The Intra-Relationship Between Financial Planning, Financial Literacy and Investment Decision: Evidence from Nigerian Banks

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Abstract

Financial literacy has become so topical an issue and imperative for employees as a result of the fact that the coverage and generosity of public pension programs have been de-emphasized due to their unsustainability. Thus, employees are increasingly expected to be more personally responsible for saving and investing for their future retirement. Therefore, the objective of this study is to investigate how planning for retirement by employees is affected by their level of financial literacy. Using a survey research design, copies of questionnaire based on a six-point Likert type scale with six measurement items each for the four latent construct variables were administered on 322 employees of Access Bank Plc. and Central Bank of Nigeria. Three hypotheses were proposed for the study and were estimated with the aid of Structural Equation Modelling (SEM) using Maximum Likelihood Estimation Technique. The results show that financial knowledge has no significant relationship with retirement planning as it has a weak positive/insignificant effect on propensity to plan and a negative insignificant effect on investment decision. However, the study revealed that financial behavior in the form of financial planning behavior and retirement planning affect each other positively and significantly as the effect of financial planning behavior on investment decision and propensity to plan is positively significant. Even though financial knowledge has negative effect on investment decision and positively weak with propensity to plan, the joint effects of financial knowledge and financial behavior show that their contribution to retirement planning is up to 97.6% on propensity to plan and 83.3% on investment decision. The researcher recommended among others that employees should ensure a good income appropriation and budgeting strategy to avoid distortion in their goal of accumulating wealth; and be futuristic by setting aside fund for the future by way of investing in income generating assets rather than living only for the economic moment.

Keywords: Financial Literacy, Retirement Planning, Financial Knowledge, Financial Behavior, Investment Decision and Propensity to Plan.

1.0 Introduction

Financial literacy is a very topical issue that has generated much interest in the recent past; especially in the developed world due to the dynamics of the financial environments (Olajide, Efetabore & Arewa, 2020). The focus on financial literacy has increased especially in the area of retirement planning as emphasis is no more on the coverage and generosity of public pension programs all over the globe; rather, it is now required that employees be responsible for a greater share of their future retirement savings during their active working life and at retirement; else their financial well-being might be jeopardized. (The Aegon Centre for Longevity and Retirement, 2018).

Globally, holistic pension systems are one of the major mechanisms for preparing towards retirement, as the systems enable and encourage active participation of employees, and the income stream after retirement increasingly relies on private savings, (Hauff, Carlander, Gärling & Nicolini, 2020). However, pension systems always undergo reforms at different times because of inherent challenges and changes in the economic and financial landscape due to globalization among others (The Aegon Centre for Longevity and Retirement, 2018; Dovie, 2018). These reforms and changes which include increase in longevity and population aging have implication for employees and retired workers as they affect how employees plan for their future especially as it concerns retirement preparation. Also, these changes place growing financial strain on the state social security safety nets and workplace benefits such as defined benefit retirement plans (The Aegon Centre for Longevity and Retirement, 2018).

Financial literacy therefore, can be defined as knowledge of fundamental financial concepts and the ability to do simple financial calculations, and is a key skill required to ensure adequate financial protection after one's active working life and old age (Ogoi, 2019). Thus, financial literacy becomes imperative, as employees are increasingly expected to be more personally responsible for saving and investing for their future retirement. Irrespective of the approaches adopted to achieve financial independence in the future, a solid understanding of financial concepts will help people make better-informed decisions; hence, saving, investing, and planning for retirement can be an exercise in futility if an employee lacks the requisite knowledge and skills that are required to be successful in these areas (The Aegon Centre for Longevity and Retirement, 2018).

There is a growing concern that people are not adequately planning for retirement rather, they are depending on the state for their welfare and some are behind in their financial retirement plans (Reyers, Van Schalkwyk & Gouws, 2015; Nunn, 2017; Kirkham, 2016). Bello (2019) equally revealed that lack of planning for retirement is a key cause of the financial predicaments being experienced by many during retirement periods in developing nations including Nigeria and concluded that despite the importance of retirement planning and savings, many households are unfamiliar with even the most basic economic concepts needed to make informed saving and investment decisions due to widespread financial illiteracy; and this indeed has serious implications for retirement planning, and other investment decisions.

Therefore, the key challenge for the individual employee in this new era of being personally responsible for one's future retirement wellbeing, is ensuring that one's retirement strategies reflect economic and social factors and the decisions to be made in respect of retirement will require that they leverage financial knowledge, financial planning behavior, provision of appropriate advice and information; as these will make them to understand both the need for a retirement savings plan and the choices they need to make to implement the plan successfully.

1.1 Statement of the Problem

Retirement is the point where a person stops employment completely and is capable of supporting himself through alternative means such as investment, pension plans among others (Achari, Oduro & Nyarko, 2020). However, it appears retirement planning among workers in Nigeria is still a mirage despite the introduction of the Pension Reform Act of 2004 (as amended 2014) which major objective is ensuring that every person who worked in the Nigerian public or private sector receives his/her retirement benefits as and when due; and equally ensure improvident individuals save in order to cater for their livelihood during old age (Pension Reform Act, 2004).

Ogunyemi and Oderinde (2019) opined that Nigerian workers are the main architect of the predicaments they experienced and still experiencing as they do not personally plan for retirement. They adduced further that most employees have this attitude of living only for the economic moment and forgetting the future, some procrastinate planning while others do not plan at all until they are faced with the realities of retirement. Adetunde, Derby, Imhonopi and Oluwawemimo (2019) however insisted that workers are not well remunerated hence, the lack of retirement preparedness which usually lead to lack of adequate income in post-retirement years and this had in the past made pensioners faced frustration and sudden death.

In Olanipekun and Agboola (2021), one major challenge identified facing Nigerian retirees is lack of adequate plan for their retirement and this had made and is still making them to experience negative situations such as inadequate finance to settle bills, frustration, financial uncertainty, unhappy life style and low social affinity. However, according to Noolan and Dooley (2019), the skills required to ensure adequate financial protection in older age could be demanding, and this requires an understanding of discounted values, interest rates, the role of inflation, survival probabilities and so on.

Unlike in the more developed world where more attention has been given to the issue of financial literacy vis-à-vis retirement planning, little attention is so far being given to it in this part of the world and studies on financial literacy and retirement planning further show that lack of financial literacy was still a constraint to having a defined financial plan for retirement. Therefore, it is on this context that this study seeks to examine the role of financial literacy in retirement planning in Nigeria with focus on the banking sector.

1.2 Objectives of the Study

The main objective of the study is to examine the effect of financial literacy on retirement planning of the employees of Access bank Plc. and Central Bank of Nigeria while the specific objectives are to:

1. examine the effects of Financial knowledge (FINK) on Investment decisions (INVD) of bank employees.
2. assess the effects of Financial planning behavior (FINPB) on Propensity to plan (PROPP) among bank employees.
3. examine the joint effect of Financial literacy variables on Retirement planning variables among bank employees.

1.3 Research Questions

1. To what extent does Financial Knowledge influences investment decisions among bank employees?
2. Does Financial Planning behavior affects Propensity to plan among bank employees?
3. Is there a significant joint effect of financial literacy variables on retirement planning variables among bank employees?

1.4 Hypotheses

In line with extant literatures as contained in (Afthanorhan, Mamun, Zainol, Foziah and Awang, 2020; Xiao and O'Neil, 2018; O'Neill, Xiao and Ensle, 2016), the following hypotheses are proposed.

Hypothesis 1 (H_{01}). Financial Knowledge significantly influences Investment Decisions.

Hypothesis 2 (H_{02}): Financial Planning Behavior has a significant effect on Propensity to Plan.

Hypothesis 3 (H_{03}): There is a joint effect of financial literacy variables on retirement planning variables.

1.5 Operationalization of variables

When operationalized, Retirement Planning (RP) = f (Financial Literacy (FL) where retirement planning is the dependent variable while financial literacy is the independent variable.

1.6 Significance of the study

This study is relevant to employees in paid employment who are solely faced with the responsibility of deciding their financial well-being after their retirement since the adoption of the Contributory Pension Scheme by both public and the private sectors as this will make them understand the importance of seminars on financial literacy and retirement planning and be encouraged to attend when the need arises.

Employers of labor can also benefit from this study in the sense that it will afford them the basis to determine the true financial literacy level of their employees vis-à-vis their preparedness for retirement. Organizations will be encouraged to look at the prospect of improving financial literacy through on-the-job training or regular seminars

Developers of curriculum of learning and researchers can also benefit from this study. It can serve as a basis upon which Institutions of learning can introduce courses that emphasize financial literacy and this is capable of improving nation-wide, the financial literacy level.

Policy makers like government may be spurred to undertake a nationwide financial literacy campaign and retirement planning programs for public sector employees.

1.7 Scope of the study

The study is limited to the financial sector; hence the study is based on employees of Access Bank Plc. and Central Bank of Nigeria for ease of convenience and accessibility. The choice of the CBN is because it is the banker of all Deposits Money Banks (DMBs) as well as being a public sector bank while Access Bank Plc. is chosen because it represents banks in the private sector, and by its merger with the defunct Diamond Bank, it became the largest bank in Nigeria by customer base and total assets and the largest bank in Africa by customer base (source: Access Bank Plc. 2019 Annual Report).

2.0 Literature Review

2.1 Conceptual Clarification

2.1.1 Financial Literacy

The Central Bank of Nigeria, CBN (2015) defines financial literacy as the possession of knowledge and skill by individuals to manage financial resources effectively to enhance their economic well-being. Financial Literacy includes both the ability to apply quantitative reasoning with a view to making appropriate short term and long term investment decisions putting into consideration changing economic conditions; as well as general knowledge about financial markets, instruments and institutions. Thus, the individual must not only be knowledgeable financially, but must be able to apply the knowledge for optimal investment decisions as corroborated by Achari et al. (2020) where financial literacy is viewed from two dimensions one of which is being equipped with the knowledge and secondly, applying this knowledge acquired to make financial and/or economic decisions.

In Bay, Catasus and Johed (2014), the various definitions of Financial Literacy were summarized and classified into five categories namely: (i) knowledge of financial concepts, (ii) ability to communicate about financial concepts, (iii) attitude in managing personal finances, (iv) skill in making appropriate financial decisions and (v) confidence in planning effectively for future financial needs.

However, the Organization for Economic Co-operation and Development, 2005 (OECD) opined that the working definition of Financial Literacy is a combination of awareness, knowledge, attitudes and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being. Also, high levels of financial literacy enable people to make informed and confident decisions on all aspects of their budgeting, spending, saving and planning for the future (The ANZ Bank, 2008; Janor, Yakob, Hashim & Wei, 2016).

From the above definition, the researcher highlighted two components of financial literacy, namely financial knowledge and financial behavior in this study.

2.1.2 Financial Knowledge

According to Achari et al. (2020), financial literacy and financial knowledge are used interchangeably by some authors in their literature to mean the same thing. However, financial knowledge can be described as the stock of knowledge acquired through financial education and/or experience that is specifically related to essential personal finance concepts and products. Financial literacy on the other hand is the ability and confidence to apply or use this knowledge related to personal finance concepts and products; hence, it plays a key role in the drive to attain financial literacy as it can be seen as a foundation on which other dimensions of financial literacy depends.

Financial knowledge which requires that an individual be savvy in the area of savings, investments, risk and return relationship, risk diversification and retirement planning can be viewed as a core element of financial literacy which refers to the understanding of financial concepts that allow economic beings to make informed financial decisions. This presupposes that an individual need to be knowledgeable on basic financial and economic concepts as savings and investments, time value of money, debt management and insurance, portfolio diversification, risk element and some basic financial computations to be able to maximize investment gains in our complex financial world (Antoni, Saayman & Vosloo, 2020).

2.1.3 Financial Behavior

According to Perera (2019), IGI Global defined financial behavior as any human behavior that is relevant to money management. Common financial behaviors include cash, financial planning, credit and saving behavior and the way in which individuals behave in these areas will have a significant impact on their financial literacy.

Financial behavior is a lens through which one can get to understand the concept of financial literacy and it has been observed to be influenced by financial literacy positively. Mandell and Klein (2009) reaffirmed the influence of financial literacy on financial behavior when they opine that those who were exposed to retirement seminars increased their participation in and contribution to voluntary savings plans. Furthermore, they said those that receive credit counseling tended to improve both borrowing behavior and credit worthiness.

Behavioral assessment of personal finance management has been used to measure financial well-being. Personal financial management behavior includes (a) financial planning for a short and long term financial goals, (b) management of income and credit and (c) investing for the future. Also, it is posited that individual's financial well-being can either be objective in terms of income, assets, etc. or subjective in terms of financial satisfaction; thus, it makes sense that financial behavior should improve financial well-being (Adam, Frimpong, & Boadu, 2017).

2.1.4 Retirement Planning

According to Investopedia.com, Retirement Planning is the process of determining retirement income goals and the actions and decisions necessary to achieve those goals. Retirement planning includes identifying sources of income, estimating expenses, implementing a savings program and managing assets. Future cash flows are estimated to determine if the retirement income goal will be achieved. Antoni et al. (2020) describe retirement planning as consisting three stages which are: (i) planning for retirement, in which the individual works and makes financial provision towards retirement age, (ii) the individual deals with issues such as the tax implications of withdrawing benefits immediately prior to retirement and (iii) planning after retirement (post-retirement stage), in which the individual needs to ensure that there is adequate capital and how to preserves it during the retirement period.

According to Hauff et al (2020), retirement savings behavior relies specifically on two assumptions critical to the life cycle model. One assumption is that individuals know how to optimize over the life cycle in the way the life cycle model implies, while the second is that people are able to exert sufficient self-control to do this. Where retirement behavior falls short of these assumptions, the consequences may be very adverse. The summary of these assumptions is that even though one understands the need for accumulating funds for later use in life, if one lacks self-control and do not sufficiently decrease current consumption, it has severe consequences for retiree income.

2.1.5 Investment Decision

According to financial-dictionary.thefreedictionay.com, investment decision is the determination of where, when, how and how much capital (fund) to spend and or debt to acquire in pursuit of making a profit or gaining a benefit.

Mugo (2016) define investment as an activity that is engaged in by people who have savings by committing their funds in capital assets/goods and services, with an expectation of some positive rate of return. An essential element of investment is the anticipated return; therefore, emphasis must be on the management of the asset invested on with a view to achieving value appreciation of the asset. Furthermore, investment decisions are vital among the many decisions that one has to make in life for one's future financial well-being. It is then very important that individuals strive to learn about money and the way it works. It is not an understatement therefore, to say that the realization of the importance of contributing to saving and investment, motivated National governments to make mandatory contributions to so many pension funds and offer the contributor the option of investing with them so as to be financially independent later in their life when they will be less productive.

Investment planning according to Kura (2017) is to achieve some objectives which are wealth accumulation, wealth preservation and wealth increase and living on saved wealth through income generation and these he referred to as the financial cycle. Thus, the onus is on individuals who must be ready to make personal decision on investment which involves trying to allocate the limited resources to various competing financial products (such as retirement plan) available and equally be careful to consider the risks and returns thereof.

2.1.6 Propensity to Plan

In Lee and Kim (2016), literature reveals that the concept of propensity to plan was developed from psychological theories of planning and its studied association with wealth accumulation using sample of teachers' retirement plan participants. The study found that propensity to plan is a skill and individuals who possess this skill are rational, patient, risk-taking, and good at budgeting, controlling spending, and saving frequently. Propensity to plan as a concept was later used as a guide in the study of association between it and a set of financial well-being indicators such as retirement savings using older adult sample in the Health and Retirement Study and a national sample of the Survey of Consumer Finances on retirement savings and net-worth.

Propensity to plan as viewed from personal finance and economics lenses, is defined as a set of attitudes and skills that affect the way a household addresses the task of financial planning. Propensity to plan is also seen as a tendency to make efforts to pursue a goal by using reminders and prompts to reduce possible distractions. Hence, it is opined that those who are willing and able to engage actively in managing their financial affairs, and attend constantly and carefully to their consumption patterns, have a greater tendency to regularly review and resolve problems such as excessive spending and this is in line with the propensity to plan theory that refers to the intentional efforts made by planners to reduce the conflict between future utilities and present satisfaction.

Further, Lee and Kim (2016) reveals that propensity to plan can be described as a general tendency to make financial plans in different time frames that includes: (i) setting a financial goal; (ii) having a spending plan; (iii) practicing self-regulated activity; (iv) establishing and reviewing a budget, and (v) checking emotional comfort or satisfaction with future financial plans. Thus, control skill is manifest in propensity to plan in that it shows those who are more willing and able to engage in financial management, those that monitor their patterns of spending, and those that will be able to notice and overcome challenges more quickly or easily.

2.2 Factors Affecting Financial Literacy and Retirement Planning

There are evidences to show that there exist relationships between demographic, socioeconomic factors and sources of information with financial literacy and retirement planning. Retirement planning is found to be influenced by age, in that one becomes more competent in financial decision making with age and men undertake sole household responsibility for planning retirement savings than women. Also, income can actually determine the extent to which an individual can engage in retirement planning; and lack of money is a contributory factor to absence of planning for retirement (Chauhan & Indapurkar, 2017; ANZ Survey, 2008). Education is capable of producing significant changes in individual perception of retirement plan because of the improved understanding of retirement income needs and the savings process (Dovie, 2018). Those who are in professional and managerial occupations usually have higher financial literacy scores and have the likelihood to understand the importance of retirement planning (ANZ Survey, 2008; Al-Tamimi & Bin Kalli, 2009). Retirement Planners leverage both the informal and formal advice for their decision making process as retirement planning starts with estimating post retirement needs by way of fund calculation and actual savings amount needed and choosing instruments after weighing all the available instruments and options. (Chauhan & Indapurkar, 2017; Dovie, 2018; Bello, 2019).

2.3 Theoretical Framework

2.3.1 Theory of Future Time Perspective

The future time perspective theory was made popular by Zimbardo and Boyd (1999) through the Zimbardo Time Perspective Inventory using a 56-item inventory to measure different aspect of individual's time perspective namely: the past positive and negative, the present hedonistic and fatalistic and the future perspectives. The essential of the concept of time perspective theory is the effects of time on individuals' actions and basically divides the human experience into the past, present, and the future. It is characterized by planning for, and achieving future goals in that, individuals tend to have a higher degree of focus on future consequences and are very conscientious as the future is anticipated and integrated in the psychological present of an individual according to Lewin (1942) as contained in (Dwivedi & Rastogi, 2017). Future time perspective has been found to be positively associated with several significant aspects of life including academic achievement, socio-economic status and future well-being of positive functioning people (Dwivedi & Rastogi, 2017). Earl, Bednall and Muratore (2015) investigated the relationship between time perspective, propensity to plan and how well people adjust to retirement. They found that time perspectives predict retirement planning; and that studies have shown that people who enjoyed the moment might have the tendency to plan now in order to preserve the same lifestyle in the future while those that are dissatisfied with their negative past may be encouraged to create a more positive future by eliminating or minimizing negative aspects of their lives, and provide useful experience for making wise planning decisions.

Hence, this theory is relevant to this study because individuals' future orientation has a relationship with how they plan for future desired goals as this is supported in Afza and Patil (2020) where they considered time perspective theory as one of the behavioral theories relevant for retirement financial planning in Malaysia and equally found that individual's future orientation has direct relationship with retirement planning behavior.

2.3.2 Theory of Planned Behavior

The theory of planned behavior was developed by Ajzen in 1985 as an off-shoot of the assumption made in respect of human behavior in the theory of reasoned action, a psychological theory that links beliefs to behavior. The theory maintains that three core components namely: attitude, subjective norm and perceived behavioral control, together shape an individual's behavioral intentions. Xiao (2015) defined attitude as either having a positive or negative perception towards certain behavior and also the beliefs held regarding the results of performing the behavior. Subjective norm is further defined as the acceptance or non-acceptance of a behavior by significant individuals. Lastly, perceived control is the degree of difficulty associated with a behavior.

Summarizing the relationship between these three factors, Xiao (2015) opined that the general rule is that the more an attitude towards a task is positive, the higher the societal approval and hence, it becomes easier to perform. For example, if one has a behavioral intention to retire well, one of the rational attitudes towards this task is having a good retirement savings which no doubt has a high societal acceptance. Thus, the attitude, subjective norm and perceived behavioral control, all support saving for retirement and this makes the action of saving for retirement more likely. This is corroborated in Zhang and Lee (2016) that the more the attitude of financial preparation for retirement is positive the higher the level of the intention of the financial preparation for retirement tends to be higher.

This theory is thus, relevant to this study as it has been applied to individual behavior in relation to investment decisions for retirement plan and this aligns with Afza and Patil (2020) where it is stated that the theory of planned behavior is one of the behavioral theories relevant for retirement financial planning.

2.4 Empirical Review

2.4.1 Financial Literacy and Retirement Planning

Ogoi (2019) carried out a study on the role of financial literacy on retirement planning in Rwanda using SPSS to analyze the data and it was discovered that financial literacy had a strong correlation with voluntary retirement; that early voluntary retirees are more likely to have a higher financial literacy level and sound retirement planning than those who have low level of financial literacy. Similarly, it was opined that financial literacy was still a constraint to retirement planning as study on financial literacy and its association with retirement planning in Russia reveals that only 36.3% of respondents of a sample understood interest compounding and only half could answer a simple question about inflation (Olajide et al., 2020).

2.4.2 Financial Knowledge and Retirement Planning

Chen and Sun (2021) investigated the effect of consumer financial knowledge on retirement planning behaviors in China, utilizing data from the National Financial Capability Study in 2009, 2012, 2015, and 2018. With the aid of series of regressions, they found that financial knowledge presents a positive effect on retirement planning behaviors and that consumers with a high level of financial knowledge tend to perform desirable retirement behaviors. The implication is that consumers with high financial knowledge might find it easier to understand the technical details of financial products and the risks involved, which helps them in obtaining information, calculating, and planning. The authors then advised that financial education be emphasized and funded by concerned government institutions, to help consumers understand the financial market, recognize financial products, and make comprehensive financial investments and stimulate consumers to improve their retirement planning behaviors.

2.4.3 Financial Behavior and Retirement Planning

Olajide et al. (2020) did a study on financial literacy and personal investment decisions using the structural equation modelling (SEM). It was observed that financial behavior influences retirement planning and vice-versa. They posited that people financially plan their retirement if they have sound financial behavior. This position was earlier supported by Brown and Graf (2012) where it was revealed that financially literate households are more likely to participate in financial markets, own mortgage and have retirement savings account. They concluded that financial literacy level as indicated by financial behavior, has a correlation with voluntary retirement savings, mortgage borrowing and financial market participation.

3.0 Methodology

The researcher adopted the descriptive survey research design for this study by employing questionnaire in order to elicits first-hand information from the respondents to measure the four constructs of the study; and also provide a clear and detailed description of the phenomenon under study. The population of the study comprised of employees of Access Bank Plc. and Central Bank of Nigeria. Hence, the target population of the study is 38,906 employees which is the combine staff strength of the Central Bank of Nigeria and Access Bank Plc (CBN Annual Draft Report, 2019; Access Bank Annual Report, 2019)

The sample size of this study was determined using the Taro Yamane (1967) formula for a finite population cited in (Oyeniyi, Abiodun, Obamiro, Moses, & Osibanjo, 2016). The formula is: $n = N/1+N(e)^2$ where,

n = the sample size,

N = the Target Population of the study,

e =level of precision or error limit.

Therefore, with a 95 percent confidence level, the precision level or margin of error will be 5 percent. Hence,

$n = 38906/1+38906(0.05)^2$,

n = 38906/98.265 = 395.9 = 396.

Out of the 396 respondents that were surveyed, 198 (50%) were Access Bank staff while the remaining 198 (50%) were staff of the CBN. Collectively, three hundred and twenty-two (322) returned the questionnaire; thus, the sample of the study constitutes about 85.18 percent of the accessible population.

Two non-probabilistic sampling techniques were adopted by using the purposive and convenience sampling techniques for ease of convenience and accessibility; and the believe that the respondents have the required knowledge to respond to the questionnaire items. Thus, the data employed for this study was primary data using questionnaire adapted from (Afthanorham, Mamun, Zainol, Foziah and Awang, 2020; Kimiyagahlam, Safari and Mansoric, 2019), modified and structured in a six point Likert's type scale with six items (questions) that measured each of the four constructs of the study.

Face and content validity were employed as the research instruments were subjected to scrutiny and critical evaluation by some experts in the same thematic areas. Aside, a pilot study was carried out using fewer instruments and they were analyzed during a practical session in the department. The Composite Reliability, also known as Construct reliability test was carried out to measure the overall reliability of a collection of heterogeneous but similar items measuring a construct. The Composite Reliability scores of the items in respect of the constructs range from 0.896 – 0.966 and since the threshold for good reliability is 0.6 and above, there is evidence, to say that the extracted instruments are internally consistent with the loaded latent variables (see details in Table 4.1E).

3.1 Model specification

In line with similar studies (Ogoi, 2019; Achari et al, 2020; Antoni et al, 2020) with modification, the model specification for this study is defined as:

3.1.1 Structural Equations (construct equations)

$INVD = b_1\ FINK + h_1$ 3.1

$PROPP = b_2\ FINPB + h_2$ 3.2

$INVD = b_3\ FINK + b_4\ FINPB + h3$ 3.3

$PROPP = b_5\ FINK + b_6\ FINPB + h_4$ 3.4

3.1.2 Measurement Equations (instrument equations)

$FK_1 = a_1 FINK + e_1$ 3.5

$FK_2 = a_2 FINK + e_2$ 3.6

$FK_3 = a_3 FINK + e_3$ 3.7

$FK_4 = a_4 FINK + e_4$ 3.8

$FK_5 = a_5 FINK + e_5$ 3.9

$FK_6 = a_6 FINK + e_6$ 3.10

$FPB_1 = a_7 FINPB + e_7$ 3.11

$FPB_2 = a_8 FINPB + e_8$ 3.12

$FPB_3 = a_9 FINPB + e_9$ 3.13

$FPB_4 = a_{10} FINPB + e_{10}$ 3.14

$FPB_5 = a_{11} FINPB + e_{11}$ 3.15

$FPB_6 = a_{12} FINPB + e_{12}$ 3.16

$ID_1 = a_{13} INVD + e_{13}$ 3.17

$ID_2 = a_{14} INVD + e_{14}$ 3.18

$ID_3 = a_{15} INVD + e_{15}$ 3.19

$ID_4 = a_{16} INVD + e_{16}$ 3.20

$ID_5 = a_{17} INVD + e_{17}$ 3.21

$ID_6 = a_{18} INVD + e_{18}$ 3.22

$PP_1 = a_{19} PROPP + e_{19}$ 3.23

$PP_2 = a_{20} PROPP + e_{20}$ 3.24

$PP_3 = a_{21} PROPP + e_{21}$ 3.25

$PP_4 = a_{22} PROPP + e_{22}$ 3.26

$$PP_5 = a_{23}PROPP + e_{23} \quad 3.27$$

$$PP_6 = a_{24}PROPP + e_{24} \quad 3.28$$

FINK, FINPB, INVD and PROPP are financial knowledge, financial planning behavior, investment decision and propensity to plan respectively. All of these factors are latent constructs. Their corresponding observed variables are: FK_1, FK_2, FK_3, FK_4, FK_5, FK_6, FPB_1, FPB_2, FPB_3, FPB_4, FPB_5, FPB_6, ID_1, ID_2, ID_3, ID_4, ID_5, ID_6, PP_1, PP_2, PP_3, PP_4, PP_5, PP_6 which represent array of questions drafted (see attached questionnaire) to collect values from respondents. Each of these expressions was subjected to a Likert's scale, of which respondents were made to choose from strongly disagree (1), disagree (2), partially agree (3) partially disagree (4), agree (5) and strongly agree (6). Each of the b_s (b_1, b_2, b_3, b_4, b_5 and b_6) parameters (coefficients) show the strength of the relationship between the variables, while each of the a_s (a_1, a_2, a_3, ………. a_{24}) parameters (factor loading values) represents the strength of the relationship between latent variable and its associated observed variable; while ($h_{1......}h_6$) are the variance or disturbance terms relating to the structural equations (other factors that can influence the latent constructs that are not included in the equations), while ($e_{1.......}$ e_{24}) are the error/disturbance terms relating to measurement equations. The latent variables and disturbance terms are bounded by ellipsis or cycles, but the observed variables are bounded by squares in the attached Path Diagram showing the influence of the measurement variables on the instruments.

4.0 Data Presentation and Analysis

4.1 Pre-Estimation Test

Table 4.1A

Test for validity (Financial Knowledge)

Descriptor	Initial	Extracted Value (K)	K^2
FK1	1	0.854	0.729
FK2	1	0.996	0.992
FK3	1	0.925	0.885
FK4	1	0.954	0.910
FK5	1	0.722	0.521
FK6	1	0.831	0.690
SUM. 4.727			
AVE. 0.788			

Table 4.1B

Test for validity (Financial Planning Behavior)

Descriptor	Initial	Extracted Value (K)	K^2
FPB1	1	0.894	0.799
FPB2	1	0.806	0.649
FPB3	1	0.782	0.611
FPB4	1	0.747	0.558
FPB5	1	0.871	0.759
FPB6	1	0.805	0.648
SUM. 4.024			
AVE. 0.671			

Table 4.1C

Test for validity (Investment Decision)

Descriptor	Initial	Extracted Value (K)	K^2
ID1	1	0.893	0.797
ID2	1	0.974	0.950
ID3	1	0.829	0.687
ID4	1	0.726	0.527
ID5	1	0.655	0.429
ID6	1	0.843	0.710
SUM. 4.100			
AVE. 0.683			

Table 4.1D

Test for validity (Propensity to Plan)

Descriptor	Initial	Extracted Value (K)	K^2
PP1	1	0.784	0.614
PP2	1	0.707	0.500
PP3	1	0.945	0.893
PP4	1	0.684	0.420
PP5	1	0.628	0.394
PP6	1	0.862	0.743
SUM. 3.564			
AVE. 0.594			

Source: Field Survey, 2021

The researcher used SPSS to extract values for each construct variable and conducted validity test to establish the convergent validity of the instrument using the average variances extracted (AVE) with a threshold of 0.5. The test of validity as shown on tables 4.1A-D shows that the AVE value in each construct is above the threshold of 0.5; this implies that the instruments have the ability to measure the latent construct they are related to in this study.

Table 4.1E

Composite Reliability (CR) Test

Construct	CR VALUE
Financial Knowledge	0.966
Financial Planning Behavior	0.924
Investment Decision	0.927
Propensity to Plan	0.896

Source: Field Survey, 2021

Using the Composite Reliability Calculator by Raykov (1997), the researcher computed the composite estimates reliability based on standardized factor loading and error variance. From table 4.1E above, the CR values ranges from 0.896 to 0.966. Since the threshold for acceptance is 0.6 and above, there is evidence to say that the extracted instruments are internally consistent with the loaded latent variables. Thus, the pre-estimation test is absolutely in support of the SEM adopted in this study.

4.2 Estimation Test Results

The four constructs proposed for SEM in this study were estimated with the aid of AMOS. The results of all the hypotheses using Maximum Likelihood Estimation Technique, are presented in table 4.2A below.

Table 4.2A

Test of Hypotheses 1 and 2 of the Study

S/N	Latent variable	CE	SE	CR	P
1.	FINK → INVD	-0.092	0.135	-0.681	0.496
2.	FINPB→PROPP	0.851	0.172	4.943	0.000
3.	FINPB→INVD	0.925	0.185	5.010	0.000
4.	FINK →PROPP	0.125	0.131	0.955	0.339

Table 4.2B

Test of Hypothesis 3 (The Joint Effects)

	FINPB	FINK	PROPP	INVD
PROPP	O.851	0.125	0.000	0.000
INVD	0.925	-0.092	0.000	0.000

Source: Field Survey, 2021

Note that in table 4.2A above, CE = Coefficient Estimate; it shows the strength and magnitude of direction of relationship, SE = standard error; it reflects error in measurement where a lower value shows that the measurement error is minimal, CR= Critical Ratio with a threshold of 2.0 shows that the coefficient estimate is significant in measuring the relationship, while p value = level of significance of construct variable with a threshold of (≤ 0.05). The potentials of the SEM enable the researcher to estimate the four equations that are constructed using only the latent variables.

Hypothesis 1 (H_1). Financial Knowledge significantly influences Investment Decisions. Using the estimate of the first equation in table 4.2A, the coefficient estimate of -0.092 and a large p-value of 0.496 (49.6%) provides evidence that there is no significant directional causation between financial knowledge and investment decision. Therefore, the null hypothesis is not rejected.

Hypothesis 2 (H_2): Financial Planning Behavior has a significant effect on Propensity to Plan. As reflected in the second equation, a coefficient estimate of 0.851 and p-value of 0.000 justify the convention that financial planning behavior influences propensity to plan for retirement. Thus the null hypothesis is rejected.

Hypothesis 3 (H_3): There is a joint effect of financial literacy variables on retirement planning variables. From table 4.2B above, financial knowledge and financial planning behavior directly contribute 12.5% (0.125) and 85.1% (0.851) respectively that is, 97.6% (0.976) joint contribution to propensity to plan for retirement. Financial Knowledge and Financial Planning Behavior have negative -0.092 (-9%) and 92.5% (0.925) direct influence on retirement investment decision respectively. However, even though financial knowledge has a direct negative effect, it has together with financial planning behavior a combine effect of 83.3% (0.833) on retirement planning. Hence, the null hypothesis is rejected.

The SEM model also established that there is a significant relationship between financial planning behavior and investment decision in planning for retirement with a coefficient estimate and p-value of 92.5% (0.925) and 0.000 respectively while with a coefficient estimate of 12.5% (0.125) and a large p-value of 33.9% (0.339), there is no significant relationship between financial knowledge and propensity to plan for retirement; but there exists a positive relationship.

4.3 Post Estimation Test

The Researcher used AMOS to carry out the post estimation test which is based on the Maximum Likelihood Estimation Technique (ML). The computed value is reported in table 4.3 below.

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	0.769	0.727	0.863	0.835	0.86
Saturated model	1		1		1
Independence model	0	0	0	0	0

The post estimation test is used to check the appropriateness of the SEM model adopted for this study. As revealed in the table above, the Tucker Lewis Index (TLI) under independence model (as adjusted by the SEM model) is approximately 0%. Given a threshold of less or equal 6%, there is evidence to conclude that the estimated model for this study has a sound relative fitness.

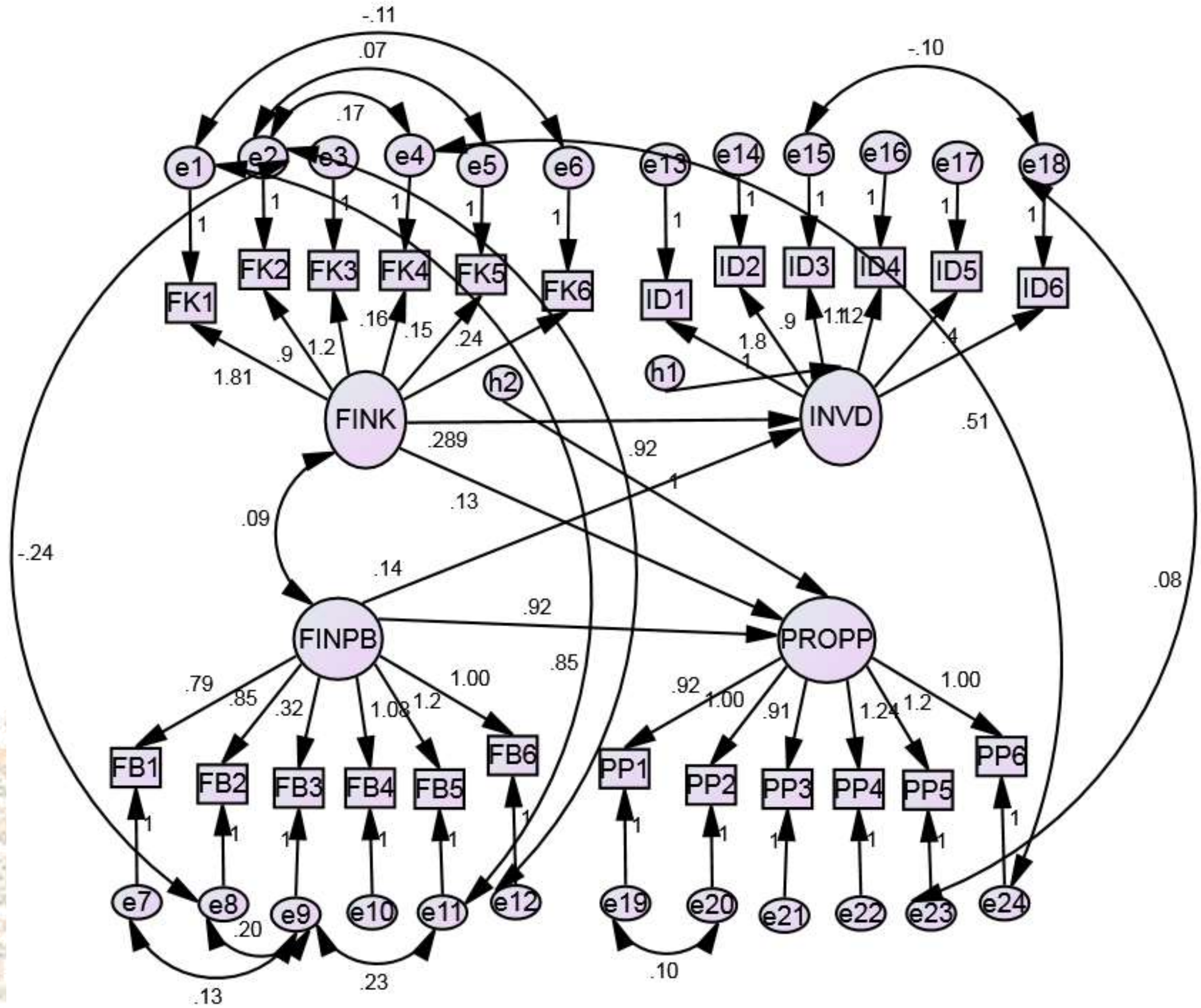

Figure 1. The Path Diagram showing the influence of the measurement variables on the constructs**.**

5.0 Discussion of Findings

Three objectives were proposed for this study, which are achieved by testing the specified hypotheses. The first objective of the study is to examine if investment decision can be influenced by financial knowledge. To achieve this, the first hypothesis of the study was tested and the result reveals that financial knowledge described as stock of knowledge related to essential personal finance concepts cannot significantly drive investment decision in planning for retirement without its application. However, this contradicts Chen and Sun (2021) who investigated the effect of consumer financial knowledge on retirement planning behaviors in China and found that financial knowledge presents a positive effect on retirement planning behaviors and that consumers with a high level of financial knowledge tend to perform desirable retirement behaviors as investing.

The second objective is to investigate the effect of financial planning behavior on propensity to plan. The tested hypothesis shows that there is a significant relationship between financial planning behavior and propensity to plan for retirement and this is consistent with earlier result by Olajide et al. (2020) who carried out a study on the effects of financial literacy on personal investment decisions and observed that financial behavior influences retirement planning and vice-versa. In other words, financial behavior has positive impact on retirement planning. This is why people who have good financial behavior often have enviable retirement plans that consequently sustain reliable cash flows and allow them enjoy financial independence at retirement.

The third objective is to examine if there is a joint effect of financial literacy variables on retirement planning variables and the tested hypothesis establishes that there is indeed a joint effect of financial literacy variables on retirement planning variables. This aligns with Kadir et al. (2020) who examined retirement planning behavior among workers in Klang Valley with regards to financial literacy, saving behavior, personal attitude and goal clarity and found that financial knowledge backed with necessary financial behavior has a significant effect on retirement planning behavior in Malaysia and useful indicator to promote higher retirement confidence; and the implication is that individuals who aim for good future retirement and give attention to their financial planning decisions with the necessary financial knowledge has tendency to practice good financial behavior when they retire.

The study also finds out that there is positive/significant relationship between financial planning behavior and investment decision geared towards retirement planning. This means that decision to invest towards retirement increases with every rise in financial planning behavior. The study also reveals that there is no significant relationship between financial knowledge and propensity to plan for retirement; but there exists a positive relationship.

5.1 Conclusion

Based on the major findings, the researcher draws the following conclusions. There is evidence to show that aside from financial literacy, there are other moderating factors capable of affecting retirement planning among employees in the banking sector such as demographic and socio-economic characteristics and availability of the required information that will enhance informed decision making in planning for retirement. There is evidence to conclude that financial planning behavior is a key factor in retirement planning and respondents tend to agree with items measuring retirement planning from the perspective of financial behavior. Thus Financial planning behavior has a significant effect on retirement planning variables. Although, financial knowledge predicts financial numeracy and one is required to be savvy in financial numeracy; however, if its application is not deployed in planning for retirement, it will not serve any purpose. Lastly, a good strategy to enjoy financial independence in the future is to have desire for less consumption and more of assets now; and proactively and regularly engage in the process of planning to have a retirement plan in place to avoid untold hardship in one's post retirement life.

5.2 Recommendations

The researcher presents the recommendations of this study in order of priority as follows.

(i) Employees of any organizations should endeavor to identify financial behaviors that are capable of supporting their personal finance management practices.

(ii) Employees should ensure a good income appropriation and budgeting strategy to avoid distortion in their goal of accumulating wealth.

(iii) Employees should endeavor to be financially discipline and be futuristic by setting aside fund for the future rather than living only for the economic moment as evidence has shown that many retirees today are facing untold hardship as a result of lack of planning for their future.

(iv) An average employee should have it at the back of his/her mind that pension salary is not and can never be enough to pay bills; hence, there should be plan to generate income from other source/s by investing in income generating assets.

(v) Finally, employees should endeavor to attend seminars or workshops where issues on personal finance management and process of achieving successful retirement are being discussed.

5.3 Contribution to knowledge

By this study, the researcher has been able to contribute to the limited literature on the relationship between retirement planning and financial literacy in Nigeria.

5.4 Suggestion for further Research

The study has laid a foundation to further investigate the moderating effects of the demographic and socio-economic characteristics on the relationship between financial literacy and retirement planning.

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