

-RESEARCH ARTICLE-

THE RELATIONSHIP BETWEEN FINANCIAL LITERACY, FINANCIAL TECHNOLOGY, AND FINANCIAL BEHAVIOUR AMONG HIGH SCHOOL TEACHERS IN AN EMERGING ECONOMY

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—Abstract—

This study examined the influence of financial literacy and financial technology on the financial behaviours of high school teachers within an emerging economy. Notably, financial illiteracy and poor financial behaviours are recognised as significant factors affecting teachers' well-being, particularly in South Africa. A lack of financial knowledge has led many teachers to adopt detrimental financial habits, contributing to considerable stress. Despite the established link between financial distress and teacher attrition, research specifically addressing financial literacy and possible interventions for teachers in South Africa remains limited. This paper addresses this gap in the literature. The Theory of Planned Behaviour was applied as the study's theoretical foundation, as it effectively captures the complexities of human social behaviour. A positivist paradigm and quantitative methodology were employed, with random sampling used to select 246 high school teachers, and data gathered through questionnaires. The data were analysed in SPSS to generate both descriptive and inferential statistics, utilising percentage frequencies and data ranking to categorise certain variables. Additionally, Cronbach's alpha was used to assess internal consistency and reliability. Results indicated that while most participants demonstrated a high level of financial knowledge, many still exhibited poor financial behaviours, contributing to stress and, in some cases, resignation. The study offers practical and policy recommendations, advocating for government-led teacher training in financial literacy, continuous professional development, and public awareness initiatives. This research aims to raise awareness and contribute to knowledge regarding the professional development of teachers in the education sector.

Keywords: Financial Technology, Financial Behaviour, Financial Literacy

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INTRODUCTION

This research focuses on the impact of financial literacy and financial technology on the financial behaviours of high school teachers, with the key variables under investigation being financial literacy, financial technology, and financial behaviour. [Ripain et al. \(2017\)](#) define financial literacy as "a combination of awareness, knowledge, skills, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual well-being." Financial literacy plays a vital role in daily activities, as understanding financial information can enhance decision-making related to financial planning, investment and wealth accumulation, debt management, and pension planning ([Dumitru-Cristian & Dornean, 2012](#); [Dwiastanti, 2015](#); [Husna & Desiyanti, 2016](#)). Consequently, financial literacy encompasses a fundamental grasp of how money operates and the skills needed to earn, manage, and invest it effectively, enabling individuals to make informed financial decisions that benefit both themselves and others ([Aprea & Wuttke, 2016](#); [Arthur, 2012](#); [Bonga & Mlambo, 2016](#)).

Definitions of financial technology vary across sources, with different elements emphasised by various authors. Synthesising multiple definitions, ([Khan et al., 2020](#)) provide a comprehensive description: "financial technology is the ability of an industry to arrange financial services for private individuals and businesses in the most efficient way at the lowest cost, achieved through technical innovation." According to [Leong and Sung \(2018\)](#), financial technology will play a pivotal role in shaping the future of the financial sector. Innovations in financial technology are already disrupting traditional financial markets ([Lee & Shin, 2018](#)), as evidenced globally by the rise of mobile wallets, mobile banking, and financial applications. Enhancements in the efficiency and effectiveness of financial technology have impacted a range of areas, transforming banking operations, methods of capital raising, and even the concept of money itself ([Zavolokina et al., 2017](#)).

Based on various definitions, financial technology is recognised as a key instrument for accelerating a country's economic growth. Financial technology enables the creation of new opportunities, drives innovation, and facilitates knowledge sharing, all while simplifying economic transactions and supporting the production, consumption, and distribution of goods and services. The advancement of payment systems through financial technology has enhanced their efficiency, security, and reliability, providing substantial benefits to consumers, businesses, and the broader economy. Financial behaviour can be understood in multiple ways ([Jorgensen et al., 2017](#); [Tang et al., 2015](#)). At the individual level, it encompasses how one manages personal finances. [Asaad \(2015\)](#) describes financial behaviour as an individual's attitudes and actions within a financial context. An individual's financial behaviour is shaped by their attitudes and practices toward managing their finances ([Tang et al., 2015](#)). It refers to the steps people take to handle their finances with the aim of achieving financial goals

(Tang et al., 2015) and reflects how individuals act when confronted with financial decisions (Tang et al., 2015). According to Jorgensen et al. (2017), a household's or individual's financial behaviour can also be seen as the effectiveness with which they manage resources, such as saving, spending, budgeting, and investing.

LITERATURE REVIEW

Wentzel (2016) highlights that South Africa ranks poorly in global financial literacy surveys, despite various initiatives to enhance financial education. Wentzel (2016) further observes that "households are experiencing rising financial stress, with the household debt-to-income ratio nearing historical highs and the household savings-to-income ratio in negative territory." This situation has been exacerbated by the rapid growth of financial technology (Khan et al., 2020). While financial technology brings both advantages and challenges, a significant drawback is that increased access to information can result in poor financial decisions if the information is misinterpreted (Skagerlund et al., 2018). Individuals with limited financial literacy often find themselves unprepared to handle unexpected financial information that financial technology may present (Jorgensen et al., 2017).

In recent years, South Africa has witnessed a rise in mass resignations and early retirements among public school teachers, largely attributed to financial distress and high levels of indebtedness, which have escalated into a national crisis (Mafukat, 2016). Tackling this issue is essential for advancing financial literacy education across the country. Compen et al. (2019) highlight the pivotal role teachers play in promoting financial literacy; however, (Mafukat, 2016) contend that teachers themselves require financial literacy education to strengthen their financial management skills. Many teachers are significantly indebted to loan sharks and informal lenders (Mafukat, 2016). Although there is extensive research on financial literacy, few studies examine teachers' financial literacy and behaviour, particularly in relation to financial technology (Farida et al., 2021). This study aims to fill this gap by investigating the financial literacy and behaviour of teachers in KwaZulu-Natal within the context of financial technology.

Various factors and challenges shape the state of financial literacy within South Africa's emerging economy, including the quality of education. Matemane (2018) notes that financial literacy levels among black South Africans are generally lower than those of their white, coloured, and Indian counterparts. This disparity persists even among black South Africans with tertiary education and professional experience, casting doubt on the assumption that higher education is necessarily associated with increased financial literacy, while limited education correlates with lower literacy. If this theory holds, it implies that the educational quality available to black South Africans remains insufficient (Jali et al., 2023).

International, (2020) notes that while South Africa has made significant strides in

improving the living standards of black citizens since gaining independence, including the establishment of numerous schools across the country, increased access to education does not guarantee high educational quality for all individuals. As such, the education system continues to mirror the country's persistent socioeconomic inequalities. Reports reveal that at least 71% of South African students attend schools where over 30% of the learners come from disadvantaged backgrounds (OECD, 2019). Additionally, 77.3% of public-school students benefit from feeding schemes (STATSSA, 2019). These statistics highlight the challenging educational conditions faced by both teachers and students, contributing to the overall low quality of education for black students. South Africa is consequently recognised as having one of the most unequal education systems globally (Economist, 2017), further suggesting that the poor quality of education in these schools may be a contributing factor to the insufficient financial literacy skills of their students.

Over-indebtedness is a significant factor contributing to low financial literacy in South Africa's emerging economy. The National Credit Regulator (2019) defines it as the inability to pay bills on time, leading to stress and anxiety. The financial technology sector offers complex products that require careful consumer selection. It is essential for individuals, including teachers, to manage finances and save for retirement. Financial literacy helps avoid poor decisions and unsuitable products (Wentzel, 2016). Rising debt and decreasing savings are increasing financial stress among South African households (Ryan, 2018; Wentzel, 2016). Limited financial knowledge has led many to make poor financial choices, worsening their debt levels (Stoddard, 2021). Roets (2021) reports that approximately 9.5 million South Africans are in debt, a figure that may have worsened due to the Covid-19 pandemic.

The high unemployment rate is a critical factor influencing financial literacy in South Africa's emerging economy. As of 24 August 2021, the official unemployment rate was reported to be 34.4%. This high rate can be partly attributed to the impact of the Covid-19 pandemic, which led to widespread business closures and employee retrenchments. The pandemic also caused a decline in demand and revenue for goods and services, resulting in significant cash flow and liquidity challenges for businesses (Project, 2020). Consequently, supply chains were disrupted, consumers faced income losses, and many workers were laid off, all of which negatively affected consumer spending and consumption, further diminishing sales for numerous businesses (Project, 2020).

Stoddard (2021) highlights that the high unemployment rate and the increasing number of retrenchments in recent years have led many South Africans to deplete their retirement savings, accumulate more debt, and cancel medical aid and life insurance policies in a bid to reduce expenses as their income declines. This reliance on long-term savings, rising debt, and the cancellation of risk policies exposes individuals to both financial and physical vulnerabilities. Despite potential future economic improvements,

many South Africans remain burdened with debt, and as soon as they begin earning, they face repayment obligations without savings or substantial investments, making life after retirement particularly challenging. However, the most effective protection against income loss is avoiding debt and maintaining an emergency fund, which can only be achieved through consistent saving. [Mehry et al. \(2021\)](#) assert that a high unemployment rate is typically linked to lower financial inclusion, which in turn results in lower financial literacy. Financial literacy is a critical foundation for financial inclusion, playing an essential role in fostering financial development and stability ([Ramachandran, 2012](#)).

South Africa's low savings rate and limited economic growth can be attributed to low financial literacy and high levels of over-indebtedness ([bank, 2019](#)). The level of individual savings and investments remains alarmingly low, which is particularly concerning since individuals contribute a larger share to national savings than the corporate and government sectors ([Kapounek et al., 2016](#)). National savings are crucial for sustaining economic development by channelling available resources into capital for developmental projects ([Aidoo-Mensah, 2018](#)). Poor savings rates result in lower investment, which ultimately hinders economic growth. Moreover, low wages and salaries, combined with sluggish economic growth, contribute to further dissaving, exacerbating an already challenging situation. [Lawlor \(2018\)](#) argues that the causes of South Africa's poor savings levels are deep and multifaceted. However, [Lawlor \(2018\)](#) and [Lusardi and Mitchell \(2007\)](#) suggest that financial literacy may be a primary factor behind the nation's weak savings culture, which may, in turn, contribute to the country's ongoing low economic growth.

To make informed and effective financial and economic decisions, it is essential to possess financial literacy skills ([Kurihara, 2013](#)). Individuals with a strong understanding of financial principles are better equipped to manage their finances efficiently. Research by ([Henager & Cude, 2016](#); [Herawati, 2015](#)), and [Agustina \(2016\)](#) demonstrates that financial literacy has a positive impact on financial behaviour, as financially literate individuals are more adept and confident in applying their knowledge to make informed and beneficial financial decisions. According to [Chu et al. \(2017\)](#) and [Ali et al. \(2015\)](#), financial literacy plays a pivotal role in shaping financial behaviour, influencing areas such as consumer spending, saving patterns, and overall financial decision-making.

Based on the literature, three hypotheses have been developed for this study. The following section outlines the relationships between financial literacy challenges, financial literacy skills, financial technology, and financial behaviour. The financial literacy challenges, which were comprehensively discussed earlier in the literature review, include issues such as inadequate education, over-indebtedness, high unemployment, low savings, and slow economic growth. The first hypothesis is as

follows:

H1: *Financial literacy challenges negatively impact financial behaviour.*

Research has established a connection between financial literacy and financial behaviour. According to [Chu et al. \(2017\)](#), households with higher financial literacy are more proficient in planning and managing their finances. Enhanced financial literacy is also linked to the adoption of positive financial practices, such as timely payments, effective expense management, budgeting, investment diversification, and setting long-term financial goals ([Chu et al., 2017](#)). [Robb and Woodyard \(2011\)](#) highlight that financial literacy significantly influences an individual's financial behaviour, particularly in terms of financial planning and allocation. [Monticone \(2010\)](#) similarly asserts that financial literacy and behaviour are positively correlated, with financial literacy shaping financial behaviour and vice versa. [Lusardi and Mitchell \(2014\)](#) also argue that poor financial literacy has detrimental effects on financial behaviour, with individuals lacking sufficient knowledge often missing out on financial opportunities. However, [Lusardi and Mitchell \(2014\)](#) note the challenge of establishing a clear causal relationship between the two. [Farida et al. \(2021\)](#) suggest that financial literacy does not always translate into improved financial behaviour, as the use of financial technology may be more influential in shaping both financial literacy and behaviour. This implies that while financial literacy can be acquired, its practical application may remain limited. The second hypothesis is thus as follows,

H2: *Higher levels of financial literacy are positively correlated with improved financial behaviour.*

Financial behaviour is influenced by a variety of factors, one of which is the use of financial technology ([Younas et al., 2019](#)). The convenience of conducting financial transactions and processes online, which saves time and enhances efficiency, is tempered by the risks of cybercrime and detrimental spending behaviour associated with such activities ([Younas et al., 2019](#)). The increasing range of financial technology products has further complicated the financial behaviour of South Africans ([Atkinson, 2012](#)). [Younas et al. \(2019\)](#) argue that the widespread availability of financial technology diminishes individuals' ability to make sound financial decisions, negatively impacting their financial behaviour.

Technological innovations have played a pivotal role in the growth and development of the financial services sector ([Merry, 2018](#)). Over the past decade, households have utilised various technologies, such as electronic banking and automated advisers, to improve their financial well-being ([Merry, 2018](#)). However, with the proliferation of financial products, the financial landscape has become increasingly complex. Electronic banking services offered by banks and financial institutions, such as automated teller machines (ATMs), credit cards, direct deposits, pre-authorised debits, phone banking,

and online banking, have become commonplace (Merry, 2018). A report on consumer mobile banking reveals that nearly three-quarters of households in the USA own smartphones (Center., 2021), and 50% of users had engaged in mobile banking in the past 12 months (Merry, 2018). Electronic banking technologies have led to more efficient distribution channels, reducing transaction costs, service times, and expanding consumer access to credit (Jagtiani & Lemieux, 2018). In South Africa, approximately one-third of the population, or around 22 million people, use smartphones (Statista, 2020). Additionally, over 50% of South Africans, approximately 38.13 million people, actively use internet services (Statista, 2021).

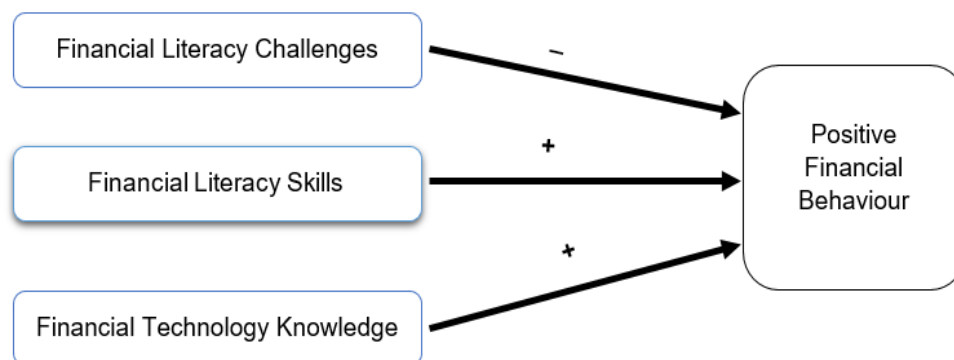


Figure 1: The Conceptual Framework of the Study

The relationship between financial technology and financial behaviour can be categorised into two main areas: technology that facilitates transactions and technology that aids in financial planning (Farida et al., 2021). The primary focus of advancements in financial technology has been on enhancing the ease of use and convenience of online banking services at lower costs (Bi, 2015). The advent of ATMs and credit cards has enabled bank customers to access their banking services almost anywhere in the world. However, this increased accessibility to funds can negatively influence household financial behaviour, as the convenience of spending more readily may lead to decreased savings for the future (Bi, 2015). Additionally, the excessive use of credit cards can result in high-interest charges, further depleting household savings potential (Bi, 2015). On the other hand, financial technology can also promote positive financial behaviour. For example, customers can use pre-authorised debit orders for the automatic payment of loans and bills, thereby encouraging timely payments. This function can also be utilised to set up automatic transfers into savings and/or investment accounts, fostering better financial management. Based on these insights, the third hypothesis is as follows,

H3: *Greater knowledge of financial technology is positively associated with improved financial behaviour.*

The three hypotheses outlined above form the basis of the conceptual framework, which will be elaborated upon in the following section.

The conceptual framework presented in [Figure 1](#) illustrates the interrelationships between financial literacy challenges, financial literacy skills, and financial technology knowledge. The framework posits that financial literacy challenges are likely to negatively influence financial behaviour, with individuals facing these challenges being less inclined to engage in positive financial practices. In contrast, individuals with strong financial literacy skills are expected to demonstrate improved financial behaviour, as these skills empower them to make informed and prudent financial decisions. Additionally, the framework suggests a positive relationship between financial technology knowledge and financial behaviour. Individuals well-versed in financial technology are more likely to utilise financial tools—such as automated payments, fixed deposits, restricted savings accounts, and financial calculators—to facilitate sound financial decision-making and exhibit responsible financial behaviour. A summary of the hypotheses is presented in [Table 1](#).

Table 1: Summary of Hypotheses

Description	Hypothesis
Financial literacy difficulties adversely affect financial behaviour.	H1: Difficulties in financial literacy have a detrimental effect on financial behaviour.
Increased financial literacy is associated with better financial behaviour.	H2: Higher financial literacy is linked to enhanced financial behaviour.
More extensive understanding of financial technology correlates with improved financial behaviour.	H3: A greater understanding of financial technology is related to more effective financial behaviour.

METHODOLOGY

This study employed a descriptive research design with a quantitative approach. The primary research instrument was a questionnaire, administered to a target population of 793 high school teachers from 32 high schools in the Greater Edendale area, a peri-urban settlement within the Msunduzi Municipality. The questionnaire utilised a Likert scale ranging from strongly disagree [1] to strongly agree [5]. Systematic random sampling was applied to select participants, ensuring an unbiased sample, resulting in a final sample size of 246 participants. To assess the reliability of the questionnaire, particularly the section measuring financial technology knowledge, Cronbach's alpha was calculated, yielding a value of 0.765. According to Taber (2018), a Cronbach's alpha value above 0.7 indicates good internal consistency, suggesting that the research instrument demonstrated an acceptable level of reliability.

This study utilised a quantitative research approach to examine the relationship between financial literacy, financial technology, and financial behaviour among high school teachers in KZN, South Africa. A descriptive survey design was employed to gather numerical data, which was subsequently analysed statistically to test the proposed

hypotheses. The target population consisted of high school teachers from the Msunduzi Municipality in KZN. A total of 246 teachers participated in the study, representing a diverse sample from various high schools within the municipality, thus ensuring a broad representation of different educational settings and financial challenges. The research instrument used in this study was a self-administered questionnaire designed to measure financial literacy, financial technology knowledge, and financial behaviour. The questionnaire was developed through an extensive review of existing literature and validated scales, with the items adapted and tailored to suit the specific context of high school teachers in South Africa.

FINDINGS

Descriptive Statistics

Table 2 presents the socio-demographic characteristics of the 246 high school teachers from KZN who participated in this study. Of the participants, 50.4% were male and 49.6% were female.

Table 2: Socio-Demographic Characteristics of Survey Respondents (%)

		N	%
Gender	Female	122	49.6
	Male	124	50.4
Age Category	Under 25 Years	25	10.2
	25 - 34 Years	89	36.2
	35 - 44	66	26.8
	45 - 54 Years	56	22.8
	55 Years and Older	10	4.0
Qualification Type	Diploma	12	4.9
	Bachelor	142	57.7
	Honours	66	26.8
	Masters	17	6.9
	PhD	8	3.3
	Other	1	0.4
Teaching Experience	< 5 Years	58	23.6
	5 - 10 Years	76	30.9
	11 - 15 Years	59	24
	16 - 20 Years	31	12.6
	21 - 30 Years	19	7.7
	31 Years and More	3	1.2
Financial Literacy Course Attended	No	76	30.9
	Yes	170	69.1
Field Employed	Science	67	27.2
	Commerce	85	34.6
	Humanities	67	27.2
	Other	27	11

The largest age group was 25 to 34 years, comprising 36.2% of the sample, followed by 26.8% in the 35 to 44 age group, and 22.8% in the 45 to 54 age group. A smaller proportion, 10.2%, were under 25 years old, while the remaining 4.1% were aged 55 or older. In terms of educational qualifications, nearly 60% of participants held a bachelor's degree, followed by 26.8% who had completed an Honours degree. A smaller percentage, 6.9%, held a master's degree, 4.9% held a Diploma, 3.3% had a PhD, and 0.4% reported having another level of education. Regarding teaching experience, the majority (30.9%) had taught for 5 to 10 years, followed by 24.0% with 11 to 15 years of teaching experience. Additionally, 23.6% had taught for less than 5 years, 12.6% had taught for 16 to 20 years, 7.7% had taught for 21 to 30 years, and 1.2% had more than 30 years of teaching experience. Approximately 70% of the participants reported having undertaken a course in financial literacy. Most of the participants (34.6%) were educators in commercial studies, followed by 27.2% from the humanities and science fields, with 11.0% from other fields of study.

There were minor differences in the contributions of financial literacy and financial technology to financial behaviour (Figures 2 and 3). In Figure 1, the positive response percentages for financial literacy and its impact on financial behaviour were 15.9% for "strongly agree" and 49.4% for "agree." Conversely, the positive response percentages for financial technology and its influence on financial behaviour were 16.6% for "strongly agree" and 53.6% for "agree." These findings indicate a subtle influence of both components on financial behaviour.

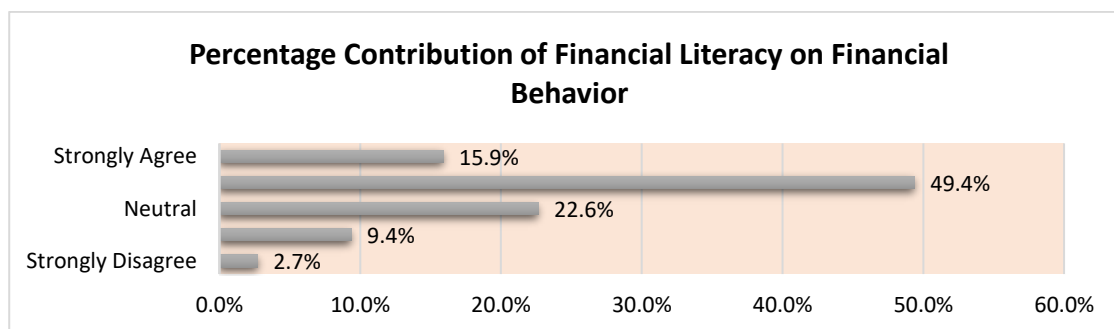


Figure 2: Percentage Contribution of Financial Literacy on Financial Behaviour

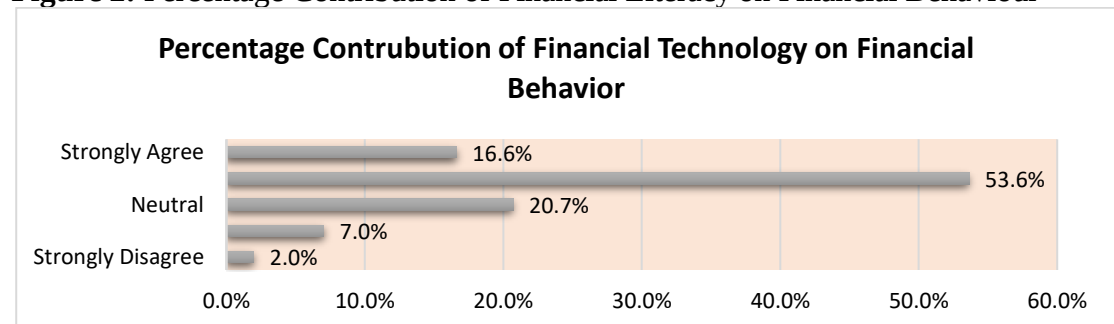


Figure 3: Percentage Contribution of Financial Technology on Financial Behaviour

Figures 3 and 4 further suggest a positive relationship between financial technology and financial behaviour, whereas the relationship between financial literacy and financial behaviour appears to be negative. Specifically, as the levels of financial technology increase from "strongly disagree" to "strongly agree" (1 to 5), financial behaviour also increases from 1 to 5. In contrast, financial behaviour declines as financial literacy levels rise from 1 to 5. The results presented in Figures 2 to 4 can be further examined and validated through the application of regression models.

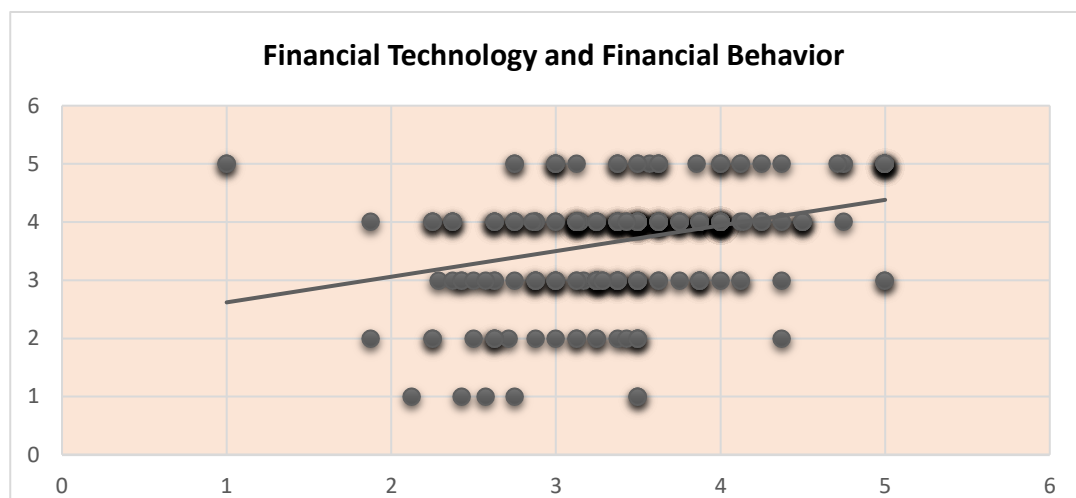


Figure 4: The Relationship between Financial Technology and Financial Behaviour

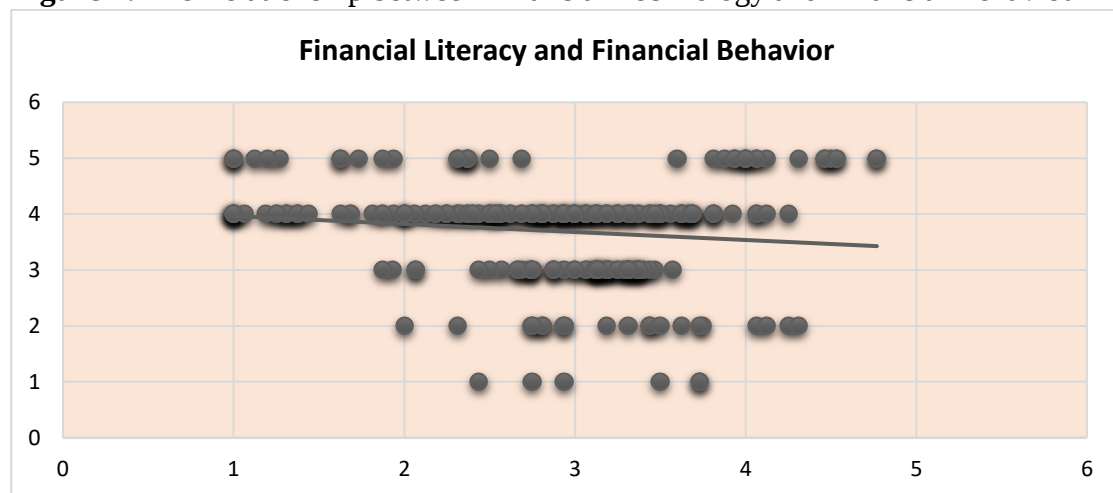


Figure 5: The Relationship between Financial Literacy and Financial Behaviour

Figure 6 presents the percentage contributions of each rating response for all financial literacy skills questions (C23 – C44). The data clearly indicate that "agree" was the most frequently selected response compared to the other options. Question C33, which asked if respondents always ensured they understood the consequences of loan default, received approximately 70% positive responses (Agree and Strongly Agree),

highlighting that most high school teachers in the Msunduzi municipality, KZN, demonstrated strong skills in loan-related matters. In contrast, Question C25, which addressed budgeting practices, received the lowest percentage of positive responses (approximately 45%). This suggests that, while many teachers had a solid understanding of loan-related issues, they were comparatively less skilled in adhering to budgets and seeking advice before making significant financial decisions.

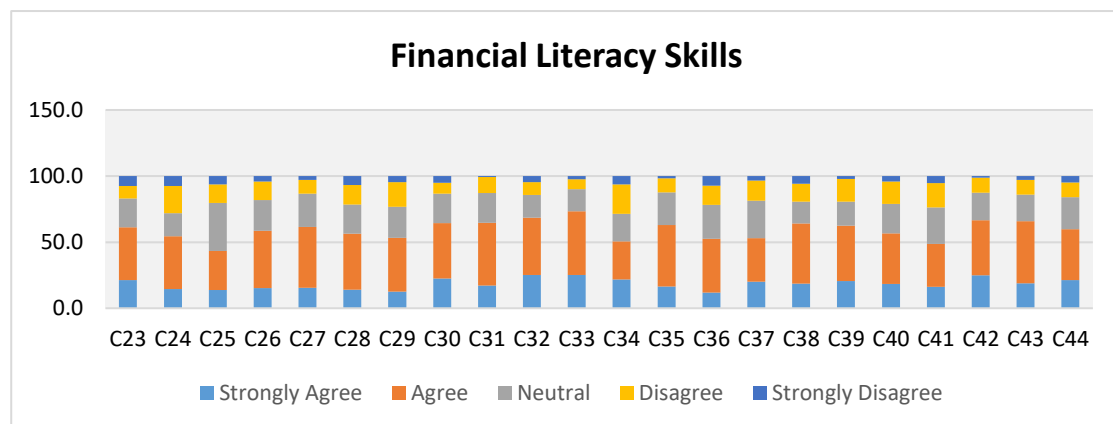


Figure 6: The Graph of Financial Literacy Skills Showing Percentage Contributions in Each Question

Figure 7 clearly indicates that most high school teachers in Msunduzi (>70%) strongly agreed that the school syllabus needs to be updated to incorporate financial technology requirements (D49). Additionally, a significant proportion of teachers reported using smartphones for cash transfers (D47), while approximately 60% expressed having knowledge of financial technology (D48). Furthermore, a similar percentage indicated that they frequently use smartphones or laptops to pay bills (D47). These findings suggest a strong awareness and utilisation of financial technology tools among the teachers in the Msunduzi municipality.

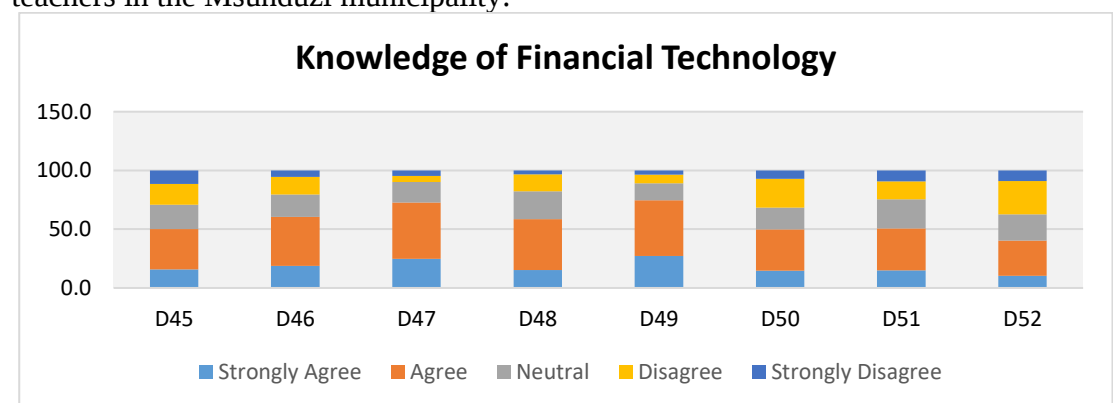


Figure 7: The Graph of Knowledge of Financial Technology Showing Percentage Contributions in Each Question

Test for Normality

Prior to conducting the normality test, the study first calculated the average scores for financial literacy, financial behaviour, and financial technology, which correspond to sections A, B, and C of the questionnaire, respectively. The Kolmogorov-Smirnov and Shapiro-Wilk tests for normality were employed, with the null hypothesis of normality being rejected when the p-value is less than or equal to 0.05. If the data fails the normality test, it can be concluded with 95% confidence that the data does not follow a normal distribution. Conversely, if the data passes the test, it suggests there is no significant deviation from normality. The p-values (Sig.) presented in Table 3 indicate that the financial behaviour data follows a normal distribution (p-value = 0.200), whereas the financial technology and literacy data do not (p-values = 0.001 and 0.002, respectively). Given that financial behaviour is the dependent variable and follows a normal distribution, we will proceed with fitting the data using multiple linear regression. According to Table 3, Kolmogorov-Smirnov and Shapiro-Wilk tests were used to assess the normality of the data. Variable distributions are tested to determine whether they differ significantly from normal distributions. Kolmogorov-Smirnov's test on financial behaviour produced a statistic of 0.048 (p = 0.200), while Shapiro-Wilk's test produced a statistic of 0.995 (p = 0.689). Based on its p-values, financial behaviour data can be considered normally distributed since both tests exceed 0.05. On the other hand, financial technology results indicate significant deviations from normality. As a result of the Kolmogorov-Smirnov test, a statistic of 0.079 was calculated (p = 0.001), while the Shapiro-Wilk test even revealed a statistic of 0.978 (p = 0.001). As both tests have p-values below 0.05, it is likely that financial technology data do not follow a normal distribution. In the same manner, the Kolmogorov-Smirnov test produced a statistic of 0.076 (p = 0.002), while the Shapiro-Wilk test produced a statistic of 0.976 (p = 0.000). P-values that exceed 0.05 confirm that financial literacy data are deviating from normality as well. The results of these tests indicate that, while financial behaviour aligns with normal distribution assumptions, financial technology and financial literacy do not. This has implications for the selection of subsequent statistical analyses, which may require non-parametric methods for the latter two variables.

Table 3: The Kolmogorov-Smirnov and Shapiro-Wilk Normality Tests

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Financial Behaviour	0.048	246	.200*	0.995	246	0.689
Financial Technology	0.079	246	0.001	0.978	246	0.001
Financial Literacy	0.076	246	0.002	0.976	246	0.000

Interpretation of Parameter Estimates

The parameter estimates presented in Table 4 reveal that several factors significantly influence the financial behaviour of high school teachers in Msunduzi Municipality, Pietermaritzburg, KZN. These factors include work experience (specifically, having less than 5 years, 11–15 years, and 21–30 years of experience), completion of a financial literacy course, commerce work stream, banking methods, frequency of technology service usage, as well as financial literacy and technology knowledge (all with p-values < 0.05). Only the variables found to significantly impact financial behaviour were interpreted. The mean effects of work experience were all negative, suggesting that teachers with fewer than 5 years, 11–15 years, or 21–30 years of experience, relative to those with more than 30 years of experience, are expected to show a decline in financial behaviour. Specifically, the decrease in financial behaviour would be by a factor of 0.841, 0.806, and 0.818, respectively, moving from a "strongly agree" to "strongly disagree" stance on financial behaviour.

In contrast, the mean effect of having completed a financial literacy course was positive (0.315), indicating that teachers who have taken the course are expected to exhibit better financial behaviour compared to those who have not. Teachers from the humanities work stream, compared to those from other work streams (e.g., science), were expected to show an increase in financial behaviour by a factor of 0.220, progressing from "strongly disagree" to "strongly agree" on financial behaviour. The mean effects of banking methods, including branch, internet, and ATM banking, were negative, suggesting that as teachers find these methods more convenient, their financial behaviour would decrease by factors of 0.417, 0.477, and 0.523, respectively, from "strongly agree" to "strongly disagree." Similarly, the frequency of using financial technology services, either "sometimes" or "very often," was also negatively associated with financial behaviour, with respective decreases of 0.201 and 0.224, moving from "strongly agree" to "strongly disagree". Finally, as financial literacy levels increased from "strongly disagree" to "strongly agree," financial behaviour was expected to decrease by a factor of 0.175. In contrast, increasing levels of financial technology knowledge were expected to result in an increase in financial behaviour by a factor of 0.381, moving from "strongly disagree" to "strongly agree".

Using the multiple linear regression method, Table 4 shows the relationship between various predictor variables and the dependent variable. Statistical relevance and impact of each parameter are determined based on its B coefficient, standard error, and significance value (Sig). The table also includes Wald Chi-Square results and 95% confidence intervals for each estimate to assess their precision. There is a significant correlation between financial literacy and financial technology with p-values 0.05. Furthermore, categorical variables, such as work experience and frequency of service use, are found to be significant, indicating the complicated relationships between

financial literacy and financial technology. The model suggests that non-significant predictors such as gender and some types of qualifications have no significant impact. Based on demographic, experiential, and behavioural influences on financial behaviour, the table provides detailed insight into how each factor contributes to financial behaviour. Having this insight is crucial to understanding the drivers of financial behaviour in the population under study.

Table 4: Parameter Estimates from a Multiple Linear Regression

Parameter Estimates							
Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test		
			Lower	Upper	Wald Chi-Square	df	Sig.
(Intercept)	3.655	0.6658	2.350	4.960	30.135	1	0.000
Gender							
Male	-0.036	0.0639	-0.162	0.089	0.325	1	0.569
Female (Ref.)	0 ^a						
Age							
Under 25 Years	-0.019	0.2276	-0.465	0.427	0.007	1	0.933
25 – 34 Years	0.012	0.1987	-0.378	0.401	0.004	1	0.952
35 – 44 Years	-0.045	0.1895	-0.416	0.327	0.055	1	0.814
45 – 54 Years	0.224	0.1732	-0.116	0.563	1.669	1	0.196
55 Years and Older (Ref.)	0 ^a						
Qualification Type							
Diploma	0.168	0.5156	-0.843	1.178	0.106	1	0.745
Bachelor's Degree	0.079	0.5094	-0.920	1.077	0.024	1	0.877
Honour's Degree	0.087	0.5092	-0.911	1.085	0.029	1	0.865
Master's Degree	0.135	0.5206	-0.885	1.156	0.068	1	0.795
PhD	-0.188	0.5397	-1.246	0.870	0.122	1	0.727
Other (Ref.)	0 ^a						
Work Experience							
Less than 5 Years	-0.841	0.3481	-1.523	-0.158	5.834	1	0.016
5 – 10 Years	-0.650	0.3404	-1.317	0.018	3.641	1	0.056
11 – 15 Years	-0.806	0.3403	-1.472	-0.139	5.605	1	0.018
16 – 20 Years	-0.642	0.3398	-1.308	0.024	3.573	1	0.059
21 – 30 Years	-0.818	0.3430	-1.490	-0.145	5.682	1	0.017
31 Years and More (Ref.)	0 ^a						
Financial Literacy Course							
Yes	0.315	0.0673	0.183	0.447	21.959	1	0.000
No	0 ^a						
Work Stream							
Science	0.139	0.1104	-0.077	0.355	1.584	1	0.208
Commerce	0.123	0.1122	-0.097	0.342	1.193	1	0.275
Humanities	0.220	0.1085	0.007	0.432	4.096	1	0.043
Other (Ref.)	0 ^a						
Banking Methods							

Branch	-0.417	0.2304	-0.868	0.035	3.273	1	0.070
Internet	-0.477	0.2204	-0.909	-0.045	4.675	1	0.031
ATM	-0.523	0.2190	-0.952	-0.094	5.705	1	0.017
Other	0 ^a						
Duration Of Financial Technology Services							
Not Used	-0.008	0.2535	-0.505	0.489	0.001	1	0.974
Less than 2 Years	0.072	0.0935	-0.111	0.255	0.597	1	0.440
2 – 5 Years	-0.111	0.0724	-0.253	0.031	2.345	1	0.126
More than 5 Years (Ref.)	0 ^a						
Frequency of Service							
Never	-0.086	0.2285	-0.534	0.362	0.140	1	0.708
Rarely	-0.033	0.1088	-0.247	0.180	0.095	1	0.758
Sometimes	-0.201	0.0946	-0.386	-0.015	4.503	1	0.034
Very often	-0.224	0.0800	-0.381	-0.067	7.823	1	0.005
Always (Ref.)	0 ^a						
Mobile Money							
Sending Cash	0.059	0.1097	-0.156	0.274	0.290	1	0.590
Receiving Cash	-0.205	0.1128	-0.426	0.016	3.315	1	0.069
Purchases at Retailer	-0.080	0.1192	-0.314	0.154	0.450	1	0.502
Bill Payments (Utilities)	0.064	0.1199	-0.170	0.299	0.289	1	0.591
Bank Related Service	0.024	0.1388	-0.249	0.296	0.029	1	0.865
None (Ref.)	0 ^a						
Financial Literacy	-0.175	0.0366	-0.247	-0.103	22.797	1	0.000
Financial Technology	0.381	0.0466	0.290	0.472	66.791	1	0.000

RELIABILITY AND VALIDITY STATISTICS

The reliability statistics for the Likert scale variables in sections B, C, and D are presented in [Table 1](#). The overall Cronbach's Alpha value, when all variables are included, is 0.743, which exceeds the recommended threshold of 0.7, indicating acceptable internal consistency. When examining only the variables in section D (D45–D56), a Cronbach's Alpha value of 0.677 was obtained, which is slightly below the recommended threshold. However, when only the variables D45–D52 were included, the Cronbach's Alpha value increased to 0.765, suggesting better reliability. Given that the scale for variables D53–D56 was measured differently from D45–D52, we decided not to exclude any variables but instead treated D53–D56 as categorical variables in the regression analysis, as consistency was confirmed for the overall dataset. In addition to the reliability tests, the data was assessed for validity through Pearson's correlation analysis. All components (sections B–D) were found to be valid, as all Pearson's correlations were significant at the 5% level of significance. Therefore, the data is considered robust and can be further explored for additional analysis.

Table 5: Reliability Statistics

Section	Cronbach's Alpha	No. of Items
B	0.921	16
C	0.899	22
D	0.765	8

According to Table 5, the Likert-scale items in sections B, C, and D were reliable, confirming the robustness of the study's findings. Among the three sections, Section B achieved an Alpha of 0.921, showing excellent reliability, Section C had an Alpha of 0.899, indicating high reliability, and Section D had an Alpha of 0.765, indicating adequate reliability. As a whole, Cronbach's Alpha for all sections was 0.743, exceeding the recommended threshold of 0.7, proving that the dataset is consistent, and the results are reliable. As a result of improvements in section D, reliability for items D45–D52 has increased to 0.765, and items D53–D56 have been treated as categorical variables to address scale differences. A Pearson correlation analysis was also used to validate the data, which showed that all components showed a significant difference at the 5% level. As a result of these findings, the study garnered important attention and validated the accuracy and reliability of the findings, making them useful for further research and analysis.

SUMMARY OF RESULTS AND DISCUSSION

The study found that the majority of teachers in Msunduzi Municipality, KZN, possessed strong financial literacy skills. These skills were reflected in their ability to manage debts effectively, ensuring timely bill payments, monitoring and planning their income and expenses, and practising due diligence when making financial decisions, such as thoroughly understanding the terms and conditions associated with loan applications. Additionally, the study revealed no significant differences in the financial literacy skills between male and female high school teachers in the Msunduzi Municipality. Most of the teachers displayed a strong understanding of financial technology, as evidenced by their ability to use financial services such as online purchases and transactions through smartphones or laptops. Additionally, they identified internet banking as the most convenient banking method. However, the study also highlighted concerns about the risks associated with financial technology, particularly the vulnerability of internet banking users to fraud and scams, which was a significant source of worry for many teachers. The study also revealed that the teachers expressed concerns about the security risks associated with internet banking. To mitigate these risks, it is recommended that teachers stay informed about the latest fraud tactics and scams used by criminals. By doing so, they will be better equipped to recognise suspicious activities that could jeopardise their internet banking security. Furthermore, banks regularly update their clients about emerging fraudulent methods,

and it is advisable for teachers to read these banking crime reports. This will help them safeguard their hard-earned money and protect themselves from potential threats.

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