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Significance of Financial Literacy on Personal Savings Behaviour: A study of the City of Tshwane and Mahikeng Municipality Employees

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Abstract

The objective of this study was to identify the level of financial literacy among South African households and statistically ascertain the impact of financial literacy variables on household savings behaviour. Quantitative research was conducted to achieve these objectives, where data was collected from the employees of City of Tshwane and Mahikeng Municipality. A cluster analysis was employed to identify the group cluster of respondents. In addition, a Path Coefficient analysis was conducted to identify the significance of financial literacy on household savings behaviour. The study's findings revealed that the respondents have a reasonable level of financial literacy, which is in line with the conceptual findings of previous literatures. Secondly, it was ascertained that variables under financial control, financial planning, financial knowledge, and understanding positively impact household savings behaviour. Meaning that the more they are familiar with these variables, the more they are likely to save. On the contrary, the variables under the construct of knowledge of financial products and services were identified to impact household savings behaviour negatively, meaning that the more they are knowledgeable on financial products and services, the lesser they are likely to save. Hence, it was concluded that stakeholders and policymakers in charge of financial and savings literacy in South Africa should incorporate these identified positive variables of financial literacy into their savings campaign programmes.

Keywords: *Financial Literacy, Personal Savings Behaviour, Employees, Savings Literacy*

JEL Classification: G530; D14; G510

1.1 Introduction

As a result of the current financial wellbeing problems facing households, they are increasingly engrossed in the web of confusion over practical steps to cope with economic issues for future financial wellbeing. Therefore, financial literacy has been shown to substantially impact household financial preparation and management that specifically influences household saving behaviour (Petrie *et al.*, 2018; Lusardi *et al.*, 2017; Refera *et al.*, 2016; Klapper *et al.,* 2015). However, multiple surveys support evidence that a significant proportion of the adult population knows nothing about financial jargon and core financial principles, such as diversification of risks, inflation, and compounding of interest (Ameer & Khan, 2020; Klapper & Lusardi, 2020). Indeed, this research supports the claim that the financial literacy variables that promote the actions of individual savings are a paradigm of an endogenous choice of variables analogous to the accumulation of human capital and economic development. Therefore, the purpose of this study was to statistically evaluate the significance of financial literacy on the behaviour of personal savings, which could help to incorporate and reconcile the most complexities concerning South Africa's steady decline in household savings rates.

1.2 Motivation and Objectives of the Study

Just a few days after payday, being 'broke' by most working-class South Africans has become a phenomenon that requires critical analysis to determine its true roots (Mbukanma, Rena & Musvoto, 2020). Financial literacy has received numerous recommendations on its importance towards enhancing personal financial management by previous scholars. Accordingly, sound financial management by households informs positive savings behaviour, contributing to national economic growth (Lusardi *et al.*, 2017; Refera *et al.*, 2016; Klapper *et al.*, 2015; Lusardi & Mitchell, 2014). Ironically, the personal savings rate in South Africa has been on a continuous decrease (Cole *et al.,* 2021; Precious & Asrat 2014; Mahlo, 2011). Perhaps, the question is South African households not financially literates? Consequently, it becomes imperative to ascertain the level of financial literacy and its significance on the savings behaviours of South African households. Hence, the objectives of this study were to ascertain the level of financial literacy among South African households and identify the significance of financial literacy variables on a household's savings behaviour.

2.1 Empirical Literature Review

The importance of financial literacy education cannot be overstated, since it provides families with the information, they need to make sound financial choices. According to Peter (2015), definitions of financial literacy have been generally overly narrow. He contended that the individual bears the responsibility for financial integrity, and that the roles of banks and governments are frequently overlooked. Nonetheless, a lack of financial literacy is a widespread phenomenon on a global scale, and it is apparent in advanced economies (Boisclair *et al.*, 2017; Isomidinova & Singh, 2017; Lusardi & Mitchell, 2005). According to Jappelli and Padula (2013), financial illiteracy is linked with poor savings and wealth creation. Individuals who want to improve and move toward financial independence must thus enhance their financial literacy in various aspects of personal financial planning that correspond to the financial knowledge they need. Individuals' degree of financial education, to that aim, offers a solid basis for such growth (Enwereji, Mbukanma & Chukwuere, 2017; Jappelli & Padula, 2013).

Financial literacy promotion is an intervention and an obvious reaction to the increasing complexity of economic decision-making. There are many difficulties in the economic environment, and there is a clear need to address this issue for national economic development. Financial experts often warn that individuals are not saving enough for retirement, and it has become typical for consumers to mismanage their finances, underinvest, and overspend (Petrie *et al.*, 2018; Lusardi *et al.*, 2017; Refera *et al.*, 2016). Several empirical results, according to Lusardi and Mitchell (2014), support the argument that financial literacy influences demand for effective financial goods and services, as well as other educated financial choices such as saves. Low levels of financial literacy are common among adults and growing young kids all over the globe; they are strongly linked to disadvantaged groups and bad financial decisions, which may lead to economic instability (Hütten *et al.*, 2018; Idris *et al.*, 2017; Lusardi & Mitchell, 2014). As a result, increased financial literacy may assist individuals in better understanding, saving more, achieving better economic position, and having more economic security. As a result, the impact of financial education on family savings becomes an urgent problem that must be addressed.

In an ironic twist, how financial service companies offer their goods and services may be a barrier to saving for financially ignorant people. Indeed, financial providers often employ jargon, which may need a juridical interpretation, adding to the complexity of customer information (Gathergood & Weber, 2017; Gerrans & Hershey, 2017). As a result, goods may seem more complex to financially illiterate people, causing them to overlook important product characteristics such as costs and dangers (Lewis & Messy, 2012). As a result, such people are confronted with information that they do not comprehend, discouraging them from purchasing potentially beneficial goods. People who are financially literate, on the other hand, are more inclined to investigate the goods and services provided by financial institutions for their advantage (Lusardi *et al.*, 2017).

There are many negative consequences of financial illiteracy that may be enumerated at the global, national, and organizational levels, and the majority of these problems are experienced by people and are not limited to any level (Muralidhar, 2017; Van Nieuwenhuyzen, 2009). As a result, the consequences of not having the required abilities to make good financial choices become severe, particularly during times of economic insecurity, when resources may be more restricted and unfavourable financial occurrences, such as job losses and rapid income reductions, are more common (Klapper & Singer, 2018). Managing everyday financial transactions becomes increasingly difficult as the dangers of doing it wrong increase (Roberts *et al.*, 2012). However, the global financial crisis of 2007/2008 showed a lack of financial literacy at the worldwide level, exposing the lack of financial preparation and abilities of most families on a global scale. Such a scenario piques the government's and non-governmental organizations' attention in the costs of financial illiteracy and its consequences (Lusardi & Mitchell, 2014).

Nonetheless, financial literacy is critical in understanding many economic and financial behaviours such as retirement planning and saves, having greater savings, investing in stocks and engaging in financial markets, financial management abilities, and having rainy day reserves (Bianchi, 2018; Tharayil, 2015). A lack of financial literacy has been linked to expensive borrowing and credit card abuse, as well as having higher mortgage payments (Gathergood & Weber, 2017; Snyman, 2014). As a result, all stakeholders must support financial literacy education and research, as it has been experimentally and theoretically shown to be an important skill for family financial well-being planning.

2.2 Economic Importance of Financial Literacy to Households

As much as every individual requires financial literacy, the breadwinners of each family require it more because they face an even more complicated financial world and suffer from a lack of time to correct financial misallocation because some of them are overburdened with various family responsibilities. Lyons and Neelakantan (2008) highlight a disconnect between the theory behind how people should act and how they behave financially. As a result, the aim of financial education is to increase people' financial literacy. In general, economic changes and financial goods and services in South Africa, such as the rate of inflation, variable interest rates, loans, credit facilities, savings, and pension plans, have heightened people' awareness of the need of financial literacy (Wingfield, 2016). Thus, South Africa's low savings rate is labelled as negative news, resulting in a poor scenario for a nation that wants to restore its economic development. The issue that has arisen as a result of these advancements is that such products that seek to assist and aid people in their financial well-being have proven to be too complicated for financial illiterate persons to utilize effectively (Engelbrecht, 2014; Lusardi & Mitchell, 2014).

Reducing poverty, on the other hand, focuses on fulfilling fundamental household requirements such as food and medical care, long-term economic growth, and prudent financial choices knowledge - based and access to financial goods and services (Nanziri, 2016). As a result, financial literacy has been identified as an essential ability for people operating in an increasingly complicated financial world (Potrich *et al.*, 2015). Despite its importance, numerous studies across the globe show that a large portion of the world's population still suffers from financial illiteracy, indicating that an urgent solution to the issue is required (Mbukanma & Rena, 2018; WorldBank, 2014; Brown & Graf, 2013; Lusardi & Mitchell, 2011).

Consumers who do not grasp the idea of financial literacy will have more significant debts, consume more, and pay greater interest rates on loans (Lusardi & Tufano 2015; Lusardi & De BassaScheresberg, 2013). Because of their high rate of borrowing, most people end up conserving less money (Stango & Zinman, 2009). Indeed, individuals with strong financial understanding do better in terms of financial planning and retirement savings (Lusardi & Mitchell, 2014; Behrman *et al.*, 2012). Financial education programs have increased in quantity and significance in response to this lack of financial literacy and the compelling evidence of their beneficial effect on society (Mbukanma, 2019; Tharayil, 2015). As a result, the economic value of financial literacy is contextualized as follows:

- **Financial Knowledge**: Financial literacy teaches people how to comprehend financial information and ideas and how to use that knowledge to make good financial decisions.
- **Money Management**: Financial literacy improves an individual's day-to-day money management. A financially educated family, according to Roberts *et al.* (2016), would always establish a budget to track their monetary activities throughout a particular time period.
- **Financial Intelligence**: The intelligence construct relates to an individual's capacity to use their brains, think, and be attentive to financial ideas and actions. As a result, financial literacy improves intellectual understanding.
- **Financial Consciousness**: Financial literacy raises people's knowledge of financial issues, allowing them to evaluate the financial consequences of their choices.
- **Financial Product Selection**: The capacity of individuals to choose the appropriate financial products is an important element of financial decision-making guided by financial literacy. Because modern financial product marketplaces are increasingly complicated, Van Rooij *et al.* (2012) predict that an improvement in financial literacy would boost stock market participation and retirement planning.

- **Financial Attitudes toward Savings and Investments**: Differences in behavioural biases and external factors may impact the choice to save and how much to save (Mbukanma & Rena, 2018). However, owing to financial illiteracy, some people seek quick satisfaction (i.e. instant consumption). Financial literacy, on the other hand, offers a healthy financial mindset for families to decide on savings and investment.
- **Improved Personal Economic Decision-Making**: Financial literacy is accompanied by comprehensive knowledge that improves positive economic decision-making. Previous research, such as that of Lusardi and Mitchell (2014), has shown a link between financial literacy and informed economic choices made by families.

3.1 Research Methodology and Data Analysis

A quantitative method was employed, as it enhances the analysis and understanding of numerical data. Accordingly, a survey method was carried out in the study through a self-administered questionnaire. Therefore, the purposive sampling method was used to select the two municipalities sampled for the participants, comprised of the City of Tshwane and Mafikeng municipality employees. Thus, a sample size of #627 was drawn from both City of Tshwane and Mafikeng municipality using the sample size determination formula by Krejcie and Morgan (1970) from the targeted population consisting of 29,574 employees for the City of Tshwane and 695 employees for Mahikeng municipality. Thus, Cluster Analysis and Path Coefficients Analysis method were employed using SPSS version 25 and Microsoft Excel application software to analyze the quantitative data collected from the participants. Accordingly, 428 duly completed questionnaire was returned from a sample size of 627. The demographic section of the questionnaire was coded with A construct, while the independent variables, financial control, financial planning, financial products, and financial knowledge was coded B, C, D, and E constructs, respectively. Also, variables that measure household savings behaviour (dependent variable) were coded with F construct. According to the number of participants from each municipality, 58.6 percent of participants worked for the City of Tshwane, whereas 41.4 percent worked for the Mahikeng Local Municipality.

3.2 Cluster Analysis

One of the study's research goals was to determine the degree of financial literacy among South African families by using the four financial literacy core domains (financial control, financial planning, financial product choice and financial knowledge and understanding). Thus, micro-economic variables were created under these four categories in such a way that the "agree and fully agree" choices in the questionnaire reflected positive answers that showed an appropriate degree of financial literacy understanding, as validated by prior research. As a consequence, the findings of this research are presented using cluster analysis, which was utilized to determine the group cluster of respondents (see Figure 1).

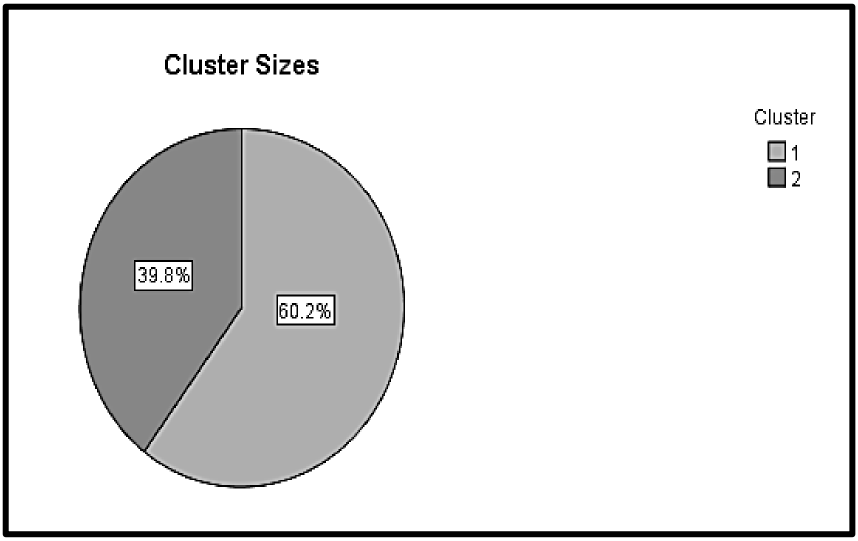

Figure 1 Group Cluster of Responses

Figure 1 indicates that the two-stage cluster analysis yielded two clusters, with the majority of respondents (60.2 percent) belonging to cluster 1 and just 39.8 percent belonging to cluster 2. As a result, respondents with "Agree" answers to the items in the chart were classified into cluster 1, whereas respondents with "Completely Agree" responses to the items in the chart were placed into cluster 2. In essence, these questions were used to assess personal financial literacy, financial planning knowledge, financial product selection knowledge, and personal knowledge and comprehension of financial concepts.

As a result, both clusters show agreement (agree to agree) and not disagree (disagree to disagree fully), which is due to a negligibly tiny proportion of respondents disagreeing (disagree to disagree totally) with these questions. Figure 2 also depicts the connection between respondents' demographic characteristics and questions evaluating their knowledge of financial control, personal knowledge of financial planning, knowledge to select financial goods, and personal knowledge and comprehension of financial ideas.

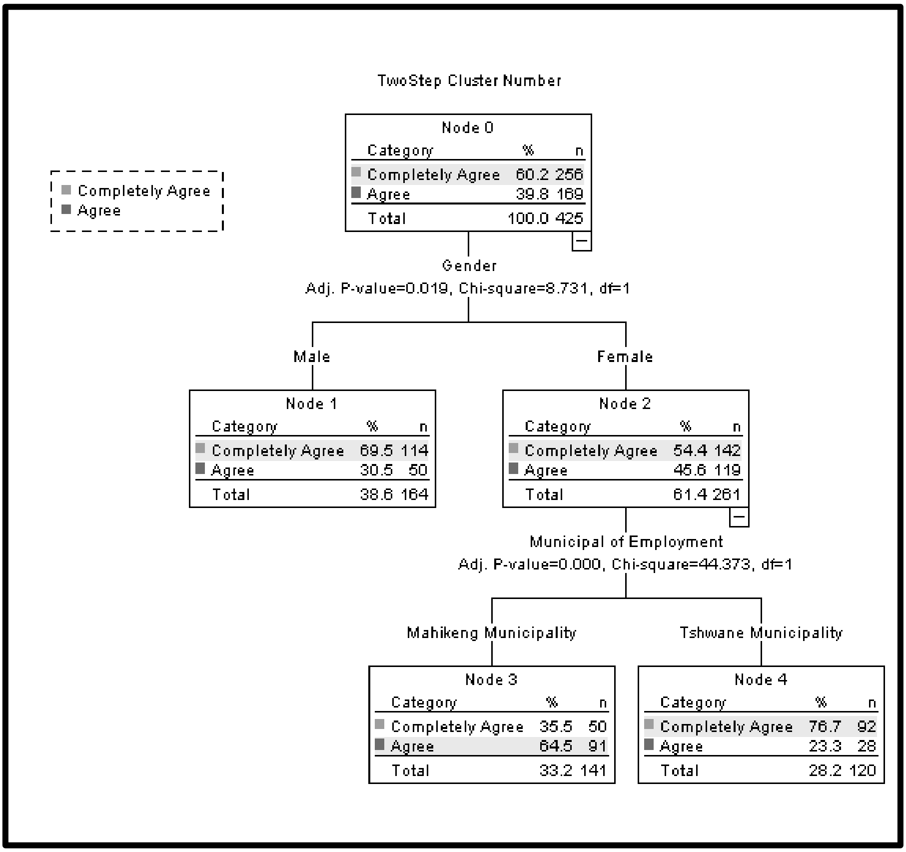

Figure 2 Relationship between Demographic Variables and Responses of Respondents

Only gender and municipality of work were substantially related with the chances of respondents belonging to either of the two clusters, as shown in Figure 2. The graph also indicates that male respondents were more likely than female respondents to fall into the "absolutely agree" cluster (69.5 percent) (54.4 percent). Furthermore, respondents from Mahikeng Local Municipality were more likely to belong to the "Agree" cluster (64.5 percent) than those from Tshwane Municipality, with 76.7 percent belonging to the "totally agree" cluster. According to the results of

Klapper *et al.*, the degree of "agree" to "totally agree" answers in the research indicates that respondents had a decent understanding of financial literacy (2015). As a result of the cluster analysis, South African households have a good knowledge of financial literacy. The questions were designed in such a way that 'agree to fully agree' responses were honest responses to an acceptable degree of financial knowledge.

3.3 Path Coefficients Analysis

Path coefficients were utilized in the structural equation modelling method to investigate the potential connection between the independent and dependent variables in determining the relevance of financial literacy factors on the household's savings behaviour. Wright (1921) utilized a descriptive-based graphical method to discover connections between variables in a multivariate system, which gave rise to the phrase route coefficients. Path coefficients, in fact, assist in determining the relative importance of variables inside the fitted model (Rani et al., 2017; Saidaiah *et al.,* 2008; Dodge, 2003). Path coefficients were therefore utilized to characterize the directional relationships among the variables used in this research. Most significantly, the correlation in this research was primarily focused on the p-value; when the p-value is (less than or equal to) 0.05, the correlation is significant, and the opposite is insignificant. As a consequence, table 1 displays the findings of variables that were omitted from the final SEM because their p-value was more than 0.05.

Table 1: Standardised results for PATH list (P-Value >0.05)

Path			Parameter	Estimate	Standard Error	t Value	Pr > |t|
B8	===>	F3	_Parm04	0.07972	0.04667	1.7084	0.0876
C4	===>	F2	_Parm07	0.05471	0.04794	1.1413	0.2537
C4	===>	F3	_Parm08	0.07347	0.04716	1.5581	0.1192
C5	===>	F3	_Parm10	0.05829	0.04661	1.2505	0.2111
C9	===>	F2	_Parm12	0.05834	0.04789	1.2183	0.2231
D1	===>	F2	_Parm14	-0.06765	0.04797	-1.4103	0.1584
D7	===>	F3	_Parm18	-0.08264	0.04735	-1.7454	0.0809
E2	===>	F4	_Parm21	0.00273	0.04719	0.0579	0.9538
E2	===>	F5	_Parm22	-0.08884	0.04768	-1.8633	0.0624
E3	===>	F1	_Parm23	0.07685	0.04800	1.6011	0.1094
E6	===>	F2	_Parm28	0.08769	0.04690	1.8698	0.0615
E6	===>	F1	_Parm17	0.09171	0.04768	1.9233	0.0500

As a result, the goal of each variable selection in a route list is to eliminate unimportant covariates that make no contribution and to find variables that offer enough information to fulfil the model's goal. The SEM path coefficients are all negligible (p-values >0.05), as seen in Table 1, and therefore were removed from the SEM. As a result, the route coefficients for the updated model are shown in Table 2.

Table 2: Standardised results for PATH list (P-Value <0.05)

Path			Parameter	Estimate	Standard Error	t Value	Pr > |t|
B6	===>	F1	_Parm01	0.12774	0.04753	2.6877	0.0072
D3	===>	F1	_Parm02	-0.11408	0.04755	-2.3990	0.0164
E6	===>	F1	_Parm03	0.09171	0.04768	1.9233	0.0500
B7	===>	F2	_Parm04	0.14304	0.04675	3.0599	0.0022
C2	===>	F2	_Parm05	0.11497	0.04694	2.4491	0.0143
C8	===>	F2	_Parm06	0.13215	0.04683	2.8221	0.0048
E2	===>	F2	_Parm07	0.10886	0.04694	2.3188	0.0204
B3	===>	F3	_Parm08	0.14848	0.04680	3.1729	0.0015
C9	===>	F3	_Parm09	0.12949	0.04702	2.7537	0.0059
D5	===>	F3	_Parm10	-0.10607	0.04630	-2.2910	0.0220
E2	===>	F3	_Parm11	0.10723	0.04643	2.3093	0.0209
E6	===>	F3	_Parm12	0.14000	0.04603	3.0414	0.0024
C2	===>	F4	_Parm13	0.15540	0.04667	3.3298	0.0009
D5	===>	F4	_Parm14	-0.11578	0.04673	-2.4774	0.0132
E5	===>	F4	_Parm15	0.09691	0.04695	2.0643	0.0390
E7	===>	F4	_Parm16	0.10728	0.04681	2.2920	0.0219
E8	===>	F4	_Parm17	0.11579	0.04675	2.4769	0.0133
E4	===>	F5	_Parm18	0.16289	0.04750	3.4292	0.0006

Table 2 shows that all of the route coefficients are significant (p-values 0.05). In essence, the standardized Path list findings indicate the Path coefficients that are utilized to demonstrate the direct impacts of the independent and dependent variables. Variables coded with B construct (financial control), C construct (financial planning), and E construct (financial knowledge and comprehension) show a positive statistical association with variables that influence household saves behaviour, respectively. This implies that if South African families understand these concepts, they are more inclined to save. On the contrary, the variable coded with the D construct (financial product selection) has a negative correlation with factors that influence household saves behaviour. That is, the more South African families understand this concept, the less likely they are to save. As a result, Figure 3 summarizes the statistical connection between financial literacy measures and variables that assess household savings behaviour (household savings determinant).

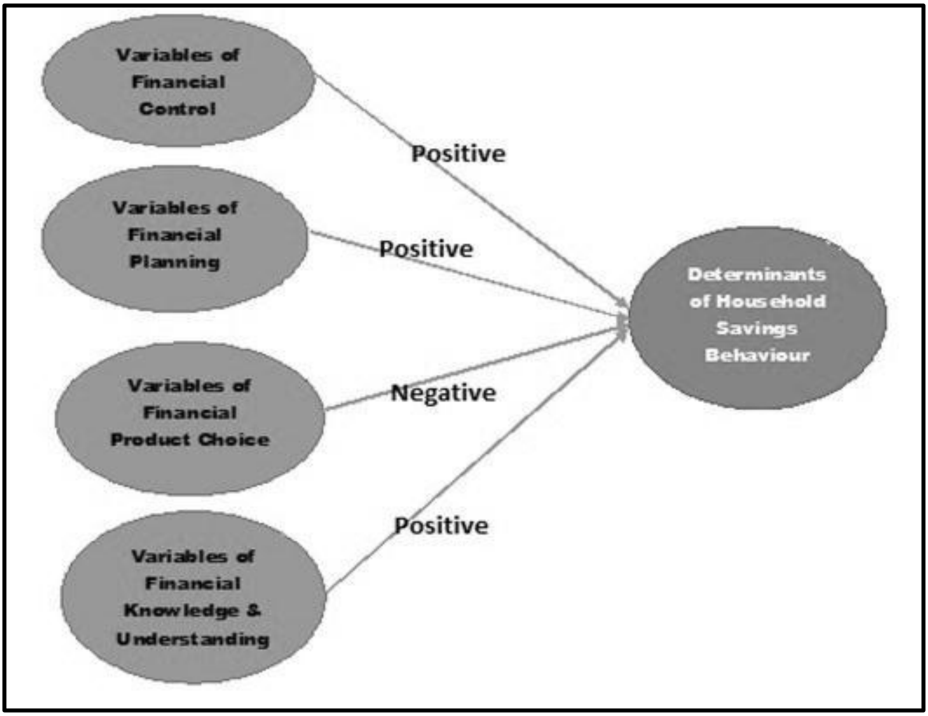

Figure 3 Statistical Relationship between Financial Literacy Variables and Variables of Household Savings Behaviour

Therefore, figure 3 shows the outcome of the Path coefficients study. Financial management, planning, and comprehending knowledge show a statistically significant positive connection with variables that assess household saves behaviour. However, it was shown that the more South Africans knew about financial product options and services, the less they save (a negative statistical relationship with household savings behaviour). As a consequence, the statistical findings of this research have experimentally shown the rationale behind the effect of financial literacy on family saves behaviour.

4.1 Key Policy Implications

Policy implications help to outline problems so that policymakers may make wise decisions. As a result, South African stakeholders involved in financial, and savings literacy should consider the following recommendations:

a. The focus of financial and savings literacy campaign in South Africa should be on financial control, planning, knowledge, and understanding as these themes have been identified to enhance household savings behaviour.
b. To encourage households to save, campaign on unhealthy credit products and services by the financial institution should be monitored.
c. Households should be encouraged by stakeholders to practicalize their knowledge of financial literacy with regards to savings and wealth creation.
d. Financial literacy factors have been shown to influence household saving behaviour. As such, the variables recognized in this study should be integrated into the savings campaign programs and initiatives in South Africa and
e. Financial literacy should be encouraged more in the working environment and in schools to equip people with the proper financial knowledge to make informed financial decisions.

5.1 Conclusion and Recommendation

The purpose of this research was to determine financial literacy among South African families and its impact on household savings behaviour. The goal of this research was to find financial literacy micro-variables that have a statistically significant impact on household savings behaviour. As a consequence, previous academic research on the connection between financial literacy and household saving behaviour were evaluated, and financial literacy has been identified as a key predictor of household saving behaviour. As a result, financial literacy factors related to financial control, financial planning, financial product awareness, and financial knowledge and comprehension were identified and utilized as independent variables to evaluate their relevance on family saves behaviour. The study's results showed that South Africans had a fair degree of financial literacy, which is consistent with prior literature's conceptual conclusions. Second, it was discovered that variables related to financial control, financial planning, financial knowledge, and comprehension had a favourable effect on household saves behaviour. That is, the more people understand these factors, the more likely they are to save. On the contrary, the factors under the construct of knowledge of financial goods and services were shown to have a negative effect on household savings behaviour, implying that the more South African households know about financial products and services, the less likely they are to save. As a result, it was determined that stakeholders and policymakers in South Africa in charge of financial and saves literacy should integrate these discovered positive financial literacy factors into their savings campaign programs.

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