Pak. j. life soc. Sci. (2025), 23(1): 3857-3866 E-ISSN: 2221-7630;P-ISSN: 1727-4915

Pakistan Journal of Life and Social Sciences
www.pjlss.edu.pk

https://doi.org/10.57239/PJLSS-2025-23.1.00304

RESEARCH ARTICLE

Factors that Influence Investment Decisions among Small Low-Income Households in South Africa

Professor Lawrence Ogechukwu OBOKOH, PhD[1*], Abimbola Abiola BABATUNDE[2], Olawale Olufemi AKINRINDE, PhD[3]

[1,2]Johannesburg Business School, University of Johannesburg, Johannesburg, South Africa
[3]Cost and Management Accounting, Cape Peninsula University of Technology, Cape Town, South Africa

ARTICLE INFO

Received: Sep 16, 2024

Accepted: Nov 6, 2024

Keywords

Savings

Poverty

NRHs

Government Grants

South Africa

***Corresponding Author:**

Lawrence.obokoh@jbs.ac.za

lechukwu2001@yahoo.com

ABSTRACT

This study probes the financial and monetary dynamics influencing the investment decisions of small, low-income households, specifically those identified as non-Ricardian households (NRHs) in South Africa, who profoundly depend on government aid. Drawing from data collected through the National Income Dynamics Study (NIDS) across waves 1 to 5, the study meticulously examines this longitudinal survey to uncover the socio-economic characteristics of NRHs. Using various estimation system, including pooled ordinary least squares (OLS), as well as stable and random effects models, the analysis unveils an indirect correlation between domestic grants and saving levels, indicating that social aid might discourage investment among these financially vulnerable households. The results reveals that socio-economic factors can explain almost half (48%) of the observed investment behaviour in those households. Despite the recurring challenges of poverty, the findings underscore their significance for policymakers. Based on these insights, the study advocate for governmental initiatives aimed at fostering entrepreneurship within low-income households, particularly among historically marginalized groups, as a strategy to reduce inequality and promote prosperity across generations. Furthermore, the study proposes policies that empower NRHs to pursue productive activities and access sustainable solutions, thus reducing their dependence on exploitative lending practices and ultimately breaking the cycle of poverty.

INTRODUCTION

South Africa is renowned for its stark wealth disparities, evident not just in statistics like the Gini coefficient but also in profound racial divisions. The roots of why people save and invest are entangled with the enduring legacies of apartheid (Babatunde and Obokoh, 2024). Despite strides towards progress, many families who have historically faced disadvantages find themselves still ensnared in poverty's grip. Apartheid policies stripped black South Africans of their economic agency, leaving them particularly vulnerable (Sabri, Reza, & Wijekoon, 2020; Farooq et al., 2010). As more individuals struggle to make ends meet, there's mounting pressure on the government to provide social welfare aid, with nearly 40% of households relying on these benefits to survive (Alex & Chungath, 2021; Jam et al., 2017). However, critics argue that this assistance might inadvertently foster dependence rather than fostering financial independence. Yet, there is a noticeable gap in research on how low-income families in South Africa manage their finances and investments.

This study seeks to understand what motivates saving and investment behaviors among families with limited resources, aiming to break the cycle of poverty. Specifically, it delves into the dynamics shaping the investment decisions of people heavily reliant on government aid. Grounded in economic principles, the study explores the interconnectedness of savings, investments, and economic growth, highlighting the significance both personal as well as public financial stability holds. By leveraging data from previous studies to categorize households, the research team hopes to gain insight into the financial hurdles faced by grant-receiving households compared to others. The study has two primary objectives: firstly, to uncover the factors influencing investment decisions among families dependent on government aid, and secondly, to explore whether receiving these grants impacts families' ability to invest in their future. Through a thorough examination of insights from the National Income Dynamics Study, in this empirical inquiry, this study purposes to shed light on these pivotal questions.

In economic theory, savings are perceived as a withdrawal from the circular flow model of a two-sector economy, while investment is viewed as an injection into the same model. The principal notion is that savings and investment ultimately balance one another, representing withdrawal (savings) and injection (investment) in opposite directions over time. The concept of poverty elucidates how various factors interact to perpetuate poverty for individuals or households. The challenge lies in the fact that each factor serves as both a cause and an effect, leading to poverty becoming self-perpetuating (Achar, 2012; Sabri, Reza, & Wijekoon, 2020; Abdullah et al., 2024). This cycle can be depicted starting from any of its elements. For instance, the low-income status characteristic of non-Ricardian households arises from low productivity, which, in turn, leads to diminished savings. Conversely, low savings, a consequence of low income, further reduces investment, exacerbating productivity challenges with human and material resources. This perpetuates the cycle by funneling low investment back into low income, ensuring that poverty persists.

Social grants aim to alleviate poverty by covering basic needs like household expenses, thereby easing the financial burden on families with children or elderly members. This allows households to earmark a larger percentage of their incomes to current or upcoming savings. Figure 1 illustrates the cyclical nature of poverty, highlighting the need for significant intervention. This intervention is viewed as a well-designed effort to aid. Social grants can function either as immediate relief, akin to giving out fish to encourage people to fish for themselves, or as a means of facilitating the acquisition of resources necessary for increased income generation, such as fishing nets or equipment. The value of these inheres factors like the disposition to labor and possession of productive expertise. Without the elements, handouts may inadvertently perpetuate the cycle of poverty.

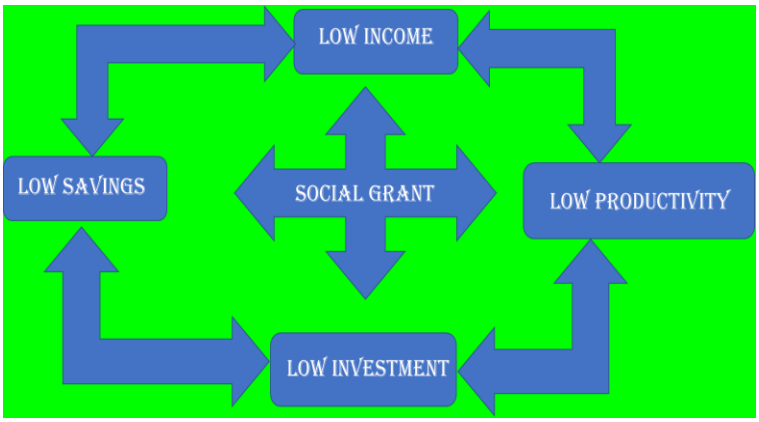

Figure 1: The Cycle of Poverty's Grip

Source**:** (Adapted from Babatunde and Obokoh, 2024)

Numerous studies have delved into how people's financial and social backgrounds shape their saving and investing behaviors (Achar, 2012; Sabri, Reza, & Wijekoon, 2020; Alex & Chungath, 2021). Factors such as age (Nie et al., 2019; Hauff et al., 2020; Worasatepongsa & Deesukanan, 2022), level

of education (Nandini, 2018; Lusardi, 2019; Sabri et al., 2020), as well as question as to whether they are living in municipal, or countryside were among those studied. The decline in investment rates is worrying due to its significant impact on economic development (Nguedie, 2018; Nguyen & Trinh, 2018; Yeboua, 2021). Research suggests that higher household savings rates can boost investment resources, drive industrial growth, reduce unemployment, stabilize prices, and foster sustainable development.

Aruna and Rajashekar (2016) examined various factors influencing individual investment decisions using behavioral finance theory, highlighting the complexities involved. They emphasized the importance of considering all variables and alternative investment options available in the market. Dahiya and Chaudhary (2016) further argued that the economic infrastructure, incorporating bodies, marketplaces, implements, as well as facilities, undertakes a crucial place in meritoriously channeling savings into investment. While financial marketplaces contribute to economic advancement by facilitating the flow of savings and investments, they also encounter limitations due to human behavior and systemic failures.

This study aligns with Ucan's (2014) assertion that financial growth enables the transfer of assets from savers to high-return ventures, thereby mitigating liquidity constraints. Despite the advantages of investment, many disadvantaged households in South Africa have struggled to save and invest following the end of the oppressive regime (Simlet, Keeton, & Botha, 2011; South African Reserve Bank Report, 2012ey). Traditional investment models like the flexible accelerator have been effective in explaining investment behavior in developed countries but may not be fully applicable to developing nations. Recent research has shifted its focus to economic dynamics in understanding investment across different countries, echoing Schumpeter's (1934) views on the significance of credit in investment decisions (Ucan, 2014). The organization and complexity of economic mechanisms facilitating the transfer of funds between investors and savers vary greatly between developed and developing nations (Gurley & Shaw, 1955).

2. EMPIRICAL LITERATURE REVIEW

Numerous studies have explored the socio-economic factors influencing investment decisions. This equally no shortage of studies on determinants that condition investment decisions from a general point of view. However, little understanding exists with regards to how some factors actually affect the investment decision of small and low-income households within the context of South Africa. Zwane, Greyling, & Maleka, (2016) demonstrated how historical economic disenfranchisement continues to affect black South Africans' financial behaviors. Education is considered another critical factor of investment decisions. Zwane, Greyling, & Maleka, (2016) went further to stress that higher educational attainment, indeed, correlates with better financial literacy and investment practices. This implies that financial education programs significantly improve investment behaviors in low-income households. These studies underscore the need for targeted educational interventions to enhance financial decision-making.

The influence of government grants on investment decisions is a contentious topic. Some studies argue that social welfare aid fosters dependency. Zwane, Greyling, & Maleka, (2016) report that households heavily reliant on social grants tend to save and invest less. This sentiment is echoed by Babatunde and Obokoh (2024), who find that while grants provide immediate financial relief, they may discourage long-term financial planning and investment. Conversely, some have suggested that social grants can serve as a catalyst for economic participation and investment when used effectively. It is believed that grants can alleviate immediate financial burdens, allowing households to allocate more resources towards savings and investments (Alex & Chungath, 2021).

Cultural norms and psychological factors may equally play significant roles in shaping investment decisions. It is believed that cultural beliefs could also impact on financial behavior. This is because some communities may prioritize communal support over individual investment. This cultural inclination can hinder the adoption of more individualistic financial practices. Psychological factors such as financial optimism and risk aversion are also critical. Aruna and Rajashekar (2016) find that

financial optimism positively influences investment decisions, while risk aversion tends to have the opposite effect. These psychological traits can either encourage or deter households from making investment decisions.

Access to financial services is another major determinant of investment behavior. Limited access to banking and financial services, especially in rural areas, restricts investment opportunities for low-income households. Aruna and Rajashekar (2016) further advocate for enhanced financial inclusion strategies to bridge this gap, emphasizing the need for accessible banking services to facilitate better financial decision-making.

Technological advancements have also played a role. Horioka and Wan (2007) discuss the impact of mobile banking and fintech solutions in increasing financial inclusion among low-income households. These technologies offer convenient and cost-effective ways for households to engage in saving and investment activities, thereby improving their financial stability.

Gender dynamics is also believed to be another significant influence on investment decisions. Female-headed households often face greater economic hardships and exhibit different financial behaviors compared to male-headed households. Lusardi (2019) report that women are more likely to invest in education and health, though they encounter more barriers to accessing financial resources. These gendered patterns highlight the need for policies that specifically address the challenges faced by women in low-income households.

Despite the extensive research, there exists an empirical gap with regards to factors that affect investment decisions among small low-income households in South Africa. While there are overwhelming studies on factors that affect investment decisions in general, little understanding subsists with regards to the determinants affect investment decisions within the context of low-income households in South Africa. Thus, this study seeks to fill the gap by attempting to examine the determinants that shape investment decisions within the context of small and low-income households in South Africa.

3. RESEARCH METHODOLOGY

This study embarked on a comprehensive exploration of existing literature to construct a theoretical framework, with the aim of establishing a pertinent theoretical backdrop and uncovering potential connections among the variables of interest. There was a deliberate focus on identifying the factors influencing investment behavior among poor families in South Africa. The theory that underpins the proposed archetype draws heavily on the insights of eminent economists who have extensively researched savings and investment behaviour. Additionally, latest categorizations by Li and Spencer (2016) were scrutinized to gain insight into factors influencing investment behavior amongst low-income families.

Within the context and terms of methodology, the study adopted a quantitative research approach, converting observational data into discrete units to facilitate econometric analysis. Quantitative studies aim to quantify and identify correlations between variables, prioritizing objective measures and utilizing computational methods to analyze cross-sectional survey data collected over time, commonly referred to as waves. Semi-processed coded data from Data First's National Income Dynamics Study (NIDS) were employed for data analysis using quantitative techniques. Data First, a reputable source of structured cross-sectional statistics for African states, provided the data for this research. The NIDS, initiated by Data First over a decade ago, represents the first comprehensive longitudinal survey in South Africa. Spearheaded by the presidency's Policy Coordination and Advisory Services, through the aid of Statistics South Africa and other government agencies, NIDS study is overseen by the University of Cape Town and conducted by the South African Labour and Development Research Unit (SALDRU). Its primary focus lies with the monitoring of individuals' and households' efforts to sustain their livelihoods, with biennial re-interviews conducted to collect demographic and socioeconomic information.

Inspired by the methodology employed by Horioka and Wan (2007), this study identified household savings as the central factor. Additional explanatory variables were stemmed from existing studies and are detailed in Table 1, alongside equations (1.6.2a and b) presented in subsequent sections of this study. Further discussion on additional variables pertinent to the inquiry is provided within the study.

3.1 Model Specification

This section aimed to develop models that align with the overarching and specific objectives of the study. Drawing inspiration from the framework proposed by Adegbite and Adetiloye (2013), this study adopts an inclusive approach, integrating Household Income, Household Expenditure, Ethnicity, Household Size, Head of Household Education, Investment, and other relevant factors that influence saving and investment behavior, as outlined below:

$$HHI = F\,(HHIC, HHEXP, HHSZ, HHHE, RACE, AGE, GENDER) \quad (1)$$

where HHIC is Household Income,

HHEXP is Household Expenditure

HHSZ is Household Size

HHHE is Head of Household Education

RACE is race.

AGE is biological age

GENDER stands for gender (Male, Female)

Equation (1) encapsulates investment behavior (HHI) for carefully chosen households in South Africa, integrating variables such as household income, expenditure, size, ethnicity, gender, age, and age squared (represented as a quadratic function). These dynamics stemmed from publicly available NIDS statistics obtained through Data First. Equation (2) provides a quantitative and econometric representation of the model, aiming to analyze undeviating effect of household socio-economic factors on the savings and investment behaviors of low-income households in South Africa:

$$HH_{it} = \alpha_0 + \beta_1 HHIC_{it} + \beta_2 HHEXP_{it} + \beta_3 HHSZ_{it} + \beta_4 HHE_{it} + \beta_5 RACE_{it} + \beta_6 GENDER_{it} + \beta_7 AGE_{it} + \beta_8 AGE2_{it} + \varepsilon_{it} \quad (2)$$

Based on this context, 'i' represents the count of households incorporated in the archetype, while 't' denotes the count of time phases. The regression factors, denoted as β and α_0, along with the specific household effect (u_i) and the regression error term (ε_{it}), are employed to investigate how investment levels respond to explanatory variables and external factors. Panel data analysis provides deeper insights into dynamic economic phenomena. Therefore, the study adopts a dynamic unbalanced panel approach, incorporating panel estimation and incorporating lagged dependent variables. This approach, commonly discussed as a dynamic panel model in econometric literature, enhances understanding of the dynamics involved in the savings and investment behaviours of low-income households.

Table 1. ***Characteristics of Household Variables in the Econometric Model***

Endogenous variable	**Description**
Household level of investment.	Household investment is the aggregate of all productive expenses made by all individuals living the same household with a purpose to having a more immediate or future income.
Explanatory/Independent variables	**Description**
HH-Income	Household income is captured as the aggregated income of all individuals in the same household.
HH-Size	Household size is the total number of members in the household
HH-Age	Age of household head (in years)

HH-Employed	Employment status of the household head (employed = 1 and unemployed = 0)
HH-Male	Gender of the household head (male = 1 and female = 0)
HH-Province	Households residing in the Western Cape is the baseline
HH-Rural	Household residing in the rural areas (1/0)
HH-Urban	Household residing in the urban areas (1/0)
HH-Farms	Household residing on farms (1/0)
HH-Black	Black households was the baseline for this study

3.2 Sources of Data

Basically, this study solely relied on statistics gathered from the National Income Dynamics Study (NIDS). With this approach, the entire size is distributed into separate, non-overlapping clusters identified as strata. The aim of using this sampling technique is to ensure a more precise representation of diverse populations, thereby enhancing accuracy compared to simpler random sampling methods (Maree et al., 2016:195).

3.3 Estimation System

To guarantee consistency with prior research, the study rigorously evaluated equation 2 using all three static panel estimation techniques: pooled ordinary least squares (POLS), fixed effects, and random effects models. These approaches are robust against heteroscedasticity and distributional assumptions, accommodating unbalanced panels and multiple endogenous variables. Initially, the study delved into the dynamics of savings among low-income households in South Africa adopting conventional POLS approach. Subsequently, it turned to fixed effects and random effects models to account for potential non-observable household features.

Concerns surfaced regarding the OLS computation of equation 2 due to its failure to address the potential endogeneity of explanatory variables. The correlation between regressors and disturbances fundamentally challenges the basic assumption of OLS consistency, leading to skewed and unreliable coefficient estimates. Endogeneity emerges as a crucial issue in this context, rooted in the theory of the poverty sequence. This theory posits that low income informs minimal savings, subsequently reducing investment and productivity, perpetuating the cycle. Each element of this cycle acts as both a cause and an effect, complicating the identification of underlying factors and casting doubt on the consistency of pooled OLS estimates.

In response, the study turned to the fixed effects model to mitigate the potential bias concomitant to pooled OLS in panel data analysis. This model incorporates individual household characteristics and tests, making it the most suitable empirical approach for exploring the factors that affect savings and investment among non-Ricardian households (NRHs) in South Africa. To select between the fixed and random effects models, the study relied on Hausman test, following guidance from Roodman (2008). Considering the specific characteristics of the data, such as its limited five-wave span and significant dropout rate starting from wave 1, dynamic modeling was deemed unsuitable. Consequently, the study narrowed the estimation techniques to static, fixed effects, and random effects models. Nonetheless, the NIDS data effectively captured fluctuations in household income and other factors, providing comprehensive insights into the drivers of savings amongst NRHs in SA.

4. RESULTS

In this part, the study presents some visuals that illustrate how the important variables relate to each other. After that, it delves into the next section, where it uncovers the socio-economic factors that affect the investment model. Then, the study analyzed the results, draw conclusions, and discuss what was found.

Investment Model

Table: 2

	(1)	(2)	(3)	(4)
VARIABLES	C_OLS	P_OLS	RE_OLS	FE_OLS
Lnhhincome	0.817***(0.0963)	0.817***(0.0963)	0.674***(0.0775)	0.418**(0.193)
Hhsizer	-0.0279(0.0187)	-0.0279(0.0187)	-0.0271*(0.0139)	0.0727(0.0771)
Lnhhgovt	-0.147**(0.0738)	-0.147**(0.0738)	-0.146***(0.0483)	-0.140(0.0890)
Coloured	0.448**(0.217)	0.448**(0.217)	0.525***(0.154)	
Asian/India	0.629*(0.358)	0.629*(0.358)	0.744**(0.292)	
White	0.777***(0.217)	0.777***(0.217)	0.903***(0.161)	
Male	-0.127(0.120)	-0.127(0.120)	-0.0671(0.0782)	
Urban	-0.356**(0.167)	-0.356**(0.167)	-0.365***(0.119)	
Farms	-1.264***(0.488)	-1.264***(0.488)	-0.616*(0.324)	
Eastern Cape	0.717***(0.251)	0.717***(0.251)	0.628***(0.203)	
Northern Cape	0.326(0.199)	0.326(0.199)	0.405***(0.139)	
Eastern Cape	0.244(0.279)	0.244(0.279)	0.326(0.228)	
KwaZulu-Natal	0.528**(0.253)	0.528**(0.253)	0.516***(0.167)	
North West	-0.0900(0.254)	-0.0900(0.254)	0.172(0.183)	
Gauteng	0.321(0.208)	0.321(0.208)	0.375**(0.160)	
Mpumalanga	0.0990(0.227)	0.0990(0.227)	0.242(0.188)	
Limpopo	0.508*(0.264)	0.508*(0.264)	0.639***(0.202)	
2.wave	0.213(0.174)	0.213(0.174)	0.451***(0.116)	0.553***(0.139)
3.wave	0.144(0.186)	0.144(0.186)	0.376***(0.128)	0.607***(0.180)
4.wave	0.273(0.176)	0.273(0.176)	0.382***(0.132)	0.448**(0.208)
5.wave	0.463**(0.189)	0.463**(0.189)	0.660***(0.148)	0.827***(0.281)
Constant	0.786(0.884)	0.786(0.884)	1.751***(0.631)	3.601**(1.633)
Observations	755	755	755	755
R-squared	0.482	0.482		0.307
Ramsey-Reset [prob]	**1.92[0.1246]**	_	_	_
F-test [prob]	**--**			7.02[0.000] ***
Wald test [prob]			470.71[0.000] ***	
Hausman test [prob]			15.20[0.0335] **	

Notes_Titles

In Table 2, C_OLS is the common effect model, P_OLS is the pooled OLS, RE_OLS is the random effect, and FE_OLS is the fixed effect OLS.

Findings presented in Table 2 outline the study's investigation into how socio-economic factors affect investment behaviors among struggling households in South Africa. The study has worked under the assumption that all households receiving government aid were facing severe financial difficulties during the NIDS data collection over five stages. It considered various explanatory variables, including household incomes from different sources like wages, farming, and part-time domestic work. Additionally, this study looked at factors such as household spending, government aid received, ethnicity, region, and geographic categorization. It further employed four different panel data models for assessment, including conventional least squares (OLS), stochastic effects, and stabilized effects models.

The analysis using pooled OLS, combined with the Ramsey RESET test for excluded variable bias, suggested there were no unnoticed individual influences, with an insignificant statistical test result of 1.92 at the 5% significance level, thus confirming the null hypothesis. To ensure reliability, the study also examined alternative panel data models. Both stochastic effects and stabilized effects models consistently showed significant directional effects, with F-test and Wald test results indicating significance at the 1% level. However, the Hausman test result of 3.023 did not reach significance, leading us to accept the null hypothesis favoring general least squares (GLS) approximations, thus endorsing the stochastic effects model as the most suitable choice.

The analysis using pooled OLS revealed several noteworthy findings: household earnings positively influenced household investment, while household size had an undesirable effect, and government aid received showed an adverse and substantial correlation with household investment, assuming other variables remained constant. As expected, black households showed lower investment compared to white households, with Asian/Indian households investing more than black households, and Coloured households displaying a greater propensity to invest than black households, all else being equal (Babatunde & Obokoh, 2024).

A significant observation was the negative association between households receiving government aid and household investment, contrasting with the positive connection observed with savings. This was because households receiving assistance were mainly low-income, tending to allocate savings toward expenditure rather than investment. This highlights the inclination of Non-Ricardian Households to have adverse savings and limited investment capacity, with government aid displacing household investment due to reliance on government support for present and prospective income.

These results reverberate with those of Zwane, Greyling, and Maleka (2016), who identified income, age structure, and employment status as primary factors that affect South African household savings and investments. The negative causal relationship assessed amongst household size and investment underscores the unfavorable impact of bigger family sizes on household investment. Though their study focused on the first three phases of NIDS statistics and did not target Non-Ricardian Households, the findings consistently support their results, notwithstanding the fluctuating degrees of effects.

5. SUMMARY AND CONCLUSION

This study shows that the pooled conventional least squares (OLS) sufficiently modeled because it is effective method for exploring the socioeconomic factors that shape investing behavior. The conventional least square (OLS) was adopted because of its simplicity and reliability in fitting the static model, considering the stability of key socioeconomic factors and their ability to provide unbiased results, as confirmed by the Ramsey RESET analysis. The findings support common economic assumptions, highlighting household earnings, demographics, location, and government assistance as the main socioeconomic drivers of investing behavior in South Africa. Particularly worthy of mention is the negative impact of government aid on household investing, underscoring how reliance on state help hampers families' current and future investment possibilities. Additionally, urban and rural households tend to save less than their rural counterparts. Moreover, urban households tend to mimic spending patterns influenced not only by their own income but also by their neighbors' spending habits, concurring to the findings of Ando, Albert, and Modigliani (1963). This urban spending factor includes costs like rent and fees for urban amenities.

In light of these findings, the study makes a germane input in addressing the investing challenges faced by low-income households in South Africa. While households continue to struggle with significant debts, compounded by mounting pressure from high interest rates and debt obligations, disposable income fails to keep up with rising prices, pushing several South African households to dip into retirement savings just to cover daily expenses, making investment efforts increasingly impractical, if not entirely out of reach. Given this situation, the study strongly recommends that the government take action to improve accessibility to resources such as land, support, and qualitative literacy for non-Ricardian households. This support would enable them to engage in meaningful

activities and assist more households in moving from non-Ricardian to Ricardian status. Additionally, efforts need to be made to create more job opportunities for low-skilled workers, along with initiatives aimed at reducing the birth rate amongst low-income households. These efforts would significantly reduce the financial burdens on disadvantaged families, increase their savings for investment purposes, and undertake a crucial lace in breaching the cycle of poverty.

REFERENCES

Abdullah, A. A., & Hameed, T. S. (2024). Extension Tasks for Agricultural Employees in the Field of Combating Desertification in Nineveh Governorate. *Pakistan Journal of Life & Social Sciences*.

Achar, A. (2012). Saving and Investment Behaviour of teachers-An empirical study. *International Journal of Physical and Social Sciences*, *2*(8), pp.263-286.

Adegbite, E. O., and Adetiloye, K. A. 2013. Financial Globalisation and Domestic Investment in Developing Countries: Evidence from Nigeria. Mediterranean Journal of Social Sciences 6 (4): 213–221.

Alex, M.A.M. and Chungath, M.M.J. (2021). A Study on Investors Perception on Investment Avenues and its Impact on Satisfaction and Post Investment Behaviour with special reference to Thrissur District. *NAIVIGYAN*, p.72.

Ando, A., and Modigliani, F. (1963). The 'life-cycle' hypothesis of saving: Aggregate implications and tests, *American Economic Review*, 53(1), 55–84.

Aruna, P. and Rajashekar, H. (2016), Factors influencing investment decisions of retail investors - A descriptive study, *International Journal of Business and Management Invention*, 5(12), 6-9.

Babatunde, A. A. & Obokoh, L. O (2024). Government Welfare Grant and Low-Income Households Investment Behaviour in South Africa. In T. Moloi, N. George (eds.), *Towards Digitally Transforming Accounting and Business Processes*, Springer Proceedings in Business and Economics, https://doi.org/10.1007/978-3-031-46177-4_36.

Dahiya, M. and Chaudhary, B. (2016), Salaried strata investment behavior towards financial products - review and prospects for future research, *International Research Journal of Management, IT and Social Sciences*, 3(7), 15-26. https://sloap.org/journals/index.php/irjmis/article/view/382.

Farooq, A. J., Akhtar, S., Hijazi, S. T., & Khan, M. B. (2010). Impact of advertisement on children behavior: Evidence from pakistan. *European Journal of Social Sciences*, *12*(4), 663-670.

Gurley, J. G. and Shaw, E. S. (1955). Financial aspects of economic development, *American Economic Review*, 45 (4), 515-538.

Hauff, J.C., Carlander, A., Gärling, T. and Nicolini, G. (2020). Retirement financial behaviour: how important is being financially literate? *Journal of Consumer Policy*, *43*(3), pp.543-564.

Horioka, C. Y. & Wan, J. (2007), The determinants of household savings in China: A dynamic panel analysis of provincial data, *Journal of Money, Credit and Banking,* 39(8), 2077– 2096.

Jam, F., Donia, M., Raja, U., & Ling, C. (2017). A time-lagged study on the moderating role of overall satisfaction in perceived politics: Job outcomes relationships. Journal of Management & Organization, 23(3), 321-336. doi:10.1017/jmo.2016.13

Li, S.M & Spencer, A.H. (2016), Effectiveness of the Australian fiscal stimulus package: A DSGE Analysis, *Economic Record*, *92*(296), 94-120.

Lusardi, A., 2019. Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, *155*(1), pp.1-8.

Maree, K.et al. (2016), *First steps in research* 2nd ed. Pretoria: Van Schaik.

Nandini, P. (2018). *Gender differences in investment behavior with reference to equity investments* (Doctoral dissertation).

Nguyen, C.T. and Trinh, L.T., 2018. The impacts of public investment on private investment and economic growth: Evidence from Vietnam. *Journal of Asian Business and Economic Studies*.

Nie, H., Vasseur, V., Fan, Y. and Xu, J. (2019). Exploring reasons behind careful-use, energy-saving behaviours in residential sector based on the theory of planned behaviour: Evidence from Changchun, China. *Journal of Cleaner Production*, *230*, pp.29-37.

Roodman, D. (2008). A Note on the Theme of Too Many Instruments. Center for Global Development Working Paper No. 125, Available at SSRN: https://ssrn.com/abstract=1101731 or http://dx.doi.org/10.2139/ssrn.1101731

Sabri, M.F., Reza, T.S. and Wijekoon, R. (2020). Financial management, savings behavior, investment behavior and financial well-being of working women in the public sector. *Majalah Ilmiah Bijak*, *17*(2).

Schumpeter, J. A. (1934). *The theory of economic development*, Cambridge, MA: Harvard University Press.

Simleit, C., Keeton, G. & Botha, F. (2011). The determinants of household savings in South Africa. *Studies in Economics and Econometrics*, 35(3), 1-20.

South African Reserve Bank (2012), *Quarterly Bulletin,* June 2012, No. 264.

South African Reserve Bank, (2012), *Financial Stability Review, March 2012*. [Accessed 12/05/ 2020].

Southern Africa Labour Development Research Unit (2009), *National Income Dynamics Study wave 1: User document*. Cape Town: Southern Africa Labour and Development Research Unit, University of Cape Town.

Ucan, O. (2014). The Determinants of investment: Panel data analysis of G7 countries, *European Journal of Scientific Research* Special (1):28-35.

Worasatepongsa, P. and Deesukanan, C. (2022). The Structural Equation Modelling of Factors Affecting Savings and Investment Behaviors of Generations Z in Thailand. *International Journal of eBusiness and eGovernment Studies*, *14*(1), pp.43-70.

Yeboua, K. (2021). Foreign direct investment and economic growth in Africa: New empirical approach on the role of institutional development. *Journal of African Business*, *22*(3), pp.361-378.

Zwane, T., Greyling, L. & Maleka, M. (2016). The determinants of household savings in South Africa: A panel data approach, *The International Business and Economics Research Journal*, *15*(4), 209-218.