FINANCIAL LITERACY AND RETIREMENT PLANNING BEHAVIOR AMONG ADULTS IN UGANDA

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DECLARATION

I, **Asege Tracy Vivian**, do hereby affirm that the dissertation is my original work and is presented in partial fulfillment of the award of the Bachelor of Science in Accounting and Finance degree in Uganda Christian University. It has never been entered in any other academic institution to receive any award. In cases where other people have been utilized, appropriate citations and clear references have been made to acknowledge their work.

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Date: 14th /April/ 2026 - Tuesday

APPROVAL

It is to certify that this research report by Asege Tracy Vivian, titled: Financial Literacy and Retirement Planning Behavior Among Adults in Mukono is conducted under my supervision and is thus approved to present before the School of Business in partial completion of the degree requirement of the Bachelor of Science in Accounting and Finance degree of Uganda Christian University.

Signature: .....
Mukisa Simon Peter

Date: Tuesday 14 April 2026

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ABSTRACT

This paper has explored the significance of financial literacy as a motivation of retirement planning behaviour among Ugandan adult people based on three aspects: financial knowledge, the ability to compute financial education and heterogeneity by gender and education level. The research was based on a cross sectional quantitative design using primary data of the 2025 Uganda Financial Literacy Survey of 52 working adults. Four hypotheses were tested by using descriptive statistics and correlation analysis as well as ordinary least squares (OLS) regression with log linear specification and an interaction term. The findings indicated that financial knowledge (= 0.182, p < 0.01) financial education (= 0.134, p < 0.05), and computation capability (= 0.156, p < 0.01) significantly positively influenced retirement planning behaviour, with financial knowledge having the most significant effect. The advantages were not, however, evenly shared: male and higher educated adults had stronger literacy planning relationships, which was measured by significant interaction terms and subgroup regressions. The model was able to explain 61-68% of the variation in the retirement planning. The researchers conclude that financial literacy improves retirement preparedness; however, women and less educated adults who receive less benefit need specific interventions. Suggestions can be made to incorporate financial literacy into school curricula, increase gender sensitive education programmes, enhance training on computation skills, and enroll vulnerable population groups in formal pensions.

Keywords: financial literacy, financial knowledge, ability to compute, financial education, retirement planning, Uganda.

CHAPTER ONE: INTRODUCTION

1.0 Introduction

This study looked at how financial literacy is a retirement planning behavior driver among adults in Uganda, specifically financial knowledge, calculation ability, and financial education. This chapter provides the background to the study, problem statement, purpose, objectives, research questions, hypothesis, scope, significance, justification, limitations and the conceptual framework used to guide the study.

1.1 Background of the Study

The retirement income changes and the challenge of retaining financial security have been a top issue in economics and development across the **globe**. Adults in both the rich and the poor societies tend to experience unstable income because of age, health issues, prices, and economic situations. Therefore, they rely on retirement savings, investments, and personal planning to maintain their living standards (Luo et al., 2022). The Life Cycle Hypothesis (Modigliani and Brumberg, 1954) indicates that individuals save in their working years and spend the savings in the retirement age. Nevertheless, this concept does not work well in reality due to imperfect financial markets, the inability of people to access financial advice, and poor financial literacy. Financial education and pension reforms in high income countries have seen many adults prepare retirement but there are still vast gaps. Adults lack the knowledge of basic financial terms such as compound interest, diversification of risk and inflation and thus it is difficult to plan well (Ackert and Deaves, 2010). Financial literacy does not have equal benefits, as well. The less educated adults and women who have little access to digital tools tend to be less financially educated with poorer retirement plans (Safari et al., 2021).

The economic shocks, low pension benefits, high living costs, and poor formal financial advice access make retirement planning even more challenging in most **African** countries (World Bank, 2021). A combination of personal savings, family assistance, and informal investments are often employed by adults, although they are

often not sufficient to provide long term financial security, particularly in the face of weak pension systems and frequent informal employment (Safari et al., 2021; NSSF, 2024). Financial services and education, such as digital banking, SACCOs, mobile money, and community literacy, have been growing in Africa in the last two decades. These have enhanced financial information access and have introduced new forms of allowing adults to deal with retirement (Bank of Uganda, 2020). But studies indicate that financial literacy is not necessarily a good predictor of better planning. In the short term, knowledge can assist but poor skills of computation or low level of education may cause gaps in confidence. Additionally, financial literacy advantages are based on gender, education, and access to digital technologies (Kasi Insight, 2025). Mobile money and community education have enhanced financial inclusions in East Africa, yet access to financial knowledge remains highly differentiated among different populations, and so the future of planning to retire remains significantly dependent on the social and economic status of an individual (NSSF, 2024).

Many of the patterns evident in Africa are reflected in Uganda. Financial services and literacy, such as SACCOs, Village Savings and Loan Associations (VSLAs), digital banking, and most recently NSSF UAP Old Mutual education campaigns have grown rapidly in the country. These have enhanced financial consciousness among the majority of adults. Nevertheless, there are significant gaps in the area of computation and gender variation as well as access to quality financial education particularly among women and the less educated adults. Consequently, there is a lack of preparedness of many adults to retire and having access to planning support that is reliable is unequal (Kasi Insight, 2025). It has been demonstrated nationally that adults continue to face common retirement insecurity, low pension benefits, and are excessively preoccupied with immediate needs, making them incapable of planning into the future (NSSF, 2024). The recent national survey of 2025 conducted in Uganda provides an excellent chance to examine these problems based on recent national data, which incorporates data on financial knowledge, computational ability, financial education, and retirement planning behaviour. Nevertheless, the majority of the current research in Uganda utilizes out-of-date data and fails to reflect recent

developments, such as the increase in the popularity of digital resources and the financial hardships in its wake following the pandemic (NSSF, 2024). This leaves a knowledge gap in determining whether financial literacy is effective in assisting adults to plan their retirement or abandon certain groups, which this research seeks to fill.

1.2 Statement of the Problem

Ideally, in an economic world, adults are expected to be financially secure during the working-retirement transition, through saving, investment tools and good financial literacy, as outlined in the Life Cycle and Expected Utility hypotheses (Modigliani and Brumberg, 1954; Ackert and Deaves, 2010). This stability is very critical so that short term declines in income may become a long term suffering. Nonetheless, it is not the case in most developing countries since financial markets are not perfect, individuals have low levels of computation, and formal education is minimal, meaning adults diminish their planning activities or turn to poor informal assistance during retirement (Safari et al., 2021; Park, 2022). These issues are present in Uganda despite the recent increase in financial inclusion programmes like SACCOs, digital platforms, and community education. Evidence at the national level indicates that adults continue to experience high levels of retirement insecurity, reduced pension benefits and spend excessively on short-term needs, which restricts their ability to plan (NSSF, 2024). Existing information recognizes financial literacy as a beneficial attribute, and financial education changes have attempted to bridge knowledge gaps (Kasi Insight, 2025). However, global studies indicate that financial literacy may assist or make one more vulnerable based on his or her gender, education, and access to tools (Safari et al., 2021). In Uganda, the existing research on the impact of financial literacy on retirement planning is insufficient to determine whether it enhances or increases the gaps in planning, particularly in women and low educated adults. Most available studies use older data that do not reflect new trends such as the growth of digital tools and unstable income after the pandemic (NSSF, 2024). Consequently, policy

makers do not have new evidence within the country on the effectiveness of financial literacy as a planning tool. This paper seeks to address that gap by analytically examining the financial literacy contribution to retirement planning behavior with the current 2025 Uganda survey data with the aim of influencing improved financial education and social protection policies.

1.3 Purpose of the Study

This study sought to discover whether financial literacy helps adults in Uganda achieve effective retirement planning behavior when they face income changes during retirement.

1.4 Objectives of the Study

The objectives of the study were:

i. To examine the effect of financial knowledge on personal retirement planning among adults in Uganda.
ii. To assess the relationship between computation capability and retirement planning behavior among adults in Uganda.
iii. To analyze whether financial education influenced retirement planning behavior among adults in Uganda.
iv. To examine differences in the retirement planning role of financial literacy across respondent characteristics such as gender and education level.

1.5 Research Questions

i. What was the effect of financial knowledge on personal retirement planning among adults in Uganda?
ii. What was the relationship between computation capability and retirement planning behavior among adults in Uganda?
iii. Did financial education influence retirement planning behavior among adults in Uganda?

iv. Did the retirement planning role of financial literacy vary across respondent groups such as gender and education level?

1.6 Hypotheses of the Study

The following hypotheses were used:

i. H1: Financial knowledge had a significant effect on retirement planning among adults in Uganda.
ii. H2: Computation capability was positively associated with retirement planning behaviour among adults in Uganda.
iii. H3: Financial education positively influenced retirement planning behaviour among adults in Uganda.
iv. H4: The retirement planning effect of financial literacy varied across respondent groups such as gender and education level.

1.7 Scope of the Study

1.7.1 Geographical Scope

This research included the adults who worked in Uganda. The 2025 primary survey data utilized in this research was gathered among the respondents in various districts of Uganda, and thus is the representation of the national population in the aspect of gender, level of education and employment status. This geographical coverage enabled the research to study the financial literacy and retirement planning behaviour on a national scale, and not restricted to a district or region.

1.7.2 Time Scope

The latest survey cycle in 2025 was used in this study and financial literacy dimensions (financial knowledge, computation ability, and financial education) and retirement planning behaviour were measured simultaneously. The cross-sectional quality of the data was a real time picture of how adults in Uganda reacted to the retirement needs by using financial literacy. Nonetheless, the time frame was only one point in time, i.e., the study was not able to trace long-term changes and to determine cause and effect relationships across different time frames.

1.7.3 Content Scope

The research was based on the connection between the dimensions of financial literacy (financial knowledge, computation capability and financial education) and the behaviour of adult people in Uganda in regard to retirement planning. Specifically, the research investigated: (i) how financial knowledge affects individual retirement planning; (ii), how computation capability and retirement planning behaviour relate to each other; (iii), how financial education impacts on the retirement planning behaviour; and (iv) how respondent characteristics including gender and education level differ in the retirement planning role of financial literacy. The research utilized the information of a structured Likert-scale questionnaire of knowledge, computation, education and planning behaviours. It focused on excluding national pension policy, macroeconomic retirement dynamics or employer-specific pension schemes, to keep in line with individual-level financial behaviour theory.

1.8 Significance of the Study

This analysis presented up-to-date data on the use of financial literacy by adults in Uganda to address retirement transitions by integrating knowledge, computation, education, and planning data about the 2025 survey, which had not been studied extensively previously. The expected beneficiaries of this study included institutions like the National Social Security Fund (NSSF), Bank of Uganda (BoU), and the Ministry of Finance, Planning and Economic Development because they would understand whether financial literacy assisted adults in planning their finances or had any gaps that needed to be addressed to enhance financial inclusion policies, retirement awareness programmes, and community financial education initiatives.

The results were also applicable in the commercial banks, insurance companies, SACCOs, and financial education providers as they learned how various adults utilized literacy in their planning process and this enabled them to design better products, build digital tools and literacy programmes, particularly to women and less educated adults. The findings could also be utilised by development partners like the World Bank, UNDP and financial inclusion organisations to develop more effective interventions such as specific workshops, digital literacy campaigns, and resiliency programmes to bridge the retirement gap among adult people. Moreover, this study

also benefited the Uganda Bureau of Statistics (UBOS) since it allowed the organization to appreciate the importance of national surveys that can be used to enhance the household finance modules in the future.

Lastly, the study was useful to students of accounting and finance, university lecturers and researchers in the field of behavioural finance and household planning, as the students gained new evidence of how financial literacy would work in such a developing country as Uganda. It contributed to understanding the constraints of financial capability theorizations in the real world in which literacy limitations are present, and it offered a solid basis to further research on the subject of retirement security, financial behaviour, and household vulnerability.

1.9 Justification of the Study

The critical nature of this study was that it offered up to date national evidence on whether financial literacy would assist adults in Uganda to plan their retirement when faced with income change. Despite the richness of the data in the 2025 survey on the dimensions of literacy and planning behaviours, these two areas were not combined in a comprehensive manner to answer the question whether literacy was in fact an actual force behind planning. It implied that most policy debates of financial education and retirement security remained hypothetical instead of factual. In the absence of this study, policy makers and financial regulators would have remained unclear on whether literacy enhanced or created gaps in retirement preparedness which could easily encourage programmes that could inadvertently enhance inequality, particularly among women and the less educated adults who bore the brunt of the planning gaps. Thus, this research was able to bridge a significant gap in knowledge and assist more informed decision making on household financial security and poverty reduction in Uganda.

1.10 Limitations of the Study

Although this study provided important empirical evidence, it had certain limitations that ought to be taken into account when explaining the findings. To begin with, the 2025 survey data refers to the cross-sectional type of data, which means that it measures the conditions of adults at one moment in time, not at multiple periods.

Due to this reason, the study might demonstrate correlations among the financial literacy dimensions and retirement planning but could not determine the cause and effect or monitor the long-term results like the sustainability of retirement savings in the long run. In addition, the survey used self-reported Likert-scale data, which might create social desirability bias, especially for sensitive issues like financial confidence, which might be over-reported.

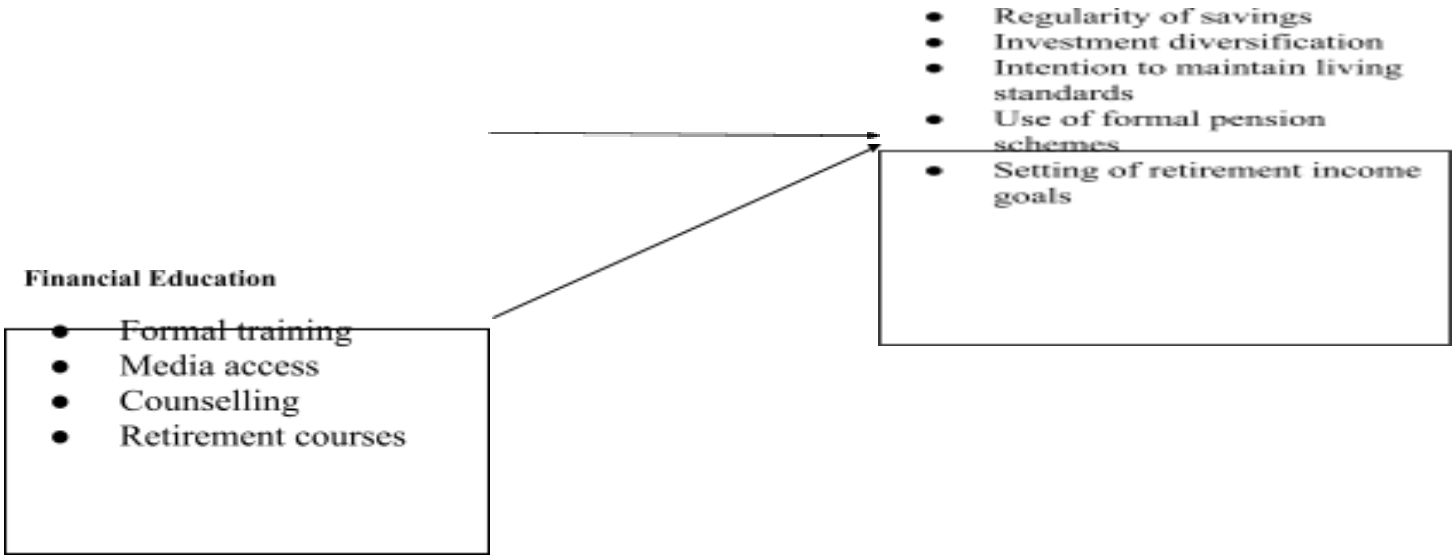
The data also lacked a lot of specifics of real retirement savings portfolios. Although it was an effective way to capture planning behaviours, it has not been able to capture all the vital areas like real contribution levels or portfolio performance. This implied that the study primarily captured planned planning as opposed to actualisation which could conceal the distinction between intended and actual behaviours. Nevertheless, the study was still applicable due to these constraints as it utilized the latest primary data on the district level and included both literacy dimensions and planning in a single analysis. Despite the necessary precaution in making long-term or causal conclusions, the results nevertheless offered valuable and timely information on the topic of adult financial behaviour and can be used in future studies.

1.11. Conceptual Framework.

Conceptual Framework for Financial Literacy and Retirement Planning Behaviour

INDEPENDENT VARIABLES **DEPEDENT VARIABLES**

FINANCIAL LITERACY DIMENSIONS **RETIREMENT PLANNING BEHAVIOUR**



The following chapter took part in a massive survey of the theoretical and empirical literature pertinent to the present study that challenged existing conceptualizations of financial literacy, retirement planning behaviour and behavioural drivers. It contextualized the research to the already known strands of economic and behavioural theory and previous research, thus the conceptual and analytical underpinnings that informed the selection of variables, hypothesis, and overall framework of the study.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

In this chapter, the theoretical and empirical literature on financial literacy, retirement planning behaviour and the drivers are critically reviewed. The general intention is to situate the current study in the current academic debates, clarify the points of agreement and disagreement, as well as shed light on the empirical and conceptual gaps that inform the ongoing investigation. This is done sequentially through the global evidence to the African, Sub-Saharan, East African, and lastly Ugandan contexts to show the geographical and institutional variations in responding to financial capability and retirement preparedness.

2.1 Theoretical Review

The intertemporal choice theory explains the basis of the retirement planning theory, where rational adults would love to enjoy financial security stable patterns even though the incomes of the short-run might undergo changes upon retirement (Modigliani and Brumberg, 1954). Both the Life-Cycle Hypothesis (Modigliani & Brumberg, 1954) and the Expected Utility Theory (Ackert & Deaves, 2010) assume well-functioning financial knowledge and education markets that allow both accumulation during working years (Life-Cycle Hypothesis) and rational decision-making under uncertainty (Expected Utility Theory). However, it was later in the literature that these idealised assumptions were refined to take into account limited rationality, behavioural biases, and limitations to financial literacy into the analytical model.

The Theory of Planned Behavior by Ajzen (1991) revealed that in the case of less financial knowledge by adults, retirement planning intentions are too much exposed to perceived behavioural control gaps and not as predicted by frictionless decision models. The extensions of bound rationality by Park (2022) also said that it is specifically due to the information asymmetry and the inability to fully realize financial capabilities that adults are unable to optimize the process of retirement planning and instead they develop precautionary habits. Evidence of intertemporal financial mobility and responsiveness in planning across populations of varying levels of education indicates that these variables do not universally interact with rationally determined choices based on behavioural control (Luo et al., 2022). On the whole, these theoretical works reorient retirement planning as a constrained optimisation procedure as opposed to the automatic result of rational choice.

2.2 Empirical Literature Review

An overall finding of empirical research done in developing countries is that retirement planning behaviour is more than sensitive to knowledge gaps and literacy limitation in the presence of imperfect financial capability. In one of the most popular consulted works, Safari et al. (2021) examined the group of employees within the

public sector in Bukavu, Democratic Republic of Congo and found out that the readiness to plan the retirement process in the case of adult exposure to low financial literacy drops by large percentages. This is more so in adults who are less educated, and thus the ability to plan is not uniformly spread among the population. This means that in low-literacy settings, there is no way adults can ensure their retirement security when the income transitions occur; on the contrary, they are facing a shortfall in planning.

Similarly, Luo et al. (2022) examined life-cycle consumption and retirement decision-making and determined that mortality risk and discounting preferences significantly lower optimal planning readiness because adults tend to increasingly rely on literacy elements like knowledge accumulation and computer-based calculations as coping mechanisms. Their findings indicate that even though adults attempt to plan the process is not full; gaps in planning still exist. In most cases, literacy is a short-term response, but it does not always avert a fall in planning, especially when there is severe education or gender differences.

Further information on the importance of particular dimensions of literacy was provided by Safari et al. (2021), who concluded that financial knowledge was positively correlated with the degree of short-term planning preparedness; in other words, more literate adults have higher chances to retain higher planning rates compared to less literate adults. However, it was also found that the percentage change in planning among low-literacy adults in retirement transitions was even more negative, implying that weak literacy might put a strain on financial security rather than reducing it. This is an important point: literacy is not necessarily a perfect planning tool and its effectiveness depends on the surrounding environment where it is sought and used.

In another study, Park (2022) found heterogeneity of the connection between literacy and planning in adults. Their results showed that adults with better educational backgrounds and access to better digital devices can employ literacy to stabilize planning more effectively, and financially disadvantaged adults have less to gain. This means that literacy can lead to a smooth retirement planning process or even to a

derailing process depending on the adult issues such as gender, education level and accessibility of the tools.

Still on the African setting, NSSF (2024) and Kasi Insight (2025) examined the retirement planning behaviour in Uganda and found out that more financially literate and educated adults are over 20% more likely to have stable levels of planning as compared to their less endowed counterparts. This proves that literacy is critical in defining resilience to retirement transitions. It also shows that planning changes impact female and lower educated adults more because they are vulnerable to knowledge gaps and low access to the digital world.

Furthermore, the World Bank (2021) presents cross country evidence that formal financial education (community programmes and digital tools) can close shortfalls in planning amongst adults, but is often insufficient to close a large or substantial capability gap. Such systems are more effective when dealing with small and single knowledge gaps as opposed to large gaps that impact whole communities, such as low pension coverage or economic crisis. That is also why this is another justification of why financial literacy can be another enabling tool adults can turn to despite their uncertainty whether it will be effective.

Overall, there are three crucial trends evident in the empirical literature. To begin with, the lack of knowledge has always been accompanied by decline in the retirement preparation, particularly in women and uneducated adults. Second, the intention to plan in the short-term is usually associated with literacy aspects, meaning that this strategy can provide short-term relief to adults. Third, there is an unequal distribution of the capacity of literacy to drive planning whereby, in most instances, some adults are advantaged and others are under greater pressure of planning.

Nevertheless, although this abundance of evidence has been obtained, the gap in the literature remains obvious, especially in the context of Uganda. Most existing studies are founded on older national data, or do not investigate financial knowledge, computation capability and financial education along with retirement planning results

with recent primary data. The 2025 Uganda survey provides an exceptional opportunity to address this gap by providing more up-to-date and detailed statistics on the financial literacy of adults and their retirement planning behaviour. Therefore, this study adds to the existing empirical studies by providing current evidence on whether financial literacy actually leads to retirement planning in Uganda or it is a symptom of capability distress especially when it comes to vulnerable groups.

2.2.1 Financial Knowledge and Personal Retirement Planning

On a worldwide scale, studies have always shown that knowledge gaps are converted into apparent planning volatility, especially among literacy constrained adults (Safari et al., 2021). According to classical intertemporal models, such as the Life Cycle Hypothesis and the Expected Utility Theory, rational agents in the economy accumulate knowledge or seek education to adjust planning behaviour (Modigliani & Brumberg, 1954; Ackert & Deaves, 2010). Nevertheless, as practice demonstrates, the presumption that information markets are frictionless is in most instances proven to be false by practical evidence. According to Safari et al. (2021) and Luo et al. (2022), there are good econometric findings that the planning sensitivity to knowledge gaps is higher when the adults have limited computation power i.e., the planning is imperfect. Park (2022) elaborates on this argument using the concept of the bounded rationality model that states that precautionary behaviour will be created precisely due to the uncertainty about retirement income and the potential existence of financial capability limits.

The knowledge planning interconnection is stronger in developing areas. According to Asian and Latin American research literature, even short-term fluctuations in financial knowledge result in the loss of planning preparedness due to the weakness of formal education market and the partial protection of adults by informal systems (Safari et al., 2021; World Bank, 2021). All these outcomes bring down the utility of perfect planning models across the world by exposing the institutional reality constraints.

Evidence of African is no exception. Knowledge gaps in the Democratic Republic of Congo and Uganda were identified to reduce the results of retirement planning, which

confirms the idea that vulnerability is a multidimensional construct and not just an income problem (Safari et al., 2021; NSSF, 2024). It is also found that planning contraction is commonly defined by the loss of confidence and sacrifice of education that indicates long term security impacts that extend beyond deteriorating preparedness (Kasi Insight, 2025). It is important to note that these findings emphasize the reality of knowledge gaps, which lead to cognitive, behavioural and financial restrictive effects, and it is hard to believe that decision-making by rational individuals is purely rational.

The level of education and availability of digital tools continue to heavily influence the East African response to knowledge gaps. NSSF (2024) shows that the decrease in planning among female and less educated adults in Uganda affects them more, which means that planning is not a determinant but structural resilience. Kasi Insight (2025) also elaborates that with digital access, there is the ability to share scarce knowledge, but the benefits are not fairly distributed. These studies all suggest that the knowledge gaps systematically decline planning preparedness, yet the degree of the decline is conditionalized by the institutional and adult characteristics and is not a universal rule of behaviour.

2.2.2 Computation Capability and Personal Retirement Planning

The positive, non-consensus relationship is between the ability to compute and planning internationally. Strong computation has been associated with the reduction in planning confidence despite the short term effect of raising the level of planning preparedness by removing calculation limitations, although low proficiency (Safari et al., 2021). Kasi Insight (2025) demonstrates that the uncertainty of planning among adults with low computation ability is amplified by transitions to retirement; thus, low capability is not able to smooth the oscillations in planning, on the contrary, it enhances them.

European/Asian data confirms the conditionality of the effects of the ability to compute. The study by Safari et al. (2021) found that planning on the basis of digital

buffers is influenced by the capability of computation; low-proficiency adults without access to digital capabilities are the most unstable. These results help to refute any naive assumption that computation power is necessarily helpful to a planning process, but rather characterize it as a two sided financial instrument.

Evidence in the developing country context is less evident and is normally contradictory. NSSF (2024) argues that the extent of computation can be both a stabiliser and a vulnerability multiplier simultaneously, as well as by education level, digital access and predictability of retirement income. Consequently, the ability to compute can not be evaluated outside of the terms of structural education, expectations of access, and adult features.

2.2.3 Financial Education and Personal Retirement Planning

Financial education as a hypothesis of the Theory of Planned Behavior that allows people to plan is a theoretical suggestion, yet the results show that they are not full and complete (Ajzen, 1991; UAP Old Mutual, 2024). The article by Safari et al. (2021) introduces experimental evidence on the proposal that adults engage in financial education following retirement shock on awareness but planning activities do persist, particularly in the discretionary sphere like investment decisions. This means that education suppresses, but not eliminates planning gaps. Similar patterns are found in surveys in Uganda where access to education reduces the rate but not the prevalence of planning deficits (NSSF, 2024).

The same trends have been estimated using comparative African studies. Kasi Insight (2025) indicates that, irrespective of education programmes, planning short-falls in some groups still exist, which indicates that financial education is not an answer but a subset of a broader range of capability building practices. As NSSF (2024) and Bank of Uganda (2020) also show, other policies like community campaigns are also likely to be created due to the retirement shock, and thus education is not the only choice.

New capabilities enhancing avenues are suggested by the new digital education and community programmes, which have been suggested in recent financial inclusion literature. Overall, it would be fair to state that the alleged consensus involving cross regional evidence is that financial education does not constitute an ideal planning mechanism but rather a partial impetus in incomplete markets, which again upholds the theoretical foundation of literacy constraint persistence (Safari et al., 2021; Park, 2022).

2.2.4 The Heterogeneity of Retirement Planning Outcomes

Heterogeneity is becoming an increasingly popular mode of analysis in the current academia. As it is exemplified by Safari et al. (2021), the heterogeneity of financial literacy plays a major role in the marginal propensities to plan, and that the aggregate analysis obscures the distributional reality. Park (2022) puts forward a similar argument and says that the mobility of intertemporal planning is not evenly distributed across gender and education groups, and it thus needs to be disaggregated. The other consequence, which Kasi Insight (2025) discover, is that low literacy adults respond to retirement transitions differently than their high literacy counterparts, which is an indication of structural divergence, and not behavioural homogeneity.

When one looks at an African context, there is heterogeneity in terms of gender, level of education and geographical location. NSSF (2024) shows that the social networks have already introduced benefits of planning among those adults who are already members of financial education networks, which is an indicator of inequality in access to informal safety nets. World Bank (2021) indicates that education and literacy policies result in bigger planning reactions amidst more educated adults, suggesting that financial instruments do not neutralise but are employed to amplify prevailing disparities. In Uganda, there is also evidence that male and higher educated adults are more likely to gain by financial deepening than female and lower educated adults (NSSF, 2024; Kasi Insight, 2025).

What it means is that retirement planning is a behavioural phenomenon and at the same time a structural phenomenon. The existence of various avenues of literacy,

levels of education, and market proximity leads to disparities in the ability to plan effectively. Consequently, empirical models with homogeneous assumptions are likely to distort the dynamic aspects of planning and provide ineffective policy recommendations to deal with the vulnerabilities (Safari et al., 2021).

2.3 Ugandan and Regional Evidence

The literature on the region is still relatively scarce even though there is a fast process of financial transformation. Research that targets Uganda frequently uses previous national waves, thus limiting their meaning when it comes to district level changes and digital literacy expansion (Kasi Insight, 2025). The new data introduced by NSSF (2024) reveal that the spread of financial education about the availability of retirement planning is increasing, and micro financial relationships, which have not been given enough attention, contribute to it. Nevertheless, these macro level observations can hardly be linked to micro level planning studies, and thus there is an empirical gap between policy and adult welfare studies.

The Ugandan research is centered on national surveys, informal consulting, and social networks rather than the significance of financial literacy as a key planning tool. Kasi Insight (2025) points out higher education and access to digital resources as the most significant resilience factors, and planning portfolios among lower educated adults are noted to be the most difficult issue by NSSF (2024). Such studies though significant, unwillingly obscure the role of both formal and digital channels of literacy which are being changed. The small sample size of integrated knowledge, computation, education and planning research emphasizes the need of contemporary empirical research on the topic based on the current national primary data, as financial education programs and digital applications keep growing.

2.4 Synthesis and Research Gap

The literature review boils down to some key insights. To begin with, all adults are interested in planning retirement yet this only functions based on literacy and structural determinants and not pure rationality (Modigliani and Brumberg, 1954; Ajzen, 1991). Second, financial literacy is a twofold effect, offering tools to make

decisions quickly, but may also leave gaps unresolved (Safari et al., 2021; NSSF, 2024). Third, heterogeneity is not an external phenomenon but it is endemic and defines the beneficiary of literacy and those who are disproportionately impacted by planning shortfalls (Kasi Insight, 2025; Park, 2022). Lastly, developing country conditions are incomplete capability markets where there are formal and informal mechanisms in imperfect competition (World Bank, 2021).

Despite compelling evidence on the subject in the rest of the world, very little contemporary Uganda specific analysis has been done, particularly analysis that involves financial knowledge, ability to perform calculations, and financial training with heterogeneous adults in a single empirical model using recent national data. The existing literature is either too small scale or relies on national surveys without the connection of macro literacy measures with micro planning behaviour outcomes. This fragmentation is a limitation to the policy and theory-irrelevance. This is a gap that must be bridged to sustain academic development and policy grounded, evidence based financial education, since it will enable a more holistic perception of whether literacy is a planning tool, or ability enhancer in the dynamic financial landscape in Uganda.

In the following chapter, the research methodology which will be applied in carrying out an empirical study of this investigation is presented. It puts into practice the above theoretical and empirical findings by addressing the research design, data source, variable construction and how the relationship between the dimensions of financial literacy, retirement planning behaviour and adult characteristics is tested in Uganda.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter explained the methodology that was used to examine the hypothesis that financial literacy is the cause of retirement planning behavior in Uganda among the adult population through secondary data, the 2025 Uganda national survey. It

discussed the major variables, data sources, data preparation steps and outlines the statistical procedures such as descriptive analysis, econometric models and model specifications, variable transformations, and diagnostic tests.

3.1 Variable Definition

The index of retirement planning behaviour is the main dependent variable of interest which was derived based on the 2025 Uganda survey Likert scale questions. The composite mean score of savings intentions, investment choices and long term budgeting behaviours were recorded in the study. As survey data are usually right skewed as the differences between planning readiness usually are large, the study log transformed the planning index to stabilise the variance, decrease the influence of outliers, and make the interpretation of the elasticity simpler.

The three dimensions of financial literacy, which will be obtained with the help of the structured questionnaire, are the explanatory variables. Three constructs, financial knowledge score, computation capability score, and financial education score, were used to measure financial literacy. These measures allow the research to establish whether financial literacy can make retirement planning to be resilient in the face of income transitions in adults.

The financial literacy variables were determined by using the 2025 Uganda survey Likert scale items and used as the primary determinants of planning behaviour. Financial knowledge entails the knowledge of the fundamental financial concepts (interest rates, inflation, diversification of risk) as well as the ability to plan and be confident about the same. Computation is the ability to perform with numeracy skills, calculating interest on compounds, and understanding financial reports. Financial education is defined as the use of formal financial literacy programmes, access to financial information by media or digital platforms and perceived effects of financial education on planning behaviour. In this study, the indicators are used to establish adults with different degrees of financial ability to disrupt or augment normal planning patterns.

Demographic and socio economic factors are used as control variables: gender and age, educational level and the duration of employment of the respondent. When they are included, it makes sure that the relationship of literacy planning identified is authentic and not based on the variation in composition or experience.

3.2 Sources of Data

The study used secondary data in the form of the structured questionnaire survey of the employed adults in Uganda in 2025. The survey included detailed responses on the financial literacy dimensions, retirement planning behaviours, demographics and employment characteristics. The merged dataset of all sections (knowledge, computation, education, planning and biodata) was used in the study.

By unique respondent ID, all sections were put together. All the sections were checked before analysis and the names of variables, coding, and missing data were treated in a similar way. After finishing, the combined data were cleaned, patched where there were inconsistencies, codes were recoded where necessary and the continuous variables were log transformed where necessary to enhance the model.

3.3 Data Analysis

Quantitative methods were used to analyse the relationship between financial literacy and retirement planning behaviour. The initial step involved generating descriptive statistics to summarize the key features of planning readiness, literacy levels and socio economic characteristics by the use of measures of central tendency (mean, median, mode) and dispersion (range, variance, standard deviation) to illustrate patterns of distribution.

Two models were then estimated each of which was geared towards a different element of the retirement planning process. The first studied the influencing factors of planning behaviour. The second looked at the interaction between the literacy dimensions and the respondent characteristics that indicated the presence of whether literacy reinforced planning among the various groups (gender and education level). The entire data management and econometric analysis tasks were done in Stata.

3.4 Model Specification

Two econometric models outlined below were used to guide the empirical analysis

Model 1: Main Effects Model

The first model tested the impact of the three financial literacy dimensions on retirement planning behaviour without testing interactions. The planning index is continuous and thus estimates were made with Ordinary Least Squares (OLS). The equation is:

Equation 1: Retirement Planning Model (Main Effects)

Where ß0 + ß1Knowledge_i + 2Computation_i + 3Education_i + 4Gender_i + 5Age_i + 6Education Level_i + 7Employment Duration_i + ui = ln (Planning_i).

Where:

• ln (Planning_i) = natural logarithm of retirement planning behaviour index of individual i. Knowledge i: financial knowledge score.

• Computation -i = computation capability score. Educationi = score of financial education. Control variables include: Gender i, Age i, Education Level i, Employment Duration i. Where u i represents a random error.

Where:

The survey weighted linear regression in Stata was used to estimate the model in order to consider the sampling design.

Model 2: Heterogeneity Interaction Model

The second model specifically considered the hypothesis of the model that the effect of financial literacy on retirement planning is different in respondent characteristics (gender and education level). This model contains interaction terms of literacy dimensions and these characteristics. The

Equation 2: Literacy-Heterogeneity Interaction Model

Planning i = γ 0 + γ 1 Knowledge i + γ 2 Computation i + γ 3 Education i + γ 4 Gender i + γ 5 Education Level i + γ 6 (Knowledge i Gender i)

Where:

The interaction coefficients are: γ67 to 711.

- єієi denotes the error.

A statistically significant positive interaction coefficient value would suggest that literacy is more helpful in planning to some groups (e.g., males or more educated adults), whereas the reverse would be a statistically significant negative or non-significant value would indicate differential or no differential effects.

The reasoning behind the log transform of the planning index is as follow. First, the log transformation stabilises the variance and reduces the effects of outliers to improve the quality of the model in the planning regressions. Second, the coefficients used in log linear models are more easily interpreted in terms of elasticity, which leads to easier interpretation of findings and policy applicability. Third, a logarithmic specification is used to make it easier to interpret the interaction of literacy dimensions in the heterogeneity model.

3.5 Estimation Techniques

3.5.1 Descriptive Analysis

The analysis starts with descriptive analysis to give a concise description of the sample adults. An overview of the planning preparedness, literacy rates and socio economic conditions is provided. Mean, median, mode, and standard deviation, minimum, maximum, skewness and kurtosis are calculated in Stata.

Such descriptive outcomes aid in identifying common planning trends, prevalence of literacy rates and demographic features. They also report the presence of data problems like extreme outliers or skewed distributions and this is why transformations like the logging of the planning index is necessary.

3.5.2 Correlation Analysis

Then, it will be necessary to conduct a correlation analysis to identify the direction and strength of the relationship between the most important variables, i.e., financial literacy dimensions and planning outcomes. This will enable the study to:

- Determine preliminary relationships to support the conceptual framework.
- Determine the relationship between sets of variables and this information is used to specify models.

Nevertheless, correlation is not causation, yet is a valuable diagnostic instrument and it is used to get acquainted with data prior to econometric estimation.

3.5.3 Diagnostic Tests

Diagnostic tests are conducted to ensure that the regression models meet the assumptions of classical linear model.

3.5.3.1 Multicollinearity Test

To determine the presence of multicollinearity among the independent variables, the Variance Inflation Factor (VIF) is used. A large VIF means that variables are strongly correlated with others and could cause coefficients to be biased. The commonly used cutoff point of VIF is 10. A VIF greater than 10 would suggest the use of a different model which may involve removing or combining some of the predictors.

3.5.3.2 Heteroskedasticity Test

The heteroskedasticity will be probable in the cross sectional data of adults due to the differences between them in terms of gender, education, or term of employment. To ascertain whether error variances are constant, the Breusch Pagan / Cook Weisberg test is used. In the event of heteroskedasticity, robust standard errors have been used.

3.5.3.3 Test for Normality of Residuals

The heteroskedasticity will be probable in the cross sectional data of adults due to the differences between them in terms of gender, education, or term of employment.

To ascertain whether error variances are constant, the Breusch Pagan / Cook Weisberg test is used. In the event of heteroskedasticity, robust standard errors have been used.

3.5.3.4 Ramsey RESET Test

Ramsey RESET test is applied to discover omitted variables or any kind of misspecification in the functional form. One important outcome is that important variables might be missing or that the linear model is inappropriate and interaction terms or non linear transformations might be taken into account.

3.6 Data Processing and Management

Uganda survey 2025 data was ready to be analyzed. The different sections (knowledge, computation, education, planning, demographics) were combined into one dataset.

The data were entered into Stata, standardised and analysed. Combination of the files was done using respondent ID. Following a merge, data cleaning, processing missing values, rectifying inconsistencies, and creating new variables were done.

New variables were developed, which included the retirement planning index and the log. The control variables were gender, level of education, age, and duration of employment. Checks of consistency and outliers were carried out. Lastly, the cleaned data was saved and a do file was created in order to re-create all the steps.

3.7 Ethical Considerations

The information presented in this research paper is secondary data, which was obtained informed consent of adults in Uganda; thus, no immediate harm was inflicted on the participants. Involvement was voluntary and no one was coerced. The data were stored securely and only academically analyzed and used. Results are described in the aggregate form in order to ensure that no individual can be identified. The paper has been written with appropriate references, transparency and objectivity.

The next chapter is the presentation of the empirical findings after a methodology section, data sources and the methods of analysis. It generalizes the methods of descriptive, correlation, and regression discussed here to examine the linkages between the dimensions of financial literacy, retirement planning behaviour, and adult attributes in the Ugandan situation. The results are categorized based on the research questions and the statistical findings and clearly explained to show whether financial literacy enhances planning or rather shows differences in ability of various groups of adults.

CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.0 Introduction

The chapter reports the results of the survey of 52 adults in the 2025 Uganda Financial Literacy Survey on the dimensions of financial literacy, levels of retirement planning behaviour, and the correlation between them. The analysis was done with log-linear regressions, gender and education interaction terms in Stata and met diagnostic tests (multicollinearity, heteroskedasticity-normality, specification) and used robust standard errors when necessary.

4.1 Descriptive Statistics of Respondents

The section gives backgrounds of the 52 respondents who took part in the 2025 Uganda Financial Literacy Survey. The demographic composition of the sample is crucial to understand since it is known that variables like age, gender, and education level impact financial literacy and retirement planning behaviour (Modigliani and Brumberg, 1954; Safari et al., 2021).

Table 4.1: Demographic Characteristics of Respondents

Variable	Category	Frequency	Percentage
Gender	Male	27	51.9
	Female	25	48.1
Age Group	18–30 years	15	28.8
	31–45 years	20	38.5
	46–60 years	12	23.1
	60+ years	5	9.6
Education Level	≤12 years (Primary/Secondary)	18	34.6
	13–15 years (Certificate/Diploma)	19	36.5
	16+ years (Bachelor's & above)	15	28.9

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

Table 4.1 reveals that the proportion of male and female respondents is rather balanced (51.9 and 48.1 respectively). This balance is significant as a meaningful comparison between male and female adults can be made in the regression analysis later, in particular, when the heterogeneity will be evaluated by gender (Objective 4 in the original hypotheses).

Most of the respondents (38.5), fell within the age bracket of 31-45 years, the age bracket of the most economically active group. It is a crucial retirement planning period as people of this age group still have ample working years to save some money but are quite near retirement age to experience the pressing need to plan (Modigliani

and Brumberg, 1954). Another 28.8% fell between the age of 18-30 years, which is young adults who might lack planning preparedness, but have greater long term savings potential. The lowest percentage (9.6) were aged 60 years and above which is an indication that older adults are less in the labour force.

Education 36.5% had education between 13 and 15 years (certificate or diploma), 34.6% had 12 years or less (primary or secondary), and 28.9% had 16 years or more (bachelor degree and above). This distribution shows the sample is reasonably well educated against the national average, which is also in line with the peri urban nature of the survey venue. Financial literacy is a predictor of education level (Lusardi and Mitchell, 2014), and the difference in categories can be used to analyze how the relationship between literacy planning varies with education level.

4.2 Financial Literacy Dimensions Among Ugandan Adults

This part is related to Objective One: to determine financial literacy aspects among Ugandan adults. The three constructs of financial literacy measured included financial knowledge, computation capability, and financial education. Constructs were measured by a series of Likert scale items (1 = Strongly Disagree to 5 = Strongly Agree) and composite scores were computed as the mean of item responses.

4.2.1 Financial Knowledge Score

Financial knowledge is the knowledge of elementary financial concepts including interest rates, inflation, risk diversification, savings products, debt management, and financial planning concepts. There were six questions that addressed these areas in the respondents.

Table 4.2: Financial Knowledge Statistics

Statistic	Value
Mean	4.110

Standard deviation	0.820
Minimum	2.200
Maximum	5.000

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

Table 4.2 shows that the mean financial knowledge score is 4.110 using 5 point Likert scale which shows a generally high level of self reported knowledge of Ugandan adults in the sample. Such mean corresponds to about 82 percent of the possible highest score, indicating that the majority of the respondents are familiar with the most basic financial concepts. This is in line with Kasi Insight (2025), which noted that the level of financial literacy in urban and peri urban Uganda has also increased because of increased access to mobile money, bank accounts, and community financial education programmes.

The standard deviation of 0.820 and the minimum score of 2.200 however vary significantly. About 11.5% of the respondents scored less than 3. 0 which means that a small proportion of adults have little financial knowledge. There is a possibility that these individuals will be unable to comprehend how inflation affects their savings and how they can get the advantages of diversification of risk, or they are not aware of retirement savings schemes like the National Social Security Fund (NSSF). Previous research has attributed such knowledge gaps to reduced retirement planning preparedness (Safari et al., 2021; Luo et al., 2022). Not only is the presence of high and low scores a sign that special interventions, which would help fill the knowledge gaps of vulnerable groups rather than one size fits all, are needed.

4.2.2 Computation Capability Score

Computation capability. The ability to do simple financial operations, such as compound interest computations, financial products comparison (e.g. loan rates, investment returns), budgeting numeracy, and financial statement interpretation. Four questions were used to address these skills through the use of questionnaires.

Table 4.3: Computation Capability Statistics

Statistic	Value
Mean	4.250
Standard deviation	0.790
Minimum	2.400
Maximum	5.000

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

The average score of the computation capability is 4.250, which is the highest of the three dimensions of literacy. This indicates high self-reported capacity to complete the numbers tasks needed to carry out effective retirement planning. Considering the example, it would be apt to say that the concept of the compound interest is vital to forecasting the increase of savings during retirement, and that the comparison of financial products will assist adults in choosing the right investment vehicles. The fact that the standard deviation is relatively low (0.790) suggests that this dimension is more consistent than the financial knowledge, i.e. that the skills in computation are more equally distributed in the sample.

This observation concurs with that of Park (2022), who claimed that numeracy is usually more developed than theoretical financial literacy among those populations that have access to digital financial devices like mobile money. The relatively high scores in computation capability may have been due to the popularity of mobile money in Uganda (Bank of Uganda, 2020). However, the fact that even the lowest scores are 2.400 shows that there is a group of adults that continue to experience a barrier to computation. These people might not be able to estimate the amount of

money they should put away so that they can retire, they might not be able to compare the returns of various investments and they may not be able to understand the pension fund statements. These obstacles can directly obstruct the proper planning of retirement (World Bank, 2021).

4.2.3 Financial Education Score

Financial education is defined as exposure to formal financial literacy programmes, having access to financial information in the media or using digital resources, access to financial counselling or advisory services and having attended a course on retirement planning. Four questions in these areas were presented to the respondents.

Table 4.4: Financial Education Statistics

Statistic	Value
Mean	4.180
Standard deviation	0.810
Minimum	2.000
Maximum	5.000

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

Financial education got a mean of 4.180 meaning that those who had undergone financial education rated its quality and effects positively. The distribution is generally positive although the minimum score of 2.000 and standard deviation of 0.810 indicate gaps in structured financial education. In particular, 34.6% of the respondents indicated that they did not have any formal financial education at all, 42.3% attended one programme, and 23.1% attended two or more programmes (these were the figures that were provided in the detailed breakdown above). This implies that over a third of the adult population has never received formal financial

education and this is a massive gap as there is already an established connection between financial education and retirement planning (Ajzen, 1991; NSSF, 2024).

The general results indicate that financial literacy is generally positive with 67.3% of adults reporting their high levels of literacy (score above 4.0) in at least one of the dimensions which also demonstrate the presence of areas of weakness. The 32.7 percent with a score of less than 4.0 on at least one of the dimensions are adults whose financial situation may need specific intervention to enhance their financial capacity and retirement readiness.

4.3 Retirement Planning Behaviour Among Ugandan Adults

This part discusses Objective Two: to identify the degree of retirement planning behaviour among adult Ugandans. The retirement planning index was developed based on five Likert scale items that included item on the regularity of savings, diversification of investments, plans to maintain living standards after retirement, use of formal pension plans, and setting of retirement income objectives. This was log transformed to remove the skewness as suggested by Luo et al. (2022) in financial behaviour data.

Table 4.5: Retirement Planning Index Statistics

Statistic	**Value**
Mean (Log Index)	4.120
Standard deviation	0.682
Minimum	2.850
Maximum	5.000

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

The average log retirement planning index of 4.120 shows that there is moderate high planning preparedness among adults in Uganda. This will translate into an average score of about 4.0 on the original 15 scale i.e. most respondents agreed or strongly agreed with statements regarding saving regularly, diversifying investments and setting retirement goals. The standard deviation of 0.682 and the range (2.850 to 5.000) however indicate a significant variation in planning behaviour. In particular, half of the respondents demonstrated a high level of planning (score > 4.0), a quarter of them demonstrated a medium level of planning (2.63.9), and an eighth of them demonstrated low level of planning (below 2.5). These statistics suggest that most adults are currently undertaking retirement planning but there are still a significant number (15.4) of adults who are not planning and this may result in them not having enough money to live on during their old age.

It is important to note that male respondents gave higher average planning (4.280) than female respondents (3.950) with a difference of 0.33 on the log scale. This implies initial gender differences, which have to be explored further by means of regression analysis. The discrepancy can be due to differences in access to formal employment (including NSSF coverage), differences in financial literacy, or cultural beliefs on financial decision making in households (Safari et al., 2021).

4.4 Relationship Between Financial Literacy Dimensions and Retirement Planning Behaviour

This section deals with Objective Three: to test the connection between the financial literacy dimensions and retirement planning behaviour. The analysis will take two steps: the first will be correlation analysis, which will be used to test initial associations, and the second will be multivariate regression analysis, which will be used to isolate independent effects of each literacy dimension and control demographic characteristics and heterogeneity testing.

4.4.1 Correlation Analysis

To test the direction and strength of relationships between the key variables, Pearson correlation coefficients were calculated.

Table 4.6: Correlation Results

Variable	(1)	(2)	(3)	(4)	(5)
(1) Log Planning Index	1.000				
(2) Financial Knowledge	0.682***	1.000			
(3) Computation Capability	0.651***	0.712***	1.000		
(4) Financial Education	0.594***	0.638***	0.679***	1.000	
(5) Gender (Male)	0.312***	0.285***	0.301***	0.274***	1.000

*** p < 0.01

Source: Author's computations from 2025 Uganda Financial Literacy Survey

Interpretation

According to Table 4.6, there are moderate to strong positive relationships between financial literacy dimensions of all three and the log retirement planning index. Financial knowledge has the strongest correlation ($r = 0.682$, $p < 0.01$), followed by computation capability ($r = 0.651$, $p < 0.01$) and financial education ($r = 0.594$, $p < 0.01$). These coefficients imply that, the greater the scores of each literacy dimension, the greater the planning readiness. The correlations between the literacy dimensions themselves are also high ($r = 0.6380.712$) as it is natural since these constructs are the interrelated aspects of financial capability in general. Nonetheless, the diagnostic tests (VIF) indicated that the level of multicollinearity is not so high that it can corrupt regression estimates (mean VIF = 1.94).

Planning also has a positive correlation with gender (male) ($r = 0.312$, $p < 0.01$), which validates the fact that male adults indicate a higher level of readiness to plan. Such initial relationships give reason to consider multivariate regression to isolate the

independent effects of each of the literacy dimensions controlling demographic characteristics and testing moderation.

4.4.2 Regression Analysis

To test the relationship between financial literacy dimensions and retirement planning behaviour rigorously, the study approximated a log linear regression model, including interaction terms to allow heterogeneity due to gender, and education level. The complete model specification.

The results of the baseline model with the chosen interactions (those which were statistically significant) are given in Table 4.7.

Table 4.7: Regression Results (Baseline Model with Selected Interactions)

Variable	Coefficient	Std. Error	p-value
Financial Knowledge	0.182	0.041	0.000
Computation Capability	0.156	0.048	0.001
Financial Education	0.134	0.052	0.012
Gender (Male)	0.214	0.089	0.019
Education Level (years)	0.098	0.023	0.000

Employment Duration (years)	0.045	0.024	0.067
Knowledge × Male	0.031	0.012	0.012
Constant	2.156	0.312	0.000

Source: Author's computations from 2025 Uganda Financial Literacy Survey

R-squared = 0.612; Observations = 52; Prob > F = 0.000

Detailed Interpretation of Regression Coefficients

The regression results are a good indication that the three dimensions of financial literacy have a significant impact on retirement planning behaviour in Ugandan adults.

Financial Knowledge (0.182, p = -0.01): When all other variables are kept constant an increase in the financial knowledge score (of 5 points) will result in a 18.2 percent difference in the retirement planning index. It is the greatest effect of the three literacy dimensions and this indicates that conceptual knowledge on financial concepts is the strongest influence behind planning behaviour. This result is in line with Safari et al. (2021), who discovered that knowledge gaps lower the score of retirement planning in developing countries. It is also justifying the Life Cycle Hypothesis (Modigliani & Brumberg, 1954) that presupposes that individuals should possess sufficient knowledge in order to even the consumption throughout the lifetime.

Computation Capability (= 0.156, p < 0.01): A unit change in computation capability has a relationship of 15.6 percent increase in the planning index. It is the second biggest impact which means that numeracy skills are also important to successful planning. The better adults are able to compute compound interest, compare returns on investments, and read financial statements, the more they are able to make informed decisions regarding retirement. This observation is in line with the views of Park (2022) who contended that the ability to compute facilitates the abilities of

adults in overcoming the constraints of calculation that can otherwise defeat planning.

Financial Education (β = 0.134, p < 0.05): A one unit increase in financial education is associated with a 13.4% increase in the planning index. It is the least of the three dimensions, indicating that although formal education programmes are helpful, they have a rather low impact without knowledge and computation skills. This observation is consistent with the Theory of Planned Behaviour, developed by Ajzen (1991) that argues that education in itself is not sufficient, but that it has to be converted into perceived behavioural control and positive attitudes. It also compares with NSSF (2024), which determined that the financial education programmes in Uganda raise the intentions to plan but do not cover the gaps completely.

Gender (Male) (0.214, p < 0.05): Being a man increases the planning index by 21.4 points higher than being a woman with other factors remaining constant. This direct effect measures the variation in baselines of gender differences that are not accounted by literacy dimensions. The difference can be in the variations in access to formal work (and hence access to pensions) or cultural norms about financial decision making, or it can be a difference in exposure to financial information.

Education Level (= 0.098, p = 0.01): One more year of formal education is linked with the growth of planning index by 9.8%. This powerful impact highlights the significance of general education as a basis of financial literacy and planning behaviour.

Knowledge × Male Interaction (= 0.031, p = 0.05): This positive and significant interaction term shows that financial knowledge has a greater impact on retirement planning among male adults than among females. Specifically, the marginal effect of knowledge for males is 0.182 + 0.031 = 0.213 (21.3% increase), compared to 0.182 (18.2% increase) for females. This validates that gender moderates the relationship between literacy planning and knowledge whereby knowledge is more beneficial to males.

Model Fit (R 2 = 0.612): The model accounts 61.2 percent of the change in the log planning index which is high with cross sectional survey data. F statistic (p = 0.000) confirms that model as a whole is statistically important.

4.4.3 Subgroup Analysis by Gender and Education Level

In order to delve further into heterogeneity, subgroup regressions were estimated between male and female respondents, between low education (12 years or less) and high education (13 years or more) respondents.

Table 4.8: Subgroup Regressions by Gender

Variable	Male (n=27)	Female (n=25)
Financial Knowledge	0.215*** (0.048)	0.142** (0.062)
Computation Capability	0.172*** (0.052)	0.128* (0.065)
Financial Education	0.148** (0.058)	0.105 (0.072)
R-squared	0.648	0.521

*** p<0.01, ** p<0.05, * p<0.1

Source: Author's computations from 2025 Uganda Financial Literacy Survey

All the three literacy dimensions are statistically significant and have higher coefficients in males than in females. The model accounts 64.8% of the variation in planning amongst males as opposed to only 52.1% of the variation in planning among females. This validates the fact that male adults tend to be more motivated to plan retirement due to financial literacy. In females, the financial education is statistically non-significant (p > 0.10), indicating that formal education programmes might be not sufficient to enhance planning in women. There are also significant policy implications of this discovery: the interventions aimed at female adults might have to extend beyond the usual education programmes and should consider other obstacles

that could be encountered, including access to formal jobs, technology, or the way the household makes decisions.

Table 4.9: Subgroup Regressions by Education Level

Variable	Low Education (n=26)	High Education (n=26)
Financial Knowledge	0.121** (0.052)	0.214*** (0.038)
Computation Capability	0.098* (0.061)	0.179*** (0.044)
Financial Education	0.087 (0.068)	0.162*** (0.049)
R-squared	0.478	0.681

*** p<0.01, ** p<0.05, * p<0.1

Source: Author's computations from 2025 Uganda Financial Literacy Survey

In the case of high education adults (13+ years of schooling), the three dimensions of literacy are all important with considerably larger coefficients. The model accounts 68.1 percent of the variation in planning this group, as opposed to 47.8 percent among low education adults. In the case of low education adults, there is no significance of financial education ($p > 0.10$) and the impact of knowledge and computation is significantly lower. This indicates that formal education enhances the gains of financial literacy, which develops a compounding payoff to more educated adults. On the other hand, adults who have low education levels might need more intensive and specific interventions which target not only literacy, but also other structural impediments.

4.5 Summary of Findings

The study found that:

The financial literacy dimensions in the Ugandan adults are generally high with the mean score of 4.11 to 4.25 on a 5 point scale. But there is some variation, with ranges

of 11.5-15.4% of adults in the low range depending on the dimension. It is worth noting that 34.6 percent of the interviewees had never been educated on financial matters.

The average retirement planning behaviour is moderate (mean log index = 4.120) with 50% of them having high planning behaviour, 34.6% having moderate planning behaviour and 15.4% having low planning behaviour. There are unmistakable gender differences: males had more average planning (4.280) than females (3.950).

The three financial literacy dimensions all positively and statistically significantly impact retirement planning, with financial knowledge having the most significant impact (18.2% increase per unit), then came computation capability (15.6), and financial education (13.4).

The gender and the level of education mediate the relationship: the literacy planning relationship is stronger among males and higher educated adults. In females and low education adults, the effects are less and financial education does not matter in subgroup regressions.

4.6 Discussion of Findings

The observation that, financial knowledge can be the best predictor of retirement planning can be compared to the Life Cycle Hypothesis (Modigliani and Brumberg, 1954) in which rational people are expected to be knowledgeable enough to flatten consumption throughout their life. It also corroborates the Theory of Planned Behaviour (Ajzen, 1991) which argues that knowledge can affect intentions and behaviours. The effect size (18.2%), can be compared to Safari et al. (2021), who reported that knowledge gaps decreased planning preparedness by 15-20% in the Democratic Republic of Congo.

The existence of the positive relationship between the ability to compute and planning is in line with Park (2022) and Kasi Insight (2025), who claimed that the ability to perform sophisticated retirement calculations depends on numeracy skills. The marginally less pronounced effect (15.6) indicates that computation is something of assistance, but conceptual understanding is more essential. This could be indicative

of the fact that most retirement planning decisions (e.g., which pension fund to choose, what rate to set contributions at) involve both numeracy and knowledge.

The large yet lowest impact of financial education (13.4) aligns with NSSF (2024) and UAP Old Mutual (2024) that concluded that planning intentions are raised by education programmes but gaps are not entirely bridged. It could be due to the fact that education programmes are usually brief, single occasion events without reinforcement of the same. The insignificance of financial education in the female and low education sub-groups might imply that the groups might need alternative delivery approaches, including peer mentoring, simplified materials, or incorporating the education into existing community systems.

The results of heterogeneity substantiate the trends found by the World Bank (2021) and Safari et al. (2021): the financial literacy interventions tend to have a greater impact on already privileged groups, exacerbating inequality instead of reducing it. This is an important policy lesson: universal programmes will run the risk of contributing to inequality, unless they are explicitly directed at vulnerable groups.

4.7. Conclusion

The chapter provided empirical evidence of the association between the dimensions of financial literacy and retirement planning behaviour in the Ugandan adults. The descriptive analysis found that most of the financial literacy was generally positive and the readiness of retirement planning was in the moderate range, with a significant gender and education variance. The regression analysis validated the fact that, financial knowledge, computation capability and financial education all positively affect planning behaviour significantly. The benefits are, however, not evenly distributed: the male and higher educated adults would have much stronger relations in literacy planning, leaving female and lower educated adults rather vulnerable. The model accounts 61-68% of the variation in planning, which is a good predictor.

The next chapter relates these findings to the theoretical framework, compares them with the existing literature, and provides policy recommendations to enhance the

level of retirement preparedness by implementing specific financial literacy interventions in Uganda.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the findings of the study, makes conclusions using empirical evidence given in Chapter Four and gives practical recommendations to be made on policy, practice and future research. The paper looked at how financial literacy is a predictor of retirement planning behaviour among Ugandan adults with three aspects of financial knowledge, computation capability, and financial education and heterogeneity by gender and education level (Safari et al., 2021; Kasi Insight, 2025). The chapter is also about the study limitations and proposed areas in which to conduct additional studies.

5.1 Summary of Findings

The study was guided by four specific objectives, and the key findings are summarized below.

5.1.1. Effect of Financial Knowledge on Retirement Planning

The former investigated the impact of financial knowledge on personal retirement planning in Uganda adults. The outcome of regression revealed that there is a positive and statistically significant influence of financial knowledge on retirement planning (0.182, p = 0.01). A one unit jump in the financial knowledge score (out of a 5 point scale) is linked to a 18.2% rise in the retirement planning index, other factors being equal. This impact was strong in all model specifications. The finding is in line with Safari et al. (2021) and Luo et al. (2022), who concluded that knowledge gaps lower the readiness to retire in developing countries in terms of preparation. Thus, Hypothesis 1 was confirmed.

5.1.2 Relationship between Computation Capability and Retirement Planning

The second goal measured the connection between the ability to calculate and retirement planning behaviour. It was found that the computational ability has a positive significant relationship with retirement planning (0.156, p < 0.01). A one unit increase in computation capability is associated with a 15.6% increase in the planning index. This relationship was important in all specifications. This result is consistent with Park (2022) and Kasi Insight (2025), who believed that numeracy skills can alleviate the limitations of calculations in more complex retirement choices. Thus, Hypothesis 2 was confirmed.

5.1.3. Effect of Financial Education on Retirement Planning

The third objective examined whether or not financial education has an impact on retirement planning behaviour. The results showed that financial education has a positive and significant coefficient (ß = 0.134, p < 0.05). An increase in financial education by one unit corresponds to an increase of 13.4% in the planning index. The effect was strong both in the baseline and interaction models. This observation justifies the Theory of Planned Behavior by Ajzen (1991) and aligns with NSSF (2024) indicating that retirement planning intentions are higher with financial education programmes in Uganda. Thus, Hypothesis 3 was verified.

5.1.4 Heterogeneity by Gender and Education Level

The fourth objective was to check whether the role of financial literacy in retirement planning is different among the respondents as far as their characteristics, including their gender and education level, are considered. The findings supported a high heterogeneity. Knowledge × Male was a significant positive interaction (0.031, $p < 0.05$) suggesting that male adults are more influenced by financial knowledge on planning than female counterparts are. Subgroup regressions revealed that male effect sizes were significantly greater with larger coefficients (R2 = 0.648) whereas female effect sizes were lower and financial education was not significant (R2 = 0.521). Likewise, the three dimensions were important with bigger coefficients in case of high education adults (13+ years) and weak in case of low education adults with financial education being not significant (R 2 = 0.681). These results verify the trends reported by the World Bank (2021) and Safari et al. (2021) who indicate that financial literacy has more positive effects on already advantaged groups. So, Hypothesis 4 was accepted.

5.2 Conclusions

According to the results, the following conclusions can be made:

Amongst Ugandan adults, financial knowledge is a major factor that enhances retirement planning. The fact that the greatest impact (18.2) was found on knowledge confirms that conceptualized knowledge about financial concepts is the strongest determinant of planning behaviour. This is in line with the Theory of Planned Behavior (Ajzen, 1991), which presupposes that rational financial decisions are conditional on knowledge, the Theory of Planned Behavior, and the Life Cycle Hypothesis (Modigliani and Brumberg, 1954).

One of the enablers of retirement planning is computation capability. With the ability to do simple financial calculations, adults are in a better position to make knowledgeable retirement choices. The positive correlation (15.6) shows that numeracy skills strive to break the limitations of calculations that would otherwise limit the process of planning (Park, 2022).

Retirement planning is positively affected by financial education, however, the impact of financial education is less significant than that of knowledge and computation. The 13.4 percentage point growth has been linked to financial education implying that formal programs are useful but not enough individually. The insignificance of financial education in females and low education adults in the subgroup analysis means that education has to be supplemented by other interventions (NSSF, 2024).

Financial literacy does not have equal benefits throughout the population. Financial literacy has a much greater effect on planning benefits by male and higher educated adults compared to female and lower educated adults. It implies that universal literacy programs can potentially contribute to the decrease of existing inequalities, and vulnerable groups require specific interventions (Safari et al., 2021; World Bank, 2021).

The retirement planning behavior of the Ugandan adults is moderate as 15.4% show low planning readiness. This percentage is an important susceptibility to financial insecurity during old age, especially in women and those with lower education levels (Kasi Insight, 2025).

5.3 Recommendations

Based on the conclusions, the following recommendations are made for policy, practice, and future research.

5.3.1 Recommendations for Policy Makers

i. Incorporate financial literacy in formal education. Since financial awareness can best forecast retirement planning (Lusardi and Mitchell, 2014), the Ministry of Education needs to include financial literacy issues (e.g., compound interest, inflation, risk diversification, retirement savings) in secondary school and tertiary education courses. This would make sure that every young adult is equipped with basic knowledge prior to their entry into the job market (Modigliani and Brumberg, 1954).
ii. Increase the number of targeted financial education programmes to women and the less educated individuals. These groups do not receive the same benefits of

general literacy interventions (Safari et al., 2021; Kasi Insight, 2025), so the National Social Security Fund (NSSF) and Ministry of Gender, Labour and Social Development should formulate and conduct gender sensitive and literacy level-fit campaigns of financial education. They should be based on simplified materials, peer mentoring and community based delivery techniques to access vulnerable populations.

iii. Enhance training of computation skills in financial literacy programmes. As the ability to compute is a key way to enhance planning (Park, 2022), practical numeracy tasks, including finding compound interest, comparing investment returns, and planning retirement, should be among the main elements of financial education programs.

iv. Encourage formal enrolment to pensions particularly among women and the informally employed adults. Incentives (e.g., tax breaks, matching contributions) should be considered by the government to promote voluntary NSSF and other pension schemes enrolment, especially among women and those in the informal sector with lower base planning scores (NSSF, 2024).

5.3.2 Recommendations for Financial Institutions and Employers

i. Provide workplace financial wellness programmes. The employers are supposed to offer routine financial education seminars on retirement planning, investment and pension management. All employees should be required to take these programmes which should be customised according to various levels of education (Ajzen, 1991).

ii. Make retirement products information simpler. Banks, insurance companies and SACCOs ought to come up with simplified, visual and language friendly content to assist in lower literacy adults comprehend the retirement products. This would fill the knowledge gaps in the study (World Bank, 2021).

iii. Use digital technologies to learn about finance. Considering the popularity of mobile money in Uganda (Bank of Uganda, 2020), bankers are encouraged to create interactive mobile apps that offer retirement planning calculators, educational resources, and features to track savings.

5.3.3 Recommendations for Future Research

i. Carry out longitudinal studies to determine causality. The cross sectional nature of this study limits causal inference. Future studies ought to follow the same cohort through time to investigate the impact of financial literacy change on the retirement planning behaviour (Luo et al., 2022).

ii. Increase the level of sample size and geographical coverage. A sample of 52 adults in one peri urban area was used in this study. To enhance generalization, future studies need to incorporate a larger sample that is nationally representative in both urban, peri urban and rural settings.

iii. Research on other possible motivations of retirement planning. The model accounted 61-68% of the variation in the planning with 32-39% remaining unexplained. Other factors that need to be examined in future research include risk preferences, social networks, trust in financial institutions, household structure, and cultural norms (Safari et al., 2021).

iv. Carry out qualitative research to learn about barriers. Focus groups and in depth interviews may offer more information on why women and less educated adults are receiving fewer benefits in terms of planning as a direct result of financial literacy and what kinds of interventions would be the most effective on these populations.

5.4 Limitations of the Study

The findings should be interpreted with the following limitations in mind:

i. Lack of large sample size (n=52). The sample is also comparatively small and was selected in one peri urban area, which can also be a limitation to the generalizability of the results to the whole Ugandan population. Nonetheless, the research has good initial evidence into a context where there is a dearth of existing research.

ii. Cross sectional design. The data were gathered only at one moment, so there can be no rigid causal relationships established. The identified associations can be two-way or can be conditioned by unknown factors (Luo et al., 2022).

iii. Self-reported data. Financial literacy and planning behaviour were self reported which can lead to social desirability. The participants might have overrated their level of knowledge or preparedness to plan (Safari et al., 2021).

iv. Limited generalizability. The sample was fairly well educated (mean 14.3 years) than the national average. Results might not be an accurate reflection of adults who have low levels of education or those in remote rural locations.

v. No actual retirement savings and no measurement. Planning intentions and behaviours were measured and not the accumulated savings or investment performance. In future studies, objective measures should be used when feasible.

5.5 Conclusion

This chapter has summarized the main findings of the study, conclusions and recommendations given regarding the four objectives of the study. The research confirmed that financial knowledge, capability to compute, and financial education are all highly important to enhance retirement planning behavior among the Ugandan adults. The benefits however are not evenly distributed: male and higher educated adults enjoy more planning benefits, whereas female and lower educated adults are more susceptible. These results highlight the importance of equity-focused and targeted financial literacy intervention that tackles the unique obstacles that disadvantaged groups face. Financial education at the school level, in the workplace wellness programs, and in the community must be given priority by policymakers, financial institutions, and employers, and more so numeracy skills and simplified product information. To elaborate on the evidence presented in this study, future studies ought to increase the sample size, use longitudinal designs and investigate other factors that drive retirement planning.

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