

Knowledge is Not Enough: Financial Capability, Behavioural Gaps, and Retirement Security in Kenya's Evolving Pension System

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ABSTRACT

Pension systems are in place to offer financial security during retirement, but retirement security is still a significant issue in policy. Financial literacy has been extensively advocated as a tool to better the outcomes of retirement, however, there is evidence that financial knowledge is not always followed by positive financial behaviour. The study investigated the financial literacy and economic security of the Defined Benefits Scheme (DBS) members under the National Treasury in Kenya as well as implications of the study findings for financial capability building and pension reform. This study used descriptive-survey research design, correlational and explanatory type. The population was a sample of 400 pensioners and in services civil servants who are members of the Defined Benefits Scheme and were obtained by stratified random sampling. Structured questionnaires and interview guides were used for the collection of primary data. Descriptive statistics, Pearson correlation analysis and Multiple regression analysis were used to analyse data by using the Statistical Package for Social Sciences (SPSS). Results showed respondents to have a moderate to high financial awareness and financial knowledge. However, implementation of financial practices like budgeting, regular saving, debt management, investment planning, and emergency preparedness were relatively low. The significant and positive correlations between the dimensions of financial literacy and the economic security were found in correlation analysis. The regression analysis showed that 41.4% of the variance in economic security could be accounted for by financial literacy. While financial education had positive impacts, many respondents still expressed low preparations for retirement, level of financial independence and financial resilience. The study shows that there is a substantial knowledge-behaviour gap amongst Defined Benefits Scheme members and suggests that financial capability goes beyond financial literacy when it comes to providing an understanding of retirement security. The results indicate that pension design is not the only factor that will shape Kenya's changing pension system's effectiveness and that financial ability of pension scheme members is an important factor. The study calls for increased financial capability programmes, linking financial education with behavioural interventions and financial education and planning for retirement to be linked to the overall economic transformation agenda in Kenya.

Keywords: *Financial Capability, Financial Literacy, Economic Security, Pension Reform, Retirement Planning, Defined Benefits Scheme, Kenya.*

INTRODUCTION

1.1 Background

Pensions are in a state of transformation around the globe as governments aim to ensure retirement security without compromising the future of their finances. The growth of life expectancy, transformation of the labour market, population ageing and growing pension liabilities have been putting a strain on traditional Defined Benefits (DB) pension schemes. As a result, several countries have introduced pension reforms that shift more responsibility for retirement planning onto the individual via Defined Contribution (DC) and hybrid pension plans (OECD, 2022).

The reforms have transformed the connection between people and retirement security. Conventional Defined Benefit schemes can result in a guaranteed level of retirement income, which is largely fixed, while employers

or governments will assume the risk of the investments. Defined Contribution plans, on the other hand, leave the individual to choose on contribution amounts, investment choice, risk management, and withdrawal amounts at retirement. As a result, retirement prospects are more dependent on the capacity of people to make good financial choices during their working years.

In this evolving pension landscape, financial literacy is proving to be a key influence on retirement readiness and economic welfare. Most commonly, financial literacy is defined as the understanding, knowledge and awareness needed to make informed financial decisions. Previous research has consistently shown positive correlations between financial literacy and retirement planning, saving behaviour, and financial wellbeing (Lusardi & Mitchell, 2014). New insights from behavioural finance, however, have led to the general conclusion that financial literacy is not enough to ensure positive financial outcomes. People may know things about money, but do not act on their knowledge in ways like budgeting, saving, investing, and planning for retirement (Thaler & Sunstein, 2008; Kahneman, 2011).

This separation has helped promote the notion of financial ability. Financial capability is about applying financial knowledge effectively: it's about competence, confidence, willingness and self-control, and goes beyond financial literacy, which is mainly about knowledge and understanding. Financial capability can thus be seen as a broader lens to explain the varying financial outcomes between people who have similar levels of financial knowledge (OECD, 2022).

This is pertinent to the case of Kenya where pension reforms are going on to emphasize expansion of retirement coverage, sustainability and greater participation in contributory retirement programs. Meanwhile, the Government of Kenya's Bottom-Up Economic Transformation Agenda (BETA) underscores the significance of savings mobilization, financial inclusion, enterprise development, wealth creation and household economic resilience to sustainable economic growth (Republic of Kenya, 2023). In order to achieve both these goals, not only is access to financial products and pension schemes necessary but the capacity to effectively use the products is also needed.

Although there are pension schemes in place to support financial security in retirement, many retirees still face financial challenges due to a lack of savings, inflation or dependency demands, investment failures or low levels of retirement readiness. Questions about the effectiveness of financial literacy in advancing financial security and the linkage of financial knowledge to financial actions are at the forefront of these challenges.

In this light, this study explores the financial literacy and economic security levels of the Defined Benefit Scheme members of the National Treasury in Kenya. Most importantly, it highlights the knowledge-behaviour gap that exists among Kenyan members of pension schemes, and the implications of the results for financial capability building and the Kenyan pensions system.

1.2 Problem Statement

The purpose of pension systems is to ensure that people are free from financial insecurity when they retire and have an income to support them. But it is apparent from both developed and developing countries that many retirees are still living in poverty despite having been a member of a pension scheme. Financial concerns like lack of retirement savings, increasing living costs, inflation, healthcare expenses, dependency burden and financial decision making continue to have a negative impact on the wellbeing of retirees and pension beneficiaries (ILO, 2021; OECD, 2022).

Pension reforms in Kenya have been on the three themes of increasing pension coverage, bolstering pension benefits, and enhancing sustainability of pension benefits. Concurrently, the Government's Bottom-Up Economic Transformation Agenda (BETA) calls for financial inclusion, economic resilience, the growth of wealth and household savings as crucial factors of sustainable development (Republic of Kenya, 2023). Nevertheless, a large number of both current retirees and those who are soon to retire are still concerned about retirement preparedness and long-term financial security.

There is a large and growing body of literature that shows that financial literacy has a positive impact on

retirement planning and economic well-being. As such, financial education programmes have become a growing focus to enhance retirement outcomes. But as there is increasing evidence in behavioural finance of this, knowledge of finance does not always lead to positive financial behaviour. People often grasp financial concepts without engaging in behaviors like saving regularly, budgeting, smart investing, and planning for retirement (Kahneman, 2011; Thaler & Sunstein, 2008).

This financial knowledge-behaviour gap is a key pension policy concern. However, if people have financial literacy, but are still economically disadvantaged, then these interventions will not be enough to make a significant dent in their retirement security. The challenge is made even more acute as pension policies increasingly move towards one in which there is a greater expectation for individual responsibility for retirement planning, saving, and investment.

While some research has studied financial literacy and retirement outcome, few studies have looked at whether financial knowledge is related to financial behaviour and economic security among individuals participating in public pension schemes in developing countries. In addition, there is limited empirical evidence on the consequences of such behavioral gaps to the evolving pension market in Kenya.

The study therefore aims to investigate the relationship between financial literacy and economic security of the Defined Benefits Scheme members under National Treasury in Kenya. Specifically, the study examines if financial knowledge is linked to financial behaviour and what the implications of this are for the development of financial capability, retirement security, and future pension changes.

1.3 Purpose of the Study

The aim of this study was to explore the financial literacy level and its association with economic security for the members of the Defined Benefits Scheme (DBS) in the National Treasury, Kenya. In particular, the study aimed to evaluate how financial awareness, financial knowledge, financial attitudes and financial behaviour are related to pension scheme members' economic security.

Beyond examining the relationship between financial literacy and economic security, the study sought to explore the existence of a knowledge-behaviour gap among DBS members and consider the implications of this gap for retirement security and pension reform. In this way, the study joins the growing conversation around financial capability and emphasises the need to connect financial knowledge with financial behaviours to help promote economic wellbeing over the longer term.

1.4 Research Objectives

The study was guided by the following objectives:

- i. To determine the level of financial literacy among members of the Defined Benefits Scheme under the National Treasury in Kenya.
- ii. To examine the relationship between financial literacy dimensions and retirement planning among members of the Defined Benefits Scheme.
- iii. To evaluate the effect of financial literacy on the economic security of members of the Defined Benefits Scheme.
- iv. To explore the implications of the relationship between financial literacy, financial behaviour, and economic security for pension reform and financial capability development in Kenya.

1.5 Contribution of the Study

This study contributes to the literature on financial literacy, retirement security and retirement reforms in a number of ways.

Firstly, the study joins the body of knowledge on financial literacy and financial security. Although there has been a general finding that financial literacy has a positive relationship with retirement outcomes, most of the studies have concentrated on members of private pension schemes, especially in developed countries and in the

Kenyan context, financial literacy has not been studied that much for public pension scheme members in developing countries.

Second, this study builds on the existing literature by shedding light on the presence of a knowledge–behaviour gap among pension scheme members. While a fair amount of financial awareness and financial knowledge was reported, a significant number of respondents reported low levels of financial behaviours in the domains of budgeting, savings, planning investment, managing debts and preparing for emergencies. The results indicate that simply having financial knowledge does not ensure positive financial outcomes.

Thirdly, the study considers financial capability as a critical tool for understanding retirement security. While traditional financial literacy studies tend to be more about gaining knowledge, financial capability is about the capacity, confidence, motivation and discipline to use financial knowledge effectively. This study highlights the importance of not only knowing what to do, but doing it, in achieving economic security, and sheds light on the ongoing debates on financial capability and behavioural finance.

Third, the study has implications for policies on pension reform. Given that pension systems are increasingly making a focus on contributory systems and increased individual responsibility around retirement planning, knowing how financial literacy and financial behaviour relate to economic security is increasingly important. The results suggest that pension design is not the only factor that is important for the success of pension reform; member financial capacity also plays a role.

Lastly, the study adds to the national development discourse by connecting financial capability to the goals of the Kenya's Bottom-Up Economic Transformation Agenda (BETA). Financial capability can contribute to retirement security and broader economic development objectives through the promotion of saver mobilization, investment involvement, household resilience and the creation of long-term wealth.

Putting them all together, the study is more than a mere financial literacy study, and it is relevant to pension policy, behavioural finance, retirement security, and economic development.

LITERATURE REVIEW

2.1 Financial Literacy and Retirement Security

Because it plays a role in the long-term financial wellbeing and informed financial decision making, financial literacy has been gaining momentum in the research and policy agendas of researchers, policymakers and pension administrators. The OECD (2020) defines financial literacy as a set of awareness, knowledge, skills, attitudes and behaviours that enables an individual to make good financial decisions and ultimately reach financial wellbeing.

As people enter the world of money and investments, experience different economic climates and take on more responsibility for their own retirement, financial literacy has become an important issue in recent decades. Money-smart people are much better able to grasp financial concepts, look at investment opportunities, control risks, and plan for retirement.

Many studies have shown that financial literacy is positively associated with retirement outcomes. Lusardi and Mitchell (2014) identified that financially literate people tend to have planning for retirement, save more and have a higher lifetime wealth. In the same way, financial literacy is found to have a positive effect on investment participation and wealth accumulation by Van Rooij, Lusardi and Alessie (2011).

One of the reasons for the growing significance of financial literacy in pension systems is that the ability to make informed financial choices during working life is heavily influencing retirement outcomes. People who know about concepts like inflation, compound interest, diversification, and retirement planning are better equipped to plan for future financial goals and ensure their financial security in retirement.

Although these advantages, recent studies indicate that financial literacy does not necessarily ensure positive financial outcomes. The understanding and translation of financial knowledge into financial behaviour is, therefore, increasingly being the focus of research, as is the question of whether financial literacy ultimately leads to increased economic security.

2.2 From Financial Literacy to Financial Capability

Although financial literacy will continue to be a key topic, recent scholarship has been focusing on financial capability as a more expansive and holistic approach to financial wellbeing.

Financial literacy is mostly a knowledge, awareness, and understanding of financial concepts. Financial capability is about more than knowledge – it is about what can be done with knowledge, how much people are able to do with it, how confident with it they are, and how motivated and disciplined they are to do it – in practice (OECD, 2022).

This is significant because, given the same financial knowledge, people can show very different financial behaviours and outcomes. Some people use finances successfully by budgeting, saving, investing and planning for retirement, while others are not successful in putting what they know into practice.

The financial capability framework takes into account the psychological, behavioural, institutional and environmental factors affecting financial decisions. Increasing the financial knowledge alone is insufficient to improve financial outcomes; creating conditions that promote and support positive financial behaviours is equally important.

According to OECD (2022), financial capability is evolving as one of the most important factors to consider in today's pension systems because individuals are now expected to make more sophisticated choices in areas such as retirement savings, investment choices, risk management and retirement income planning. Therefore, the situation may be that financial capability is a better predictor of retirement security than is financial literacy.

2.3 Economic Security and Retirement Wellbeing

Economic security is the capacity of person to achieve, sustain, and tolerate a decent standard of living, financial obligations, financial shocks and financial independence during retirement. Economic security tends to be linked to having enough income, feeling ready for retirement, being able to weather financial shocks, and being able to manage unexpected costs.

Economic security is a key aspect of social protection and retirement wellbeing, according to the International Labour Organization (ILO, 2021). Economic security is not necessarily guaranteed by retirement income. Instead, there are several other determinants such as savings, investments, health expenditures, family size and composition, dependency demands, inflation, and overall economic status.

Earlier research has demonstrated that people with positive monetary actions have better economical outcomes. Good budgeting, consistent saving, wise investment choices, and prudent planning for retirement help to build financial resilience and boost retirement readiness.

Economic security is still a multi-dimensional issue, though, and goes beyond just pension participation. People can be vulnerable financially while still receiving pension benefits, because their savings is inadequate, they are not handling their money well, or because of outside economic factors. This implies that pension schemes are just part of a larger retirement security system.

2.4 Behavioural Finance and the Knowledge – Behaviour Gap

In the old economy theories, people are assumed to make optimal economic choices with the information they possess. But behavioural finance shows that financial decisions are often made by irrational thoughts, feelings, routines, and behaviors.

Kahneman (2011) maintains that people tend to make intuitive decisions that can result in poor financial decisions. Likewise, Thaler and Sunstein (2008) show that people often delay their responses, make it harder for themselves to make high-quality choices, and neglect to plan for the future when it comes to money.

The knowledge–behaviour gap is partly due to these behavioural tendencies. The knowledge–behaviour gap is when a person knows how to use their financial knowledge but is not using it consistently in practice.

This phenomenon has been observed in studies in various populations. Many people know that they should be saving for retirement, saving in case of emergencies, and investing wisely, but do not actually do these things. This means that financial knowledge doesn't always lead to financial wellbeing.

There are significant implications for pension systems and retirement policy when a knowledge–behaviour gap exists. Financial education programmes may not be very effective in behavioural change if financial knowledge is not enough to change the behaviour if they are not followed by behavioural interventions that encourage financial knowledge to be put into practice.

This study aims to further contribute to this perspective by looking at the existence of a knowledge–behaviour gap amongst members of Defined Benefits Scheme in Kenya and its impact on economic security.

2.5 Defined Benefits and Defined Contribution Pension Systems

There are typically two types of pension schemes: Defined Benefits (DB) and Defined Contribution (DC).

Defined Benefit schemes are ones that pay out a fixed amount of retirement benefits depending on things like retirement age, years of service and salary history. In these schemes, the employer or government will generally have most of the investment and longevity risk and responsibility for investment management.

Defined Contribution schemes, on the other hand, tie pension benefits to a person's contribution during their employment and the success or failure of the invested funds. In these setups, people have more to lose on investments and usually are more involved in retirement planning and investment decisions.

Reforms of pensions have been gradually moving towards a more contributory model globally, because of financial sustainability issues with Defined Benefits schemes (OECD, 2022). Such changes can enhance sustainability, but they also make financial skills more critical as the outcome of retirement will rely more on individual decisions about contributions, choice of investment products, and how they are accessed.

Financial readiness of pension scheme members has come into focus more and more in judging the success of pension reforms.

2.6 Pension Reform and Financial Capability in Kenya

The pension sector in Kenya has been a subject of extensive reforms, which have been implemented to enhance the level of retirement coverage, governance and the sustainability of pensions, and to broaden participation in retirement saving alternatives. Recent policy developments have focused on retirement planning, the importance of engaging in retirement plans voluntarily, and on financial inclusion more broadly.

The National Retirement Benefits Policy acknowledges the need for an improvement in retirement preparedness, increasing pension coverage and enhancing financial education among Kenyan workers and pensioners (Retirement Benefits Authority [RBA], 2024). Likewise, the Government's Bottom-Up Economic Transformation Agenda (BETA) highlights the importance of mobilising household savings, creating wealth, financial inclusion, and economic resilience as key pillars in the agenda of national development (Republic of Kenya, 2023).

The policy initiatives underscore the increasing role of financial capability in providing for retirement security and economic development. With greater individual participation and responsibility needed in pension systems,

financial capability becomes a key element for the individual to be able to manage their pension resources and make their own financial decisions.

The fast-rising pension assets and the high level of penetration of pension schemes in Kenya further emphasizes the importance of having pension members with both financial and behavioural skills and knowledge to secure long-term financial security.

2.7 Research Gap and Conceptual Positioning

Previous research has confirmed that financial literacy is linked to better retirement outcomes, but little has focused on the impact of financial knowledge on financial behaviour for public pension members in developing countries.

In addition, there is a lack of evidence on the consequences of behaviour gaps for pension reform in a context where individuals are increasingly responsible for making financial decisions about retirement. The vast majority of studies still focus on financial literacy and its predictive power on retirement rather than paying attention to the extent to which financial knowledge is turned into actionable financial actions.

This study aims to fill these gaps by exploring financial literacy and financial security among Kenya's Defined Benefit Scheme members, and by introducing the concept of financial capability as a general concept of wellbeing in retirement. The study is useful for highlighting the link between financial knowledge, financial behaviour and economic security, which has informed ongoing debates on financial capability, pension reforms and retirement security in the changing pension landscape in Kenya.

THEORETICAL FRAMEWORK

3.1 Life Cycle Hypothesis

Modigliani and Brumberg (1954) developed the Life Cycle Hypothesis (LCH) which is the main theoretical framework for understanding financial behaviour and retirement planning. Its theory is that people try to smooth their consumption over time by saving in their working years and then spending in retirement.

The Life Cycle Hypothesis suggests that the financial choices that an individual will make is driven by their lifetime income, not just their current income. While employed, people should save and invest for retirement. Retired people should expect that their accumulated savings and pension benefits will support their consumption and their standard of living.

The theory is that people with higher financial literacy are more likely to have an accurate assessment of future financial requirements, plan their retirement resources effectively and be more economically secure as a result. Financial Literacy is thus a key tool that can help people make informed choices about saving, investing and planning for retirement.

But critics of the Life Cycle Hypothesis state that the theory is based on the assumption of rational decision making and does not take into consideration the behavioural biases which often come into play within financial decisions. The financial knowledge in practice, however, can be strong but not enough if the person procrastinates, is present biased, has overconfidence, or has other competing financial needs. Thus, the theory's predictions of future financial behaviour are rarely observed in practice.

The results of the present study confirm this criticism. While a moderate to high degree of financial knowledge was seen across many respondents, relatively poor financial behaviours were noted in savings, budgeting, planning for investments and planning for emergencies. This implies that financial expertise might not be enough to realize the retirement goals envisioned by the Life Cycle Hypothesis.

In the context of this study, the Life Cycle Hypothesis supports the hypothesis that financial literacy should be a factor in achieving economic security, and also serves as a reminder of the importance of behavioural factors in understanding the link between financial education and successful retirement planning.

3.2 Expectancy Theory of Motivation

The theory of individual motivation and decision making on behaviour is called Expectancy Theory by Vroom (1964). The theory suggests that people perform a specific behaviour when they think that their behavior will produce desired results.

Expectancy theory states that there are three major components to motivation:

- i. Expectancy – believing that trying will lead to success.
- ii. Instrumentality – trust that their performance will lead to desired outcomes.
- iii. The worth of those outcomes – valence.

When it comes to financial behaviours, Expectancy Theory simply states that people will be more inclined to save, invest and plan for retirement if they think it will make them better off financially. On the other hand, those who lack any sense of financial planning having a significant role in economic security may not have an incentive to follow careful financial practices, even if they are knowledgeable about money.

The theory thus explains the knowledge–behaviour gap found in this study. Some people might know about financial concepts and be aware of the need to plan for retirement, but not necessarily do something about it because they are not motivated, confident or feel the activities of financial planning are beneficial.

This is a significant aspect of pension systems, as retirement planning often requires a deferred reward. People must sacrifice now, and make great investments, to receive rewards that may not be realized for years. Thus, the concepts of 'motivation' and 'behavioural commitment' become significant factors that influence retirement readiness.

The theory is used as a way to explain why the theory is being presented: that financial capability goes beyond learning about finance and the confidence and motivation to use financial knowledge consistently.

3.3 Goal Setting Theory

The goal setting theory (Locke & Latham, 1990) states that setting specific and challenging goals increase performance by concentrating attention, increasing effort and motivating persistence. The theory states that people who have defined goals will be more likely to engage in behaviours that will help them achieve the goal.

In personal finance, financial goals can be anything from debt reduction and investment plans to retirement savings or building wealth. People who set such goals are more likely to budget, save regularly, track their finances and plan for the future.

Goal setting theory builds on the Life Cycle Hypothesis and Expectancy Theory by focusing on the behavioural mechanism of the transformation of financial knowledge into financial behaviors. Financial literacy gives you information and understanding, financial goals give you direction and motivation. Therefore, people with knowledge about money but without financial goals will have poorer financial outcomes compared to those who actively work towards long-term financial goals.

The theory supports the main argument of this study, which is that economic security requires financial acumen as well as behavioural discipline and the capacity to consistently work toward long-term financial objectives.

3.4 Integrating the Theoretical Perspectives

The Life Cycle Hypothesis, the Expectancy Theory, and Goal Setting Theory are integrated to create a comprehensive understanding of the relationship between financial literacy, financial behaviour and economic security.

The Life Cycle Hypothesis provides a rationale for individual savings and planning for retirement. Expectancy Theory will elaborate the motivational factors that determine a person's action to financial knowledge. Goal Setting Theory details the effects of financial goals on behaviour and financial planning.

As a group, these theories imply that retirement security is dependent on something more than just financial knowledge. Financial outcomes are dependent on how well a person can apply their financial knowledge in consistent behaviours which will support them to achieve their financial goals over time.

This holistic view is broadly in line with the notion of financial capability. Financial capability is an appreciation of the need to not only have the knowledge, but also the confidence, motivation, behaviour and practice to take effective financial action over time.

This study thus incorporates a financial capability lens to offer a comprehensive and more realistic understanding of economic security than can be gained from the financial literacy frameworks alone.

3.5 Conceptual Framework

This study builds on the three theories and defines financial literacy as a multi-dimensional phenomenon including financial awareness, financial knowledge, financial attitudes and financial behaviour.

Financial awareness and financial knowledge are the cognitive components of financial decision making. Financial attitudes affect perceptions and preferences towards money management, saving, investing and retirement planning. Financial behaviour is the implementation of financial knowledge in the form of actions that include budgeting, saving, paying off debt, investing in finance, and planning for retirement.

Economic security is defined as the outcome variable and is considered as retirement preparedness, financial independence, financial resilience and income adequacy.

The framework takes the view that financial literacy has a direct and indirect impact on economic security via financial behaviour. The study also suggests that the pathway to positive economic outcomes is financial capability, which is the process through which financial literacy makes a difference in economic outcomes. Therefore, financial literacy will be demonstrated by how well an individual can turn knowledge and awareness into actions that can help improve their wellbeing in the long-term.

METHODOLOGY

This study adopted a quantitative research approach employing descriptive survey, correlational, and explanatory research designs. The selected design was considered appropriate because it enabled the researcher to assess the financial literacy levels of members of the Defined Benefits Scheme (DBS), examine the relationships between the dimensions of financial literacy and economic security, and determine the predictive influence of financial literacy on economic security outcomes. The study was anchored in the positivist research paradigm, which assumes that social phenomena can be objectively measured and subjected to statistical analysis. This paradigm was suitable because the study focused on establishing relationships among measurable variables and generating evidence-based conclusions.

The target population comprised members of the Defined Benefits Scheme under the National Treasury of Kenya, including both pensioners and in-service civil servants. According to records obtained from the National Treasury, the study population consisted of 307,057 individuals, of whom 268,077 were pensioners and 38,980 were serving civil servants. The inclusion of both categories enabled the study to capture a broad spectrum of perspectives from individuals at different stages of the retirement lifecycle, thereby providing a deeper understanding of the relationship between financial literacy and economic security within the scheme.

The sample size was determined using Yamane's (1967) formula for finite populations at a 95% confidence level and a 5% margin of error. Application of the formula yielded a sample size of 400 respondents. A stratified random sampling technique was employed to ensure proportional representation of pensioners and serving civil

servants. The population was first divided into the two strata, after which respondents were randomly selected from each group. The use of stratified sampling enhanced representativeness and minimized sampling bias by ensuring adequate representation of both categories of scheme members.

Primary data were collected using structured questionnaires and semi-structured interview guides. The questionnaire served as the principal data collection instrument and was administered to members of the Defined Benefits Scheme. It comprised five sections covering demographic characteristics, financial awareness, financial knowledge, financial attitudes, economic security, and financial behaviour. Most questionnaire items were measured using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). In addition, semi-structured interviews were conducted with key informants, including pension administrators and financial advisors. These interviews provided contextual insights that complemented and enriched the quantitative findings.

Financial literacy was operationalized as a multidimensional construct consisting of four dimensions: financial awareness, financial knowledge, financial attitude, and financial behaviour. Financial awareness assessed respondents' understanding of financial planning concepts and retirement-related issues. Financial knowledge measured their comprehension of concepts such as inflation, interest rates, investment principles, and retirement planning. Financial attitude examined beliefs and perceptions relating to financial management, while financial behaviour assessed actual financial practices, including planning, saving, debt management, investing, and retirement preparation. Economic security was measured using indicators relating to retirement preparedness, financial independence, income adequacy, financial resilience, and the ability to withstand unexpected financial shocks. Higher scores indicated higher levels of economic security.

To ensure validity, the questionnaire was subjected to expert review by academic supervisors and specialists in finance and pension studies. Feedback obtained during the review process was incorporated into the final instrument to ensure alignment with the study objectives and research constructs. Reliability was assessed using Cronbach's Alpha coefficient. Consistent with established practice in social science research, a coefficient value of 0.70 or above was considered acceptable. The reliability results indicated satisfactory internal consistency among the study variables, confirming the suitability of the instrument for data collection and statistical analysis.

Data collected from the field were coded, cleaned, and analysed using the Statistical Package for Social Sciences (SPSS). The analysis was conducted in three stages. First, descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' financial literacy and economic security characteristics. Second, Pearson Product-Moment Correlation analysis was employed to determine the strength and direction of relationships between the dimensions of financial literacy and economic security. Correlation coefficients ranged from -1 to +1, where positive values indicated direct relationships and negative values indicated inverse relationships. Third, multiple regression analysis was conducted to examine the predictive effect of financial literacy on economic security. The regression model was specified as:

$$ES = \beta_0 + \beta_1FA + \beta_2FK + \beta_3FAT + \beta_4FB + \varepsilon$$

where ES represents Economic Security, FA represents Financial Awareness, FK represents Financial Knowledge, FAT represents Financial Attitude, FB represents Financial Behaviour, β_0 is the constant term, β_1 – β_4 are the regression coefficients, and ε represents the error term. The coefficient of determination (R^2) was used to determine the proportion of variation in economic security explained by financial literacy. Statistical significance was evaluated at the 5 percent significance level ($p < .05$).

Ethical considerations were observed throughout the study. Ethical approval was obtained from the relevant institutional authorities before commencement of data collection. Participation in the study was voluntary, and respondents were informed of the purpose of the study before completing the questionnaire. Confidentiality and anonymity were maintained throughout the research process. Participants were assured that the information collected would be used solely for academic purposes and that no personally identifiable information would be disclosed.

RESULTS AND DISCUSSION

5.1 Respondent Characteristics

The study aimed to find the relationship between financial literacy and economic security of Defined benefits scheme members in the National Treasury in Kenya. The respondents included pensioners and civil servants on in-service, giving a range of views across the pensioner life cycle.

The demographic results showed that most of the respondents were male and had secondary or diploma education. There were also varied age groups and years in service in the public sector among the respondents. Such attributes offer significant background information for understanding financial literacy and economic security outcomes as past research has found age, education, income, and employment experience to be important factors in understanding financial behaviour and retirement preparedness.

The demographic make-up of the sample mirrors the population of the Defined Benefits Scheme and is appropriate for analysis of how financial knowledge relates to economic security.

5.2 Financial Literacy Among Defined Benefits Scheme Members

The first aim of the study was to identify the financial literacy of the Defined Benefits Scheme members.

The results showed that the respondents had moderate to high financial awareness and financial knowledge. The majority of respondents had knowledge of concepts in the areas of inflation, interest rates, investment decisions, retirement planning, and long-term financial management. These results indicate that the general financial literacy level of respondents was found to have a moderate level, and they are aware of the importance of retirement planning.

The findings are in line with past research that found that greater access to financial information, pension education programs, and other measures of financial inclusion led to positive changes in financial awareness (Lusardi & Mitchell, 2014).

Reveals, however, that financial literacy can be uneven along its dimensions, although awareness and knowledge across these dimensions were relatively high. There doesn't seem to be a clear link between knowledge and effective financial management or better economic results. This observation is more pronounced when looking at financial behaviour of the respondents.

5.3 Financial Behaviour and the Knowledge–Behaviour Gap

A significant aspect of this study is the presence of a clear gap in knowledge among members of the Defined Benefits Scheme as compared to their behaviour.

Respondents had moderate to high financial knowledge however, relatively lower financial behaviours. Some issues were also noted such as poor budgeting habits, poor regular saving habits, lack of participation with investment, poor emergency saving habits, and problems with debt management.

These results suggest that financial knowledge does not always lead to positive financial behavior. Though many respondents grasped the financial concepts and the value of retirement planning, they did not have the ability to implement the behaviours needed to ensure long-term financial security.

The result confirms the literature of behavioural finance, which suggests that financial choices often are based on psychological, emotional, and behavioural considerations and not just on knowledge (Kahneman, 2011; Thaler & Sunstein, 2008). People know what financial stewardship should look like but don't translate that into action because they are procrastinators, present biased or have other financial needs, are overconfident, or are tempted to consume in the short-term rather than invest in the long-term.

The results thus question the notion that financial education is enough to enhance retirement outcomes. Rather, they propose that retirement readiness is a function of the capacity to do the same with financial knowledge: financial behaviour.

The knowledge–behaviour gap is one of the most valuable results of the study as it points to a shortcoming of traditional financial literacy interventions. It may be important to increase knowledge, but this alone is unlikely to be enough to achieve a behavioural change unless supported by mechanisms that facilitate this change.

5.4 Economic Security Among Defined Benefits Scheme Members

The study also aimed to measure the Economic Security of Defined Benefits Scheme members.

Results indicated that the level of economic security was relatively low, although a guaranteed pension program was in place. Issues raised by many respondents included financial independence, retirement preparedness, financial resilience to unexpected shocks and financial adequacy.

This is significant as Defined Benefits schemes are tailored to deliver a more predictable retirement income and mitigate the uncertainty of retirement benefits. However, data indicate that membership in the pension program does not insure economic security.

A wider range of factors seems to be affecting economic security, such as saving behaviour and financial planning, dependency burdens, health costs, inflation and personal financial management practices. It is important therefore to consider pensions as part of the retirement security puzzle, and not the entire package.

The results corroborate earlier studies that found that the institutional frameworks and the financial preparedness of individuals are important factors for retirement wellbeing (ILO, 2021).

5.5 Relationship Between Financial Literacy and Economic Security

All dimensions of financial literacy had positive and statistically significant correlation with economic security.

The financial awareness, financial knowledge, financial attitudes, and financial behaviour were all positively correlated with retirement preparedness, financial independence, and overall economic security.

The findings indicate that an increase in financial literacy is linked to an increase in financial wellbeing. Those who were more financially literate tended to feel more economically secure and more confident about their retirement readiness.

The findings confirm the hypothesis of a "life cycle", whereby financial planning for the retirement period makes a positive difference to financial stability at different stages of the retirement journey. They also confirm previous research which has linked financial literacy to retirement planning and savings.

The results also indicate, however, that certain aspects of financial literacy may be more important than others. Especially about economic security outcomes, financial behaviour seems to have a more direct association with financial awareness than with awareness alone. This observation emphasizes the need to go beyond learning to doing in financial skills.

5.6 Financial Literacy as a Predictor of Economic Security

The regression analysis showed that financial literacy has a significant impact on economic security among Defined Benefits Scheme members.

The R^2 was 0.414 for this model, which implies that 41.4% of the variation in economic security among the respondents was due to financial literacy.

This discovery aligns with the fact that financial education is a significant factor in determining retirement wellbeing and economic resilience. People with higher financial awareness, knowledge, attitudes and behaviours are more likely to have positive financial outcomes.

However, the results also suggest that just 58.6% of the variation in economic security is accounted for by financial literacy. This means that a wider range of factors such as pension adequacy, inflation, health expenses, dependency pressures, investment prospects, macroeconomic factors and household financial circumstances affect economic security.

The results thus underscore the significance, but also the constraints, of financial education as a policy measure. Financial Literacy is important in achieving economic security, but it can't solve all the problems that structural and economic factors pose to retirees.

5.7 Financial Capability and Retirement Security

The results indicate that financial capability is a more complete lens to examine the issue of retirement security than financial literacy.

Financial literacy is centered on knowledge and awareness while financial capability is about confidence, motivation, skills, and behaviours to use financial knowledge. This study shows that many of the respondents have some financial knowledge but are still demonstrating behaviours that are compromising their long-term financial security.

It is important to note that this difference is crucial, as it is not just knowledge that is important but also behaviour which determines the outcome of retirement. Financial literacy doesn't matter to individuals until it is applied to their personal economy, for example, budgeting, saving, investing, debt management, retirement planning, etc.

Thus, it is likely that the evidence highlights a shift from information-based financial literacy interventions to financial capability development as a foundation for better retirement security. This acknowledges the importance of what people know, but also what they can and will do with what they know, in order to have a successful financial situation.

5.8 Implications for Pension Reform and Kenya's Evolving Pension System

The findings have significant policy implications for pension policy and current pension reforms in Kenya.

The recent pension reforms have been directed towards broadening the coverage of pension plans, enhancing governance, making pension plans more sustainable and boosting participation in retirement savings programmes. Meanwhile, financial inclusion, entrepreneurship, mobilisation of savings, creation of wealth and household economic resilience are some of the pillars of national development highlighted by Kenya's Bottom-Up Economic Transformation Agenda (BETA).

Based on the findings of this study it seems that the success of these programs could also rely on the financial resources of pension package members.

It is crucial to this issue since pension systems are becoming more contributory, increasingly involving people in retirement planning and investment. Contributory schemes often involve members in making choices about contribution amounts, investment mix, risk preferences, diversification and withdrawal of funds when they retire.

This set of weaknesses seen among Defined Benefits Scheme members thus serve as an important lesson in policy. Where pension systems guarantee retirement benefits despite economic insecurity, greater focus should be placed on enhancing financial capability prior to further burden on individuals through pension reforms.

The results indicate that ongoing financial education and behavioural support, retirement advice, financial education, financial education programmes and financial planning aids should be incorporated into any future pension reform. These measures would not only help to contribute to better retirement security, but also to the

other national goals regarding savings mobilization, financial inclusion, entrepreneurship and economic resilience.

The study concludes that, apart from pension design, the overall long-term performance of the maturing pension system in Kenya will depend on the financial literacy of the pension scheme members.

POLICY IMPLICATIONS AND RECOMMENDATIONS

6.1 Policy Implications

The study results have policy implications with respect to pension policy, financial inclusion, retirement security and economic development in Kenya.

The study shows first that economic security is not necessarily the result of financial knowledge. Defined Benefits Scheme members had moderate to high levels of financial awareness and financial knowledge but many still had low levels of financial behaviours around budgeting, saving, investment planning, debt and emergency preparedness. This implies that financial literacy programs based mainly on knowledge sharing can be only partly effective, if not without interventions to promote change in behaviour.

Second, the results indicate that the security of pension funds needs to be considered as a responsibility of the pension institution, the employer, the government and each member. Economic security is not only determined by pension schemes, but also by personal financial behaviour, financial decisions within the household, long term retirement planning and the wider economy. Therefore, pension policy should be not just about benefits administration but a fundamental part of financial capability building should also be covered in the framework of retirement security.

Thirdly, the results present significant implications for the current pension reforms in Kenya. Financial capability is becoming increasingly relevant as pension systems increasingly focus on a contributory approach and a higher level of individual responsibility. People involved in contributory pension schemes may need to make choices about contribution rates, choice of investments, risk appetite, choice of pension fund, diversification, and claiming pensions. The findings of this research indicate that lack of financial knowledge can make members vulnerable to suboptimal financial choices, and suboptimal retirement outcomes.

Moreover, the results are in line with the Kenya Bottom-Up Economic Transformation Agenda (BETA) that aims to boost household savings, financial inclusion, enterprise development, wealth creation, and economic resilience. These goals are further facilitated by financial capability, which allows individuals to save, engage in investment activities, assess financial risks and plan more effectively for retirement.

Last but not least, financial capability needs to be seen as a national development and a retirement policy challenge. Better financial capacity helps families attain retirement security, as well as long-term economic growth, higher domestic savings, and greater family resilience, and fosters growth of entrepreneurship.

6.2 Policy Recommendations

Strengthen Financial Capability Programmes Across the Public Service

The Government of Kenya should implement financial capability programmes for public servants on an institutional basis as an ongoing process, instead of focusing on financial education at the time of retirement.

These programs should emphasize the following financial habits:

- Budgeting
- Saving
- Investment planning
- Debt management

- Emergency preparedness
- Retirement planning

The results indicate that there is already a lot of knowledge within the members. Future interventions should therefore focus more on supporting individuals to take knowledge into action by means of behavioural coaching, financial planning tools and goal-oriented financial management programmes.

Integrate Financial Capability into Pension Administration

The role of pension institutions and administrators should not be limited to pension administration, but also they should actively promote the members' financial capability development.

Pre-retirement counselling should be provided several years before retirement and not just one or two years before retirement. Pension administrators should provide:

- Regular retirement projections
- Retirement preparedness assessments
- Investment education
- Financial planning guidance
- Support with retirement planning and income management

Such interventions can assist members to make decisions before entering retirement rather than having to deal with financial issues once in retirement.

Support Financial Capability During Pension Reform

Financial capability is a pre-requisite to effective pension reform, and remains an important factor to consider in Kenya as it continues to build pension coverage and improve contributory pension systems.

Pension reforms need to be supported by programmes to assist members to understand:

- Pension contributions
- Investment principles
- Risk and return
- Portfolio diversification
- Retirement income planning
- Long-term wealth accumulation

Sharing more financial responsibility with people without bolstering their financial capability can enhance retirement vulnerability rather than retirement outcomes.

Promote a National Savings Culture

The results highlight the need for strengthening savings culture within Kenyan households.

There is a need for the development of a policy to encourage regular saving from an early age, through partnerships between government agencies, employers, financial institutions, educational institutions and pension providers. Campaigns to raise public awareness should highlight:

- Emergency savings
- Retirement savings
- Long-term investing
- Financial resilience
- Wealth accumulation

Improved savings habits would help ensure retirement security and other national development goals by stimulating domestic savings and investment.

Extend Financial Capability Programmes to Entrepreneurs and Small Business Owners

Financial capability programmes should not be restricted to those on salary, or those on pension.

Entrepreneurship, self-employment and small business are sources of income for many people before and after retirement. But being a business owner doesn't mean you are a financially secure person.

Small business and entrepreneurs should be trained in:

- Business financial management
- Cash flow planning
- The share of saving and investment options
- Risk management
- Pension participation
- Retirement planning

This is especially significant as many retirees invest their retirement benefits in small businesses after retiring. If a person doesn't have the financial skills to make these investments, they can end up failing and put retirees at even more financial risk.

Develop Behavioural-Based Financial Interventions

Financial education programs typically concentrate on the dissemination of information. This research, however, indicates that behavioural barriers are a big obstacle to retirement preparedness.

Interventions in the future should include the use of behavioural strategies including:

- Goal-setting programmes
- Automated savings mechanisms
- Commitment savings products
- Financial coaching
- Specific digital planning tools for finance.
- Peer accountability structures

Interventions could achieve better financial outcomes than information based interventions alone.

Align Financial Capability Programmes with the Bottom-Up Economic Transformation Agenda (BETA)

The Government of Kenya should take financial capability development as part and parcel of the Bottom-Up Economic Transformation Agenda.

Financial capability has a direct connection to:

- Household savings mobilisation
- Financial inclusion
- Entrepreneurship development
- Wealth creation
- Economic resilience

Therefore, enhancing financial capacity would help to promote retirement security goals as well as national economic transformation. Financial capability should be embedded in national policies designed to enhance households' wellbeing and inclusive economic growth.

Encourage Lifelong Financial Learning

There is no need to consider financial education as a standalone lecture or session at the end of the retirement planning process.

Financial capability development, on the other hand, should be considered as a continuous process, which adapts to the changing financial situations and retirement requirements throughout an individual's life. There should be ongoing opportunities to learn about money throughout the working life provided by employers, pension administrators, financial institutions and educational institutions.

This would contribute to maintaining the financial knowledge as relevant, useful and useful for making financial decisions at various stages in life.

CONCLUSION

This research investigated the relationship between financial education and economic security of Defined Benefits Scheme members in the National Treasury of Kenya. The results indicated that the financial awareness and financial knowledge of the respondents were moderate to high. Other financial habits included in the questionnaire, however, were not as strong, including budgeting, saving, investment planning, debt management, and emergency preparedness. Concurrently, a large share of respondents expressed worries about being ready for retirement, financially independent, having enough income to support their families, and being able to withstand financial shocks.

The study found all the dimensions of financial literacy positively and significantly related to the dimension of economic security. Financial literacy accounted for 41.4% of the variance in economic security among respondents, highlighting its role as a factor associated with retirement wellbeing. However, the results show that economic security is not ensured by financial education. There are large components of economic wellbeing that are not directly related to financial literacy and are driven by other factors such as pension adequacy, inflation, health care costs, dependency burdens, investment opportunities, and macroeconomic conditions.

The most significant finding in this study is the need for identifying the knowledge-behaviour gap within members of the Defined Benefits Scheme. While most people knew some of the basic financial terms, they often did not have the ability to apply the information they had acquired in a way that would enhance their financial future. In light of this discovery, the idea that more financial knowledge leads to better financial outcomes is called into question, and the conventional approach of financial literacy programs based on information transmission is questioned.

The study thus suggests that, while financial literacy may be a component of financial capability, it is far from exhaustive because financial capability offers a better framework to understand retirement security. Financial capability is more than knowledge and includes confidence, motivation, behaviour control and practical skills in making effective financial choices throughout life. Results indicate that the nature of retirement outcomes is influenced by how much individuals know as well as their capacity to put their knowledge into regular financial practices.

The results are relevant to the developing pension system in Kenya. Pension policies are increasingly seeking to extend coverage and improve the sustainability and participation in pension schemes, which will place greater responsibility on individuals to make decisions regarding savings, investments, risk management, and retirement planning. In such circumstances the financial capacity of the pension scheme members is just as significant as the design of pension schemes.

Moreover, the results are consistent with the overall goals of Kenya's Bottom-Up Economic Transformation Agenda (BETA) underpinned by household saving, wealth creation, entrepreneurship, financial inclusion and economic resilience. Enhancing financial competence can positively influence retirement security and support national development goals by increasing the mobilisation of savings, participation in investments, and financial stability of households.

Finally, the research finds that knowledge is not enough in order to have economic security. Kenya's pension reforms will only succeed if people have the financial capacity to manage their retirement resources effectively, as well as if the pension structure is adequate. All stakeholders should therefore shift the focus from financial literacy programmes to a wider financial capability approach, enabling individuals to convert their financial knowledge into behaviour that contributes to achieving long-term financial wellbeing.

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