own mutual funds, stocks, or shares (Nanziri & Olckers, 2019; Mbukanma & Rena, 2018). Interestingly, Potrich, Vieira & Kirch (2015) found that women who have dependent family members, lower education levels, and low individual and family income levels are more likely to belong to the group associated with low financial literacy levels. For example, in South Africa, 41.8% of households are female-headed households (Galal, 2021).

Roberts, Struwig, Gordon and Radebe (2018) mention that with the liberation of the South African economy (which was in an era associated with millennials), consumers' opportunities have been increasing. These opportunities have been offered and taken by South African consumers, and today the South African economy is known as a consumption economy. It is, however, understood that all living beings on planet Earth consume. Unfortunately, we as humans have taken consumption to greater levels. Currently, the household debt to disposable income ratio of South Africa stands at 75.3% (SARB, 2021). The household debt to disposable income ratio of South Africa indicates that South African households spend three-quarters of their take-home income on servicing debt. Perhaps,

millennials are not excluded from this, as they occupy the highest age grade and financial inclusion in the South African population, thus exposing them to increase fragility to external financial shocks.

A study done by the Federal Reserve Bank of St Louis in the USA (2020) mentions that most millennials born in the 1980s will probably never recover from the global recession, and from a South African perspective, millennials have experienced three recessions in their lives so far. The local socio-economic situation in South Africa has also not supported wealth creation for millennials (Joseph, 2018). Besides, Bidoli and Morobane (2017) found that the South African economy is one of the most unequal globally, and TransUnion (2020) found that millennials in South Africa were particularly impacted financially by the Covid-19 pandemic. Mbukanma (2019) states that human survival is intertwined with money management, and it has been established that a lack of financial knowledge in households has caused much stress and uncertainty.

The current financial environment has become increasingly complex for individuals, and financial literacy is recognised as a critical proficiency for individuals to take charge of their economic environment. Similarly, Mbukanma and Rena (2021) Potrich *et al.*, (2015) mention that an essential component for successful adult life is associated with their level of financial literacy. Being financially literate will assist an individual in having a short-term and long-term view of their finances. As such, Mbukanma and Rena (2022) and Lusardi and Mitchell (2014) emphasised that financial literacy is a domain with several significant variables in individuals' financial decision-making. Thus, some of these vital variables are discussed as follows:

**Money management ability** – Financial literacy improves an individual's day-to-day money management ability. A financially literate family would always establish a budget to track their financial activities throughout a particular time.

**Financial planning** – Financial literacy provides individuals with the proper knowledge to comprehend financial information and ideas and use that knowledge to make good financial planning for sound financial decisions.

**Financial products** – The capacity of individuals to choose the appropriate financial products is an essential element of financial decision-making guided by financial literacy. Because modern financial product marketplaces are increasingly complicated, an improvement in financial literacy would boost sound selection of financial products and services, stock market participation, and retirement planning.

**Savings and investment** – Differences in behavioural biases and external factors may impact the choice to save and how much to save. However, some people seek immediate satisfaction (i.e., instant consumption). On the other hand, financial literacy offers a healthy financial mindset for families to set aside a number of their earnings to save and invest for rainy days and capital growth.

**Money attitude** – Individual daily activities involve the exchange of money; thus, controlling the exchange depends on the individual money attitude. However, financial literacy informs a conscious money attitude and provide individuals with the knowledge of financial issues, allowing them to evaluate the financial consequences of their choices.

Although financial literacy is still considered a relatively new field of study, it has started to gain much attention from governments, citizens, and researchers in recent years as global financial and economic environments are flooded with complex products and services.

### 2.3. Materialism amongst Millennials in South Africa

In previous research, the concept of materialism has been viewed from economic, sociology, and consumer perspectives. The most prominent of these perspectives are consumer researchers, such as Sirgy, Yu, Lee, Joshanloo, Bosnjak, Jiao and Grzeskowiak (2021) and Vredeveld (2021), who defines materialism as the importance of worldly possessions. At the highest levels of materialism, such possessions assume a central place in a person's life and provide the most significant sources of satisfaction and dissatisfaction. Similarly, Cappetto and Tadros (2021) and Zhang, Hawk, Oprea, De Vries, and Branje (2020) defines a materialistic person as an individual that gives too much importance to material possessions and acquisition and puts them at the centre of their lives, value possessions as a means of achieving happiness and use possessions as indicators of success and status. Materialism in recent times has become highly focused on the part of consumers' economic activity. However, research has mainly reported the negative consequences of living a materialistic lifestyle, but in the present societal structure, materialistic lifestyles also have some positive consequences, as detailed below:

**Table 1. Positive and Negative Consequences of Materialism**

Positive consequences	Negative consequences
<b>Contribution to business profits and societal standard of living</b>	Source of unhappiness
<b>Materialists are trendsetters, early adopters and opinion leaders</b>	Lower self-actualisation
<b>Material objects are self-esteem repairers and identity constructors</b>	Poor school performance
<b>Family stress buffers</b>	Life dissatisfaction
<b>Private and public self-indicators</b>	Insatiable desire for higher income
<b>Provider of a sense of belonging</b>	Debt accumulation
<b>Satisfier of the need for uniqueness</b>	Depletes natural resources
	Intolerance
	Neglect of public goods in favour of personal gratification.
	Low savings and economic crisis

Cappetto and Tadros (2021) and Sirgy *et al.* (2021) note that to be viewed as financially literate, an individual needs to be aware of the effects that materialism and dominant cultural values have on financial well-being. South Africa has been classified as having a consumption culture (Mbukanma, 2019). However, South Africa also has a low savings rate and is one of the most economically unequal countries, with an unemployment rate of 34.4%, which is also one of the highest in the world (Omarjee, 2021; SARB, 2021). The study of Botha (2018) revealed that millennials in South Africa are overspending, reiterating that the implication will continue to create financial imbalance and economic vulnerability. It also reflects that they are spending more than their monthly salaries, and they are purchasing products on credit to give others the perception that they are successful.

Practically, there has been some specific forms of materialism that have been seen in townships in South Africa, especially amongst low-income black youth, is known as “Izikhothane” and “slay queens”. These subcultures have forms of materialism, such as an obsession with fashionable clothing brands and expensive alcohol. These youths adopt these materialistic behaviours to gain acceptance from their peers. The quest for materialism in South Africa also resulted in young women having relationships with more mature older men to receive money and gifts from their much older boyfriends (Ravhuhali, Netshirembe, Nendauni, Lavhelani, & Mboweni, 2020; Mchunu, 2016), de Klerk (2020) mentions that the fast-changing society, technological advancement, and complex economic landscape in south Africa contributed to millennials' extravagant spending and materialistic lifestyle. Thus,



considering the negative consequences of a materialistic lifestyle, it is vital that individuals and millennials especially are conscious of their attitude towards spending to cushion their future financial life.

### 3. Research Methodology

This study aims to ascertain the relationship between financial literacy variables and the materialism of millennials statistically. A quantitative research method was adopted to help achieve the numeric nature as informed by the study's objectives. Accordingly, quantitative research examines relationships between variables and numerically measures and analyses data using various statistical and graphical techniques (Creswell, 2014). A target population of millennials in Phokwane Local Municipality (PLM) was chosen for this study, using purposive and convenient sampling techniques. The focus study sample constitutes millennials in PLM with ages ranging between 22 to 44 years old, as explained in the literature section. Accordingly, 21953 (35.8%) millennials live in PLM (Stats SA, 2020). As such, a sample size determination formula by Krejcie and Morgan (1970) was used to obtain a sample size of 378 from a total of 21953 millennials living in PLM. However, only 125 millennials completed the questionnaire, which constituted 33% of the projected sample size of the participants. Saunders *et al.*, (2016) mention that between 30 and 50% response rate for online questionnaires is acceptable and that response rates of as low as 10% can many times be anticipated.

Furthermore, a self-administered questionnaire through Question Pro was used to obtain responses from the participants. To achieve the study's objective, inferential statistical analysis was conducted using SPSS Version 26. In addition, content, construct validity, and reliability tests were conducted to ascertain the extent to which data collection methods and analysis procedures produce consistent and reliable findings. Thus, ethical permission was vital, considering that the data for this study was collected from individual and as such, ethical certificate with the number NWU-00041-21-A4 was obtained from NWU's Economics and Management Sciences Ethics Committee (EMS-REC). However, it was anticipated that the selected research approach for this study would assist in accomplishing the study's research objective.

### 4. Data Analysis and Discussion of Results

As emphasised by Nishina, Kawamura, Okamoto and Takahashi (2018), engaging in empirical research embody detailed descriptive and inferential analysis and interpretations of responses from participants. Thus, the purpose of data analysis is to understand the various constitutive elements of data through investigating the relationship between concepts and variables to ascertain if there are any patterns or trends among the variables that can be identified or isolated or to establish themes in the data (Nishina *et al.*, 2018; Shields, Funk & Bredemeier, 2018). Accordingly, when the analysis results are taken, inference and conclusions on the meaning and implications of the findings are made (Andereck, 2017; Cranmer, Leifeld, McClurg & Rolfe, 2017). This section of the study provides a reliability test, correlation analysis and discussion of results.

Cronbach's alpha was used to test the reliability of the data collection instrument used for this study. The Cronbach alpha values reported for the study are above the guideline value of 0.7 as recommended by (Sobri, Bafadal, Nurabadi & Gunawan, 2019; Bujang, Omar & Baharum, 2018).

Table 2 provides the detail of the Cronbach alpha values, which indicates that the instrument used in this study are reliable.

**Table 2. Reliability Test Result**

Financial Literacy Variables	Questions	Cronbach's Alpha	Mean	SD
Money management	MM1–MM16	0.83	2.99	0.68
Financial planning	FP1–FP9	0.82	3.04	0.88
Financial products	FinProd1– FinProd7	0.78	2.42	0.82
Savings and investment	SI1–SI10	0.78	2.29	0.63
Money attitudes	MA1–MA11	0.91	3.02	0.94
Materialism of millennials	MatMil1–MatMil9	0.94	2.68	1.09

The illustration in Table 2 shows the reliability test results of the variables as informed by millennials' financial literacy domain and materialism. In practice, five variables, namely money management, financial planning, financial products, savings and investment, and money attitudes, were identified from previous literature as critical variables of financial literacy. Thus, the Cronbach's Alpha of these variables obtained the recommended reliability value of the data collection instrument used in this study.

Accordingly, inferential statistics make it difficult to avoid errors, and it helps researchers make sound inferences about the population in question (Siedlecki, 2020). Indeed, inferential statistical tests include, among others, ANOVA, T-Test, Chi-Squared, regression, correlation analysis and hypothesis testing (Wang, Song, He & Bai, 2017). However, in this study, Pearson correlation analysis was conducted, using data collected from respondents to obtain the coefficient range within the variables (relationship) used in the study. Thus, Pearson correlation analyses are interpreted based on the significance of their coefficient range, which is represented as 'r', and it is defined as the covariance of the variable divided by the product of their standard deviations (Xu & Deng, 2018). Thus, Table 3 presents the correlation coefficients output for this study.

**Table 3. Correlation Coefficients Output**

		MM_Avg	FP_Avg	FinProd_Avg	SI_Avg	MA_Avg	MatMil_Avg
<b>MM_Avg</b>	Correlation Coefficient	1.000	0.731	0.702	0.588	-0.479	-0.504
	Sig. (2-tailed)		<0,0001	<0,0001	<0,0001	<0,0001	<0,0001
<b>FP_Avg</b>	Correlation Coefficient	0.731	1.000	0.664	0.571	-0.605	-0.619
	Sig. (2-tailed)	<0,0001		<0,0001	<0,0001	<0,0001	<0,0001
<b>FinProd_Avg</b>	Correlation Coefficient	0.702	0.664	1.000	0.613	-0.533	-0.580
	Sig. (2-tailed)	<0,0001	<0,0001		<0,0001	<0,0001	<0,0001
<b>SI_Avg</b>	Correlation Coefficient	0.588	0.571	0.613	1.000	-0.303	-0.407
	Sig. (2-tailed)	<0,0001	<0,0001	<0,0001		0.001	<0,0001
<b>MA_Avg</b>	Correlation Coefficient	-0.479	-0.605	-0.533	-0.303	1.000	0.870
	Sig. (2-tailed)	<0,0001	<0,0001	<0,0001	0.001		<0,0001
<b>MatMil_Avg</b>	Correlation Coefficient	-0.504	-0.619	-0.580	-0.407	0.870	1.000
	Sig. (2-tailed)	<0,0001	<0,0001	<0,0001	<0,0001	<0,0001	

Pearson correlation coefficient provides the yardstick for the test of significance, explanation, and prediction of a variable from other variables. Thus, the correlation coefficients in Table 3 were interpreted based on the guidelines described by Weinberg and Abramowitz (2016), which based its interpretation on when  $0.0 \leq r < 0.3$  indicates a weak correlation,  $0.3 \leq r < 0.5$  indicates a moderate correlation and  $0.5 \leq r \leq 1$  indicates a strong correlation. Accordingly, the correlations between money management and financial planning ( $r = 0.731$ ), choosing the right financial products ( $r = 0.702$ ) as well as saving, and investment decisions ( $r = 0.588$ ) are practically significant. The correlations are positive, reflecting that as respondents tend to strongly agree with the statements within the money management variable, they also tend to agree with the other variables strongly. Nevertheless, the correlations between money management and money attitudes ( $r = -0.479$ ) and materialism ( $r = -0.504$ ) are practically significant. Nevertheless, the correlations are negative, reflecting that as respondents tend to strongly agree with the statements within the money management variable, they will strongly disagree with the statements within the other two variables.

Similarly, the correlations between the financial planning variable and money management factor ( $r = 0.731$ ), choosing the right financial products factor ( $r = 0.664$ ), as well as savings and investment decisions ( $r = 0.571$ ), indicates a strong positive correlation, which reflects that as respondents tend to agree with the statements within the financial planning variable strongly, they will also tend to agree with the other variable strongly. On the contrary, the correlations between the financial planning and money attitudes ( $r = -0.605$ ) and materialism ( $r = -0.619$ ) are practically significant. However, correlations are negative, reflecting that as respondents tend to agree with the statements within the financial planning variable strongly, they will tend to strongly disagree with the statements of money attitudes and materialism variables.

The variables under choosing the right financial products, indicates a strong positive correlation with the variables of money management factor ( $r = 0.702$ ), financial products factor ( $r = 0.664$ ) and savings and investment decisions factor ( $r = 0.613$ ) but on the contrary, indicates a strong negative correlation with money attitudes ( $r = -0.533$ ) and materialism ( $r = -0.580$ ) variables. Similarly, the variable of savings and investment indicates a moderate negative correlation with the variables of money attitudes ( $-0.303$ ) and materialism millennials ( $r = -0.407$ ), reflecting that as respondents tend to strongly agree with the statements within the savings and investment variable, they will tend to strongly disagree with the statements of money attitude and materialism of millennials. On the contrary, the variable of savings and investment shows a strong positive correlation with the variables of money management factor ( $r = 0.588$ ), financial planning ( $r = 0.571$ ) and financial products factor ( $r = 0.613$ ), indicating that as respondents tend to agree with the savings and investment statements strongly, they will also tend to agree with the statements of other three variables strongly.

Furthermore, the correlations between the money attitude and materialism of millennials variable ( $r = 0.870$ ) indicate a strong positive correlation. Moreover, the correlations are positive, reflecting that as respondents tend to agree with the money attitude variable statements strongly, they will also tend to agree with the materialism of millennials variable strongly. However, the correlations between the money attitude variable and money management factor ( $r = -0.479$ ), financial planning factor ( $r = -0.605$ ), choosing the right financial products ( $r = -0.533$ ) and savings and investment ( $r = -0.303$ ) variable are practically significant but negatively correlated. Therefore, it reflects that as respondents strongly agree with the statements within the money attitude variable, they will strongly disagree with the statements within the other variable. Similarly, the variable of millennials materialism and money management factor ( $r = -0.504$ ), financial planning factor ( $r = -0.619$ ), choosing the right financial

products ( $r = -0.580$ ) and savings and investment ( $r = -0.407$ ) variable are practically significant, but negatively correlated. While the variable of millennials' materialism and money attitude ( $r = 0.870$ ) shows a strong positive relationship, as respondents tend to agree with the materialism of millennials variable statements strongly, they will also tend to agree with the money attitude variable strongly.

## 5. Key Findings and Recommendations

It has become vital for every individual to have the proper financial knowledge to make sound financial decisions with the current economic situation across the globe as individual wants are unlimited with limited financial resources. However, as found from previous literature, financial literacy has shown a significant impact as it provides individuals with the right knowledge to make sound financial decisions. Although, some school of thought has added that financial literacy with self-discipline will yield more logical financial decisions. This study was motivated to identify the variables of financial literacy and scientifically test its relationship with the materialism of millennials in PLM, South Africa. Thus, the key findings of this study are detailed below:

**Evidence from previous literature** – Several previous scholars has revealed that financial literacy is critical in assisting the individual in making the right financial choices and planning, choosing financial products, savings, and investment. As such, stakeholders in charge of the savings campaign in South Africa should incorporate financial literacy variables into their programme owing to its potential.

**Relationship between financial literacy variables** – The findings of this study revealed the positive relationship between money management, financial planning, financial products, savings, and investment. The implication of this positive relationship shows that the increase in the knowledge of one of these variables indicates an increase in other variables provides the millennials with a sound financial foundation to make the right financial decisions. However, it was also revealed that among the financial literacy variables used in this study, the money attitude of millennials has a negative relationship with others. The indication of this negative relationship means that as the millennials know financial literacy, greater efforts and discipline are needed to manage their money attitude to balance up with the other financial literacy variables.

**Relationship between financial literacy variables and materialism of millennials** – An increase in millennials' financial literacy in PLM decreases millennials' materialistic behaviour. Although materialism has positive and negative consequences, the negative consequences are more prominent, as millennials was found to put a high value on acquiring material possessions as they failed not have a conservative money attitude. A significant focus should thus be on programmes that focus on improving millennials' financial literacy.

**Economic implications of financial literacy** – The growing importance of financial literacy in the lives of both the young and old can never be overemphasised. The knowledge of millennials having the grasp of financial literacy assists them in making sound financial decisions and informs an extended effect on the national economic growth, as millennials spend wisely, save, and diversify in investment. Hence, it is recommended that initiatives that promote financial literacy among millennials in South Africa should be encouraged, as millennials occupy a more significant percentage of the South African population.

## 6. Conclusion

This study aimed to ascertain the scientific relationship between financial literacy variables and the materialism of millennials in PLM South Africa. To achieve this purpose, an in-depth literature review was conducted, where the researchers identified the variables of financial literacy, which include money management, financial planning, financial products, savings, investment, and money attitude. Accordingly, these variables were used to build quantitative questionnaires to collect data from millennials in PLM South Africa. An inferential statistic was conducted using SPSS version 26 to ascertain the correlation (relationship) between financial literacy variables and the materialism of millennials. The study's findings revealed that all the financial literacy variables are strongly positively correlated except money attitude. The implication of the positive correlation indicates that the more knowledge the millennial has with one financial literacy variable, the more they tend to have in other variables except for their attitude towards money, which partly define their personality as millennials.

The findings of this study also support the assumptions of previous literature that financial literacy contributes significantly to sound financial decision making and money management. On the contrary, the relationship between money management, financial planning, financial products, savings, and investment is negatively correlated with millennials' materialism. This negative correlation indicates that even though millennials are financially literate, they are still materialistic. In conclusion, the dynamics of acquiring knowledge speaks very little when the knowledge is not implemented or practical. As such, this study recommends that policymakers and stakeholders in charge of financial literacy and savings campaigns in South Africa should focus more on the initiatives that promote the application and implementation of financial literacy knowledge and financial discipline by millennials and other active members of South African households.

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