KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

THE EFFECT OF FINANCIAL LITERACY ON RETIREMENT PLANNING AMONG YOUNG ADULTS: THE ROLE OF GENDER By

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A Thesis submitted to the Department of Accounting and Finance, School of Business in partial fulfilment of the requirements for the degree of

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DECLARATION

I hereby declare that, this MSc. thesis titled "the effect of financial literacy on retirement planning among young adults: the role of gender" submitted to the Department of Accounting and Finance, School of Business – Kwame Nkrumah University of Science and Technology, is my original work prepared under the supervision of my supervisor. I have made due acknowledgement of all ideas and information borrowed from various sources in writing this thesis. The results and findings of this thesis had not been submitted anywhere nor had it been used for the award of any degree. I shall solely be responsible if any evidence is found contrary to this declaration.

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DEDICATION

I dedicate this work to God Almighty for seeing me through this study successfully.

My Halleluja to you God.

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ABSTRACT

The study's goal is to investigate the impact of financial literacy on retirement planning and how gender and financial behaviour may influence this relationship. Descriptive and cross-sectional study designs were employed for this investigation. Utilizing a quantitative research approach, this study was carried out. A purposive sampling strategy was used to choose 300 participants. A structured interview guide is the principal data collection method. SPSS vs26 and SmartPLS 4 were used for the data analysis. Descriptive and inferential research approaches were used to analyse the data. The outcome demonstrates that there was a positive, significant direct impact on financial behaviour and retirement planning. The outcome also demonstrates that the connection concerning financial literacy and retirement planning is positively mediated by financial behaviour. The results also show that gender does not moderate the connection concerning financial literacy and retirement planning. The large mediating influence of financial behaviour indicates the need for practical, hands-on financial seminars or programmes to assist retirees in using their financial literacy.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the most important issues in the life of a person is retirement. Retirement usually depicts a period of rest in a worker or a person's life. This is the period where the person withdraws from the stress and exertion of a job and spends sufficient time with their friends and relatives (MacBean, 2007; Asamoah, 2012; Browne et al., 2019; Tan and Singaravelloo, 2020; Agabalinda and Isoh, 2020; Niu et al., 2021; Safari et al., 2021). It is expected that after spending between thirty to forty years working for a salary, the worker would have made proper arrangements for financial stability without sole reliance on pension income. It is, however, the opposite case among many people in developing countries of which Ghana is no exception. In most cases, retired workers are poor, needy and destitute and most times depend on their meagre pension pay (Konyim, 2011; Asamoah, 2012). According to Aninakwa (2016), beginning retirement could be likened to starting a new job. It is associated with learning new things, new opportunities and challenges as well as new rules and regulations. In this regard, it is imperative to face new personal and lifestyle issues which include financial realities. Retirement is inevitable in both public and private sectors (Kissi, Dai, Boamah, Owusu-Marfo and Asare, 2018).

According to continuity theory, retirement will be more stressful for more individuals because of the void left by its former pivotal and significant position, and the overall level of happiness will fall as a result (Forster and Morris, 2012). In addition, this theoretical model assumes that people must maintain the same actions and relationships after retirement so as to maintain existing external and internal structures. It is believed that older people use various mechanisms to maintain this continuity and stay in touch with their previous experiences (Wlodkowski and Ginsberg, 2017).

In Ghana, the overall literacy rate for adults was estimated to be 79% in 2021, according to World Vision (2021). The percentage of the population over the age of 15 that can read and write a short, basic communication about their everyday life and have it be understood is reflected by this indicator. Financial education programs, on the other hand, are virtually non-existent in most African countries, including Ghana (Safari et al., 2021). In 2008, a national financial education program was approved by the government. This initiative intends to provide the general public with financial knowledge that will enhance their lives by allowing them to make better financial decisions. The national financial education program is being implemented slowly, which could lead to poor financial decision-making among the population. For the national financial education program to be implemented, the World Bank is expected to back Ghana's Central Bank in establishing key benchmarks (World Bank, 2018). Luzolo (2016) reports that the percentage of the African population covered by social security is the lowest in Sub-Saharan Africa. With only 15.6% of the population covered by social security, the country lags far behind the international average of 40.2%. The people of Africa would benefit greatly from a strengthening of the continent's social safety net. As a result of low pensions and other forms of social support, millions of retired Africans are struggling to get by. The labour conditions that they were forced to endure were appalling.

According to research published in 2016, Luzolo shows that the government entity in charge of collecting retirement offers inadequate pensions due to lower contributions by workers during active service. In Sub-Saharan Africa however, Ghanaian workers contribute 13.5 percent of income towards retirement which is relatively a high figure when compared to other countries within the region. The Congo Republic contributes 2.5%, the Gambia 7.5%, and Morocco 6.25 %. It has been found that people who grew up in financially literate homes tend to have more positive social attitudes and a less risk-averse perspective on their own financial planning and management. They think that if they plan ahead for their projects and future expenditures, they will be able to keep their finances healthy and successful. A large body of research, including that of Lin et al. (2017), demonstrates that financial literacy aids in the process of preparing for retirement. Retirement planning is a priority for those who have a solid grasp of personal finance. While the people of Ghana wait for the nation's financial education programme to be enhanced, the influence of financial literacy on retirement planning among young individuals is an important topic to investigate.

Although people of all ages have money problems, young adults may have it the worst because that's when they start using credit cards, have their first experiences with bills and debt, and become more financially independent (Xiao et al., 2009). Young adults should take care of their money because making a mistake now might delay their future financial planning and shape their attitude and behaviour about money for the rest of their lives (Lusardi et al., 2009). With so much at stake, experts have dedicated significant time and energy to finding ways to help young adults better manage their money (Shim et al., 2010). Many different theoretical frameworks have been used in the past to build models of consumer finance (Topa et al., 2018; Farrar et al., 2019; Brau et al., 2019; Rai et al., 2020; Pahlevan Sharif et al., 2020; Sharif and Naghavi, 2020; GallegoLosada et al., 2022). The aim of this research is to determine whether or not high levels of financial education influences the retirement savings decisions of young adults in Ghana.

1.2 Problem Statement

Today, financial future responsibility is a shared responsibility. As a result, employees must be aware of financial issues in order to secure a brighter future when they retire from work.

Literacy can heighten anxieties about insufficient pension resources, increasing levels of commitment, and personal disintegration, according to Way and Holden (2009). According to Chowa, et al. (2010), Ghanaian youth have very low financial literacy rates. A study by the United States Institute for International Development (2009) cited in Oppong-Boakye and Kansaba (2013, p. 39) found a 44 percent financial literacy among Ghanaians. A major problem among several youths in Ghana has to do with establishing a direct link among the financial literacy levels of workers, available savings and investment packages and how these can be used as a retirement planning tool.

The challenges above encourage researchers to conduct research to assess literacy in the financial sector and to provide practical suggestions to improve their literacy and financial status in the country in general. Though research on financial literacy and retirement planning/preparedness exists (Asamoah, 2012; Browne et al, 2019; Tan and Singaravelloo, 2020; Agabalinda and Isoh, 2020; Niu et al., 2021; Safari et al., 2021; Rodrigo, 2021; Janposri, 2021; Sarpong-Kumankoma, 2021; Mata, 2021; Gallego-Losada et al., 2022), just a few are conducted in Sub-Saharan Africa. Additionally, none of these studies has focused on young adults in the Sub-Sahara Africa region, where youth are faced with many financial issues. To address these gaps, this research sought to contribute and understand how financial literacy affects retirement planning with an empirical focus on young adults in Ghana.

Again, this study envisages that individuals' financial literacy will shape their financial behaviour and thus drive its effect on retirement planning. This study also aims to explore the mediating role of financial behaviour in the relationship between financial literacy and retirement planning among employees of commercial banks in the context of developing economies.

Few studies use theoretical approaches to understand the role of financial literacy in shaping financial behaviour and financial well-being (Zhao et al., 2020).

Finally, research into gender differences in retirement preparedness has focused on how men and women approach retirement planning differently. Findings suggest retirement preparation greatly improves financial security in old age (Topa et al., 2018; Farrar et al., 2019; Tan et al., 2020; Sabri et al., 2021; Naiwen et al., 2021). As long as they prepare ahead, women can narrow their savings gap for retirement. According to other studies, financial knowledge is a key factor in deciding how to save for old age (Browne et al., 2019; Tan and Singaravelloo, 2020; Agabalinda and Isoh, 2020; Niu et al., 2021; Safari et al., 2021 Rodrigo, 2021; Janposri, 2021; Sarpong-Kumankoma, 2021). Some researches indicate that there are differences between the sexes in financial literacy and retirement planning (Moen, Erickson, Argawal, Fields and Todd, 2000; Quick and Moen, 1998), while other research suggests that these differences are either not substantial or are diminishing over time (Noone et al., 2010; Petroska and Earl, 2009). It's possible that the lack of variables that capture other important features of planning behaviour accounts for the inconsistency of these results.

Since financial literacy is a component of pension planning, and pension planning results in improved wealth and income stability in old age, it stands to reason that the two are positively correlated. According to research, females have a lower level of financial literacy than males and make fewer retirement savings plans. This means that efforts to increase female's financial literacy are socially valuable. Attitudes and expectations based on work patterns and life history are not treated as neutral in existing studies, which may influence planning behaviour.

To better understand the connections between gender and retirement planning, as well as other important factors, this study seeks to shed light on the role of attitude and expectation variables as predictors of such planning. This study is one of the few attempts to unearth how financial literacy and financial behaviour could enhance retirement planning among employees in Sub-Saharan Africa, a developing region. Even though scholars have researched and contributed in the area, the growth is still slow, hence, there is a need for more studies in the area (Allsop et al., 2021; Zhao et al., 2020). The outcome of the study will therefore provide relevant information to various stakeholders including government and policymakers on the need to improve financial education and how this could enhance retirement planning among youth in Ghana.

1.3 Objectives of the Study

This study seeks to examine the effect of financial literacy on retirement planning, and how this relationship could be mediated via financial behaviour and moderated by gender. To achieve the main objective, the research envisages;

1. To examine the effect of financial literacy on retirement planning among young adults in Ghana.
2. To evaluate the influence of financial literacy on financial behaviour among young adults in Ghana.
3. To explore the mediating effect of financial behaviour in the relationship between financial literacy and retirement planning among young adults in Ghana.
4. To explore the moderating role of gender effect on financial literacy on retirement planning among young adults in Ghana.

1.4 Research Questions

In other to achieve the main objective of the study, the research seeks to answer the following:

1. What is the effect of financial literacy on retirement planning among young adults in Ghana?
2. What is the influence of financial literacy on financial behaviour among young adults in Ghana?
3. What is the mediating effect of financial behaviour in the relationship between financial literacy and retirement planning among young adults in Ghana?
4. How does gender moderate the effect on financial literacy on retirement planning among young adults in Ghana?

1.5 Significance of the Study

This study is important for several reasons. Firstly, the research seeks to assess determinants of retirement planning among employees in the banking industry. Thus, the findings of this study will be of help to SSNIT as it will unveil the various reasons that account for the low retirement planning among employees.

The study's findings are crucial because they will educate and raise awareness among workers, particularly in the banking sector, about government policies about the need to be financially literate.

This research will also serve as current literature for academic purposes. Lecturers and students can use the findings of this study as reference material and a study book respectively, particularly those interested in financial knowledge, compliance and related area.

Furthermore, academics would like to contribute to the advancement of studies on pension administration and related issues, specifically financial knowledge and compliance among employees.The outcome of study will therefore provide relevant information to various stakeholders including government and policymakers on the need to improve the financial education and how this could enhance retirement planning among young adults in Ghana.

1.6 Scope of the Study

This study focused specifically on the effect of financial literacy on retirement planning, and how this relationship could be mediated via financial behaviour and moderated by gender. Even though various issues affect retirement planning, this study was limited to examining the financial literacy on retirement planning and how this relationship could be mediated via financial behaviour.

1.7 Research Methodology

The study employs the quantitative approach to examine the effect of financial literacy on retirement planning, and how this relationship could be mediated via financial behaviour and moderated by gender. In doing that, the study employed a survey research design to gather primary data from young adults between 18 and 35 years of age in Ghana. A sample of 300 young adults between 18 and 35 years of age in Ghana will be included in the study. Data collected will be analysed using both descriptive and inferential statistics. The analyses will be done using SPSS version 26 and Smart PLS version 3. While the SPSS was used for the descriptive statistic, Explorative Factor Analysis (EFA) and regression estimates, the PLS-SEM will be used for the Confirmatory Factor Analysis (CFA).

1.8 Organisation of the Study

The research is divided into five sections. The first chapter covers the background of the study, the statement of the problem, the study's objectives, research questions, the study's importance, the study's scope and limitations, and the study's organisation. The literature review is the second chapter. This chapter examines relevant literature on the subject at hand. The research approach is discussed in the third chapter. The methods for collecting and analysing data are described in detail. The fourth chapter deals with the data analysis and interpretation. The summary of facts, conclusions formed, and recommendations made to improve the situation are discussed in the final chapter, which is chapter five.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews related literature to the study and it focuses on the explanation of concepts, theoretical review, empirical reviews, and concludes with a summary of the study.

2.2 Conceptual review

2.2.1 Financial literacy

Financial literacy is defined by Krishnakumare, Singh, and Niranjan (2019) as "the ability to analyse new and complex financial instruments and make intelligent decisions on the choice of instruments and the amount of their use that would be in their own best long-term interests". Lusardi and Mitchell (2011) also define financial literacy as "knowledge of essential financial concepts and the ability to do simple computations." Lusardi (2015) also added that financial literacy is the capability to process economic information and arrive at correct conclusions in the areas of financial planning, making wealth, debt and pensions.

Furthermore, Financial literacy is defined as "knowledge and understanding of financial concepts and risks, as well as the skills, motivation, and confidence to apply such knowledge and understanding to make effective decisions across a variety of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life" by the Organization for Economic Cooperation and Development (OECD, 2014). Financial literacy can also be explained as how human beings manage money in respect of insurance, investment, savings, and budgeting. Bucher-Koenen and Lusardi's (2011) research publicize that financial planning and financial literacy significantly share a positive effect on households' retirement planning. Mireku (2015) insistently refers to financial literacy as a combination of skills and knowledge that permits a personto make the knowledgeable and correct decision based on his or her understanding of finance.Remund (2010) continues that the concept of financial literacy far exceeds having the knowledge, it showcases competencies needed in handling a person's money from the day of accumulation to the stage of spending.

The OECD focused on three essential aspects of financial literacy: financial behaviour, financial knowledge, and financial attitude (OECD INFE, 2011; OECD, 2014). Higher achievement in the following domains has been linked to higher levels of financial literacy among the general population: savings (Agarwalla et al., 2019; Klapper et al., 2012), numeracy (Jariwala, 2013; Lusardi and Mitchell, 2011), earnings on savings, identifying bank accounts giving higher interest rates (Deuflhard, Georgarakos, and Inderst, 2019), risk diversification and risk tolerance (Jariwala, 2013; Yu et al., 2015). Many studies have also indicated that persons who are financially literate are more likely to save for retirement, to participate in the stock market and other formal financial markets, to have a higher spending capacity during times of crisis, and to be better able to weather the effects of macroeconomic and income shocks (Klapper et al., 2012; Koenen et al., 2016).

2.2.2 Financial behaviour

A person's behaviour will have a big impact on his financial well-being. Due to this, it is essential to gather proof of the financial literacy measure's behaviour dimension (OECD, 2013). People whose behavior projected a high financial lieteracy were more likely to participate in the stock market and other regulated financial markets (Bucher-Koenen et al., 2016;Klapper et al., 2012), consciously save (Klapper et al., 2012; Agarwalla et al., 2013), make timely bill payments, thoroughly examine financial products, prefer savings than borrowing in time of crisis (Agarwalla et al., 2013) plan for retirement (Herd et al., 2012), accumulate and utilize resources well, favour low-cost borrowing (Huston, 2012), plan and monitor household budget and personal finance (Agarwalla et al., 2013), have a formal credit card (Klapper et al., 2012), have a bank account, make good financial decisions and have high spending capacity (Klapper et al.,2012).

2.2.3 Financial Knowledge

In general, financial knowledge shows a person who is interested in financial matters. According to Abdullah and Azam (2018), financial knowledge is an individual's capacity to grasp and evaluate simple and advanced facts relevant to personal or commercial financial concerns. However, the term knowledge does not have a universally agreed definition; rather, it is used in context (Abdullah and Azam, 2018). Financial knowledge, in the context of this study, refers to an individual's grasp of fundamental and sophisticated financial facts to make sound economic judgments. It is assumed that a person with financial expertise will use it to make financial decisions. This implies that the information will serve as the foundation for making financial decisions that will positively impact retirement planning. Evidence suggests that the majority of university graduates lack expertise in personal finance (Robb, 2011).Adults today take excessive risks yet have an insufficient grasp of fundamental money and are more prone to face financial issues (Worthy et al., 2010). Robb and Woodyard (2011) discovered that financial knowledge improves individuals' financial behaviour and decisions. Because adults are anticipated to retire freely or involuntarily, there are aspects of uncertainty and the need to make sound financial decisions that will result in future financial rewards. The study anticipates that financial knowledge will positively affect retirement planning. Aside from the data demonstrating a clear association between financial literacy and retirement planning, financial illiteracy has a detrimental impact on the entire country (Arrondelet el., 2014). Arguably, insufficient financial knowledge is contributing to the rise in divorce and suicides. According to Sabitova and Muellller (2015), financial knowledge is essential for personal well-being as well as a country's economic progress.According to the study, proper financial knowledge and education should not be limited to business or finance students solely, because money decisions cannot be avoided in our everyday lives regardless of a person's subject of study.

2.2.4 Financial Attitude

A person's financial attitude is defined as their proclivity for financial concerns. Having a savings strategy and a cushion for unexpected expenses is crucial. According to Bhushan and Medury (2014), the emphasis should be made on promoting favourable financial attitudes among the people to increase citizens' financial literacy. Ajzen (1991) concluded that the economic and noneconomic conceptions of decision-financial makers have an impact on their attitudes and that these attitudes are the outcome of the decision-makers' behaviours.According to Ibrahim and Alqaydi's (2013) results, education can enhance a person's financial perspective, which will go a long way toward reducing a person's reliance on borrowing money. Individuals' financial well-being can be influenced not just by their attitudes and behaviours toward money, but also by those attitudes and behaviours. An individual's financial attitude affects their behaviour in all areas of personal finance, including but not limited to investing, saving, and spending. (Mien & Thao, 2015), whereas Mehta (2021) argues that one's financial attitude affects one's propensity to spend, hoard, and squander money.

2.2.5 Retirement planning

Retirement planning is defined as preparing for the time when an individual will leave the labour force, employment, or vocation, knowing that income from such sources would end (Tomar et al., 2021). It may also be defined as actions designed to simplify current expenses and investments in preparation for a financially secure retirement. Previous research suggests a substantial relationship between financial literacy and retirement planning (Boisclair et al., 2015; Clark et al., 2017; Kumar et al., 2018).Retirement planning is thought to be a significant motivator for a savings culture (Anderson et al., 2017). A sufficient amount of money gives a person the confidence to live a nice and financially secure retirement (Tomar et al., 2021).Proper retirement planning, as argued by Wijekoon, Sabri, Ahmad, and Abdul (2022), is highly dependent on the individual's choice of savings and investment strategies. However, when faced with uncertainty, humans often make irrational choices (Das, Ostrov, Radhakrishnan, and Srivastav, 2022). To some extent, the irrationality may be reduced if people were rewarded for what they know about money, retirement plans, and insurance.Cautionary savings and retirement planning as a result of greater financial literacy enhance an economy's financial soundness since employees can relieve the government of the cost of supporting pensioners suffering financial challenges in the country. Thus, retirement savings will enable people to acquire money to sustain their retirement lives (Mireku, 2015). Hershey et al. (2013) attempt to characterise the motivating aspects of good retirement planning and identify capacity, willingness, and opportunity as necessary components. The term "motivators" (capacity, willingness, and opportunity) is offered by (Hershey et al., 2013).

2.2.5.1 Capacity

Capacity refers to the cognitive characteristics, ability, comprehension, and knowledge that distinguish two people from one another. According to this study, one's level of financial literacy is a distinguishing element in making logical financial decisions.

2.2.5.2 Willingness

This refers to the psychological and emotional aspects that motivate people to begin retirement planning over time. It comprises an individual's self-esteem, attitude, clarity of financial and retirement objectives, personality traits, beliefs, values, and morals.

2.2.5.3 Opportunity

It consists of things over which the individual has no control. They are external routes available for workers to plan for retirement. Pension plans, investment opportunities, stable financial markets, pension regulations, tax exemption laws, and favourable fiscal policies are among them. According to this study, an opportunity is merely an external facilitator of retirement planning in one's nation.

2.2.6 Pension Knowledge

According to Clark et al. (2017), firms provide retirement packages for four primary reasons: to recruit, retain, motivate, and retire employees. Despite this, many people in numerous nations, including Ghana, are unfamiliar with financial difficulties (Lusardi and Mitchell, 2013). Allen (2010) discovers that people who are eligible for retirement in prominent organisations are unfamiliar with pension and social security systems. Individuals will struggle to save and invest in retirement portfolios unless they get aware of pensions (Clark et al, 2017). Individuals are in a better position to make informed decisions about their retirement when they are familiar with the ins and outs of their country's pension system (Pratt and Soest, 2016). Landerretche and Martinez (2013) discover a beneficial influence of pension awareness on retirement savings in Chile, as well as the availability of optional pension options to employees. According to Boisclair et al. (2015), pension knowledge has a considerable beneficial influence on retirement planning in Canada.

According to current literature, pension knowledge is limited in many nations; yet, pension knowledge is abundant in countries where individuals engage in their pension plans (Landerretche and Martinez, 2013). Because the younger generation believes that retirement is far away, they are unable to create retirement goals in the early stages of their careers (Hershfielf et al., 2011).

2.2.7 The role of Gender in Financial Literacy and Retirement Planning

Gender is a social concept that describes differences in how men and women act and think. According to a recent analysis of the available literature, differences in financial literacy based on gender have been claimed to exist (Çera and Tuzi, 2019).When it comes to planning for retirement, women have certain needs that are often disregarded. Women have unique considerations to make, including the fact that they will have less time to work as a result of childbearing, caregiving, and spouses' social security (since women live longer than men). All of the following can have a significant impact on a person's retirement savings if they are under or not allocated at all. Successful retirement planning is essential to amassing sufficient retirement resources. Some 30.9% of women aged 50 and over are casual planners (having done at least one retirement savings calculation), 20.3% are serious planners (having formed a plan), and 17.4% are committed planners (having developed a plan and following it), according to studies (Kumar, Tomar, and Verma, 2018). It has been proposed that retirement programmes should be differentiated based on gender to better accommodate theneeds of women, who are statistically more likely to be unprepared for their golden years. Additionally, males tend to be more financially literate than women, which can have a significant impact on retirement planning. Retirement is seen as an inevitable part of life by most men (Grace et al, 2010), even if women are more financially prudent. As a result, men are just as unprepared for retirement as women are since they choose to ignore the topic altogether because of this attitude. Women are acutely aware that unanticipated challenges may arise throughout their lives, possibly jeopardising their financial security in retirement. Women may be more likely to prioritise saving for the short term rather than retirement if they are aware of these barriers to saving. These problems may also affect people's tendency to save money (Jayasekara, B Fernando, and Ranjani, 2020).

Gender differences influence the disparities in savings behaviour between men and women. Jonubi and Abad (2013) discovered that there are significant gender differences in saving behaviour and retirement planning readiness. Previous research has also revealed that there are significant gender differences in saving behaviour (Lei, 2019). Women are more likely than males to be less financially aware and have lower savings inclinations; also, women are more risk-averse than men when making financial decisions (Lei, 2019; Sent and van Staveren, 2019). Another aspect that contributes to gender variations in saving behaviour is that women are more likely than males to have lower wages (Jonubi and Abad, 2013; Ali, 2021).

2.3 Theoretical review

This section adopts the theory of planned behaviour and expectancy theory

2.3.1 Theory of Planned Behaviour (TPB)

In the Theory of planned behaviour (TPB), Ajzen (1991) theorised that "intentions are governed by three constructs: attitude (ATT) towards the behaviour and perceived behavioural control (PBC)." According to Xiao (2008), "the more positive the attitude toward doing a behaviour, the higher the perceived social approbation, the greater the perceived ease of performance of the activity, and the stronger the behavioural intention and the more probable it is that the conduct will be completed." Intention (I). Why people choose to save and invest their money is a topic of extensive research. Our research delves into what makes people more or less likely to start putting money away now so they may have a comfortable retirement later.A person's "intentions are thought to capture the motivating variables influencing an action and to reflect how hard they are willing to attempt or how much effort they would put to achieve the conduct" (Ajzen, 1991). Since Ajzen (1991) argues that intentions are predictive of actions, it follows that good intentions lead to productive actions. Several studies use the TPB's dependent variable, "investment intention," to gauge plans to spend money on a certain financial product (Nosi et al, 2017).

Attitude (A). According to Ajzen (1985), one's attitude is characterised by the extent to which one has a positive or negative opinion or appraisal of the behaviour in an issue. According to TPB, success with a desired (good) behaviour increases as one's attitude toward that behaviour improves. Ajzen and Fishbein provide an in-depth and critical analysis of the effects of attitude on behaviour (2005). As shown by pioneering works on the topic (McGuire, 1986), social views are powerful motivators of individual behaviour. To begin with, general attitudes have a high degree of correspondence with multiple-act criteria or behavioural aggregates, but they have a low degree of correspondence with single-act behaviours. Second, an appropriate measure of attitude (i.e., attitude towards the conduct) can provide a reasonable predictor of individual behaviour. Based on the TPB model, this is the recommended method for gauging one's disposition. The vast majority of TPB-based research on financial matters (Xiao and Wu, 2006), (Kennedy, 2013), (Nosi et al, 2017) confirms that attitude has a significant and positive impact on intention. Positive attitudes regarding investing in mutual funds translate to greater demand for mutual funds among the investing public (Schmidt, 2010). Davis and Hustvedt (2012) highlighted the importance of a positive attitude regarding one's behaviour in connection to the goal to save for retirement. Nosi et al. (2017) looked at young persons' plans to invest in longevity annuities and found that attitude had the most favourable influence in terms of the odds ratio.

Subjective norms (SN). SN is the interpersonal influence that prompts an individual to choose whether or not to act in a certain way. Individuals' intentions to engage in a certain (money) behaviour can be predicted by the extent to which they feel social pressure from their friends, family, and co-workers to do so. As an illustration, SN is counterfactual to the widespread adoption of credit for everyday purchases. According to Hofmann et al. (2008), moral considerations play a role in investment decisions, and according to Schmidt (2010), when people hear their friends and family members express skepticism or negativity about mutual funds, the hearer may become more skeptical and less likely to make a purchase. If young people are influenced to invest in their retirement by their peers or their families, then both genders are more likely to be open to and plan on investing in pension funds.

Perceived behavioural control (PBC). Individuals' thus both genders' beliefs about their abilities to carry out specific behaviours are what we call "perceived behavioural competence" (PBC). The ability to engage in some behaviours depends on more than just a good mood and the seeming support of one's social circle (Ajzen, 1991). A sample of 328 persons who had previously completed a consumer economics and/or personal finance course was surveyed by Davis and Hustvedt (2012) to determine what factors influence the decision to save for retirement. An individual's sense of agency over their behaviour proved to be the single most significant predictor. For instance, people's tendency to save money was less affected by their typical approaches to managing their finances and wealth than it was among those with lower levels of perceived behavioural control (Davis and Hustvedt, 2012). PBC was found to be the biggest indicator of retirement savings in a sample of young adults, leading Davis and Hustvedt (2012) to advise that the focus of financial education should vary dependent on the individual's degree of PBC.

Perceived control was found to have a significant effect on the intention to purchase longevity annuities for all individuals studied (Nosi et al., 2017).

2.3.2 Expectancy Theory

Lewin (1943) established the foundation for the idea of expectancy, which links an individual's perception with their actions. Additional research by Vroom (1964) and Bolles (1972) built upon this notion to create a theoretical framework for describing the motivational forces behind human behaviour as functions of anticipation, instrumentality, and valence. The possibility that a given action or condition of nature would result in a certain outcome may be explained by the expectation function; hence, performance is a function of the input. Instrumentality is likewise concerned with the link between reward and performance, implying that results is based on performance, whereas valence or utility is concerned with the degree or significance one assigns to the perceived outcome. Mandel and Klein (2007) argue that these features or functions are what drive an individual to generate high-quality work. Because of this, people are influenced to act in a specific manner by the benefits they anticipate from their actions rather than their alternatives. In a nutshell, Oliver (1974) argued that the objective one intends to achieve has a significant impact on their actual behaviour. However, because the theory is about the thought processes related to making better choices, Montana and Charnov (2008) disproved Oliver's notion by demonstrating that, one's behaviour is not simply dependent on predicted consequences. The idea goes on to say that incentives should be proportional to performance and that they should be appropriately provided. The study used expectation theory to deduce the driving forces behind financial education and retirement planning. Following the theory, a person may be motivated to seek financial education if they anticipate benefiting from retirement planning. This is because the probability of a specific outcome, namely financial stability in retirement, may be based on the individual's level of financial literacy. To put it plainly, encouraging young individuals of either gender to increase their knowledge of personal finance in preparation for retirement may be a powerful motivator. As a result, promoting financial literacy may fail if individuals believe it will not result in the desired end, namely, security in an old life. Therefore, an important outcome that an employee hopes to acquire from being financially literate is having suitable retirement plans to fulfill retirement demands, for instance.

2.4 Empirical review

2.4.1 Financial literacy on retirement planning among young adults

Sarpong-Kumankoma (2021) researches the influence of financial literacy on savings and retirement planning in Ghana. Using primary data gathered from a representative sample of employees in the formal sector using probit models, the research examines the impact that financial literacy has on saving for retirement. The empirical findings of the study indicate that majority of people are lacking in financial literacy. Only nearly a quarter of respondents in our survey got all three questions concerning inflation, interest compounding, and risk diversification correct. Individuals with lower levels of financial literacy tend to be younger, older, more likely to be female, make less money, and have lower levels of education. A high likelihood of saving for retirement is also associated with a high level of financial knowledge.

Using UMAT employees as a case study, Achari, Oduro, Felix, and Nyarko (2020) investigate the effect of financial literacy on retirement planning. According to the findings, financial education greatly improves the likelihood of a comfortable retirement. Employees were encouraged to advocate that their employers expand the number of financial education books available at the University Library and implement financial literacy program to better prepare their employees for retirement. Further, the study's results suggest that the Ghanaian school system needs a national strategy on financial literacy to teach individuals from a young age.

Kafari (2019) investigated the impact of financial literacy on retirement planning among Ghana Grid Company workers (GRIDCO). The information was analysed using SPSS version 24 (Statistical Package for the Social Sciences), in which the results showed that financial education had a favourable and significant influence on workers' ability to save for retirement. As a result, the research drew the indisputable conclusion that financial literacy is necessary for making sound, long-term choices about retirement savings.

Safari, Njoka, and Munkwa (2021) examine how financial literacy influences retirement preparation in Bukavu, a city in the Democratic Republic of the Congo (DRC), a developing nation in Sub-Saharan Africa with a deficient pension and social security system. The study found that individuals' financial literacy levels significantly affected their retirement preparations. While financial education and attitudes toward financial products were not shown to be relevant in explaining individual retirement planning, calculation capacity and financial knowledge were found to have a substantial influence.

2.4.2 Financial Literacy on Financial Behaviour Among Young Adults

Pahlevan Sharif, Ahadzadeh and Turner (2020) investigate the relationship between gender and financial information-seeking behaviour and its antecedents among young people in Malaysia. The findings showed that the financial decisions young adults make are heavily influenced by their parents' examples and lessons. Women, on the other hand, owe a great deal of their financial information-seeking behaviour and the financial literacy that resulted from it to their parents' method of teaching through planned behaviour. There was no correlation between financial literacy and better financial decisions, contrary to common belief. Furthermore, it was discovered that boys' financial literacy is negatively correlated with their exposure to parental instruction.

Ameer and Khan (2020) also investigated the relationship between financial socialisation and financial literacy and their financial behaviour. The findings indicate that adult males, in contrast to adult females, tend to have greater levels of financial literacy and confidence due to their unique socialisation experiences in this area. Financial literacy and self-assurance in handling personal money were both greater among those with training in economics and finance. Those who have a high level of self-perceived confidence in their ability to manage their finances but a poor level of financial literacy is more likely to participate in risky spending habits.

Xiao et al. (2014) looked at how college students' financial habits changed as they gained more knowledge about financial planning. Both subjective and objective measures of financial knowledge were used, and risky spending and borrowing patterns were identified and classed as subsets of illiteracy. In their study, they discovered that only subjective knowledge was associated with a decrease in these two aggregate behaviours. Some forms of risky spending and borrowing were lowered by both subjective and objective information. Finally, they discovered that there were persistent differences between two of the control variables: a higher GPA was related to less risky spending behaviours, and males were more likely to engage in risky behaviour of both categories than females.

Yong, Yew, and Wee (2018) investigate the Financial Knowledge, Attitude, and Behavior of Malaysian Young Working Adults. The findings showed that both financial attitude and behaviour were strongly related to the level of formal financial education received. The connection between knowledge and action was moderated, in part, by one's outlook. Analysis showed that future and non-impulsiveness were important in terms of financial attitude, whereas spending monitoring and saving behaviours were crucial in terms of financial behaviour.

Rai, Dua, and Yadav (2019) demonstrated an association between financial knowledge, financial behaviour, and financial attitude with the financial literacy level among working women in Delhi, India. Purposive sampling was utilised alongside a structured questionnaire with a 5-point Likert scale, and the goodness of fit was calculated using AMOS in a structural equation modeling setting (SEM). Path analysis is used to evaluate hypotheses about the relationship between three independent variables. The results showed that working women's financial literacy is more strongly related to their attitudes and actions than their knowledge.

Adam, Frimpong and Boadu (2017) investigate the impact of financial literacy, family support (as an additional source of income), the number of dependents, financial behaviour, and retirement planning on the financial well-being of seniors in Cape Coast Metropolis, Ghana. The findings show that seniors' financial well-being is highly affected by factors such as financial knowledge, family support and retirement planning. The effect of financial literacy on retirees' financial wellbeing is smaller than that of family support and retirement planning. The result indicate that financial literacy and retirement savings programmes need to be encouraged. Not only should policies that foster social unity and family values not be overlooked, but so should those that strive to ensure the greatest possible financial security for retirees.

Garg and Singh (2018) assess the state of financial literacy among young people throughout the globe. Examining whether or whether there is a connection between financial knowledge, financial attitude, and financial behaviour, as well as the impact of socioeconomic and demographic characteristics such as gender, age, marital status, income, etc. on young people's financial literacy levels. Findings from the study raise serious concerns about the lack of financial literacy among young people throughout the world. Additionally, there is an interconnection between financial attitude, financial knowledge, and financial behaviour, and the level of financial literacy of young people varies depending on several socioeconomic and demographic factors such as gender, age, income, educational attainment, marital status, etc.

2.4.3 Financial Behaviour in the Relationship Between Financial Literacy and Retirement Planning Among Young Adults

Henager and Cude (2016) compare how different age groups fared in terms of financial literacy and related behaviours. The level of financial literacy was assessed in three ways: subjective financial knowledge or confidence, objective financial knowledge, and subjective financial management skills. Retirement savings and investment activity were examples of long-term financial conduct, whereas consumption and emergency savings were examples of short-term financial behaviour. When looking at long- and short-term financial behaviour across age groups, subjective financial knowledge or confidence was shown to be more strongly related to objective financial knowledge or subjective financial management abilities. Among those in their latter years, objective financial knowledge was more predictive of sustainable financial habits than subjective and subjective measures of literacy.

2.4.4 Moderating Role of Gender Effect on Financial Literacy on Retirement Planning Among Young Adults

Mata (2021) examines the role of gender as a moderator in the relationship between financial literacy and retirement planning among young adults in Mexico. To prepare for retirement, one might use a variety of methods, including private pension plans, investing in assets, government subsidies, and family support. Logistic regression is the backbone of the GSEMs that were developed using data from the 2018 National Survey on Financial Inclusion to inform the approach. The results show that those with the highest financial knowledge are less likely to rely on passive techniques, while those with a greater sense of financial agency and social belonging tend to engage in more proactive financial planning. Similarly, gender is a major factor in retirement preparation.

Sabri, Abdullah, Zenhendel and Ahmad (2017) determine whether or not gender has a moderating role in the relationships between financial knowledge, money outlook, stress, and capacity. The study used a multi-stage random sampling technique to pick a representative sample from the central region of Peninsular Malaysia, including the states of Perak and Selangor as well as the Federal Territories of Kuala Lumpur and Putrajaya. The findings of a test of the moderating impact in overall models indicate that gender acts as a moderator of the chi-square value. When looking at each path separately, the results showed that gender had no discernable impact on levels of financial stress, money attitudes, or financial competence.

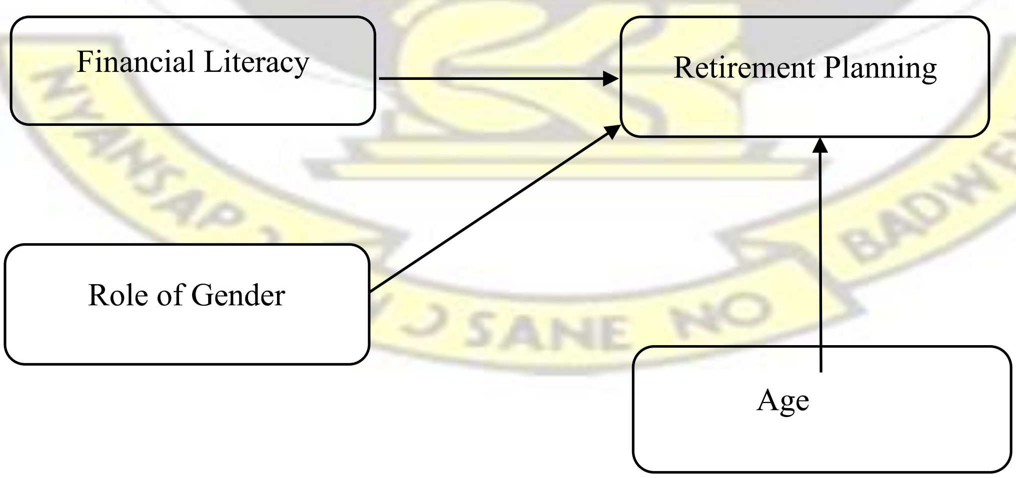
Çera and Tuzi (2019) determine whether or not young people in Tirana, Albania, differ in their financial literacy based on gender. In their study, they used a survey covering financial literacy, attitude and behaviours. Young males were more likely to reflect on their ability to deal with risk, take initiative, and read to enhance their financial literacy compared to young femaleswho were more concerned with budgeting and where their money should go.

Using a logistic regression model, Farrar, Moizer, Lean, and Hyde (2019) surveyed 516 English men and women about their knowledge of finances, retirement plans, and investing. They concluded that women were less likely to have a retirement plan than males and that there was no correlation between financial knowledge and retirement savings. Additionally, it was found that factors such as financial attitude and anticipation did not significantly differentiate men and women when it came to planning for retirement.

Using data from a survey taken from 380 college students, Barboza, Smith and Pesek (2016) investigate how disparities in gender and academic achievement affect students' ability to handle their finances responsibly. Preliminary estimates from a battery of Probit and Ordered Probit models suggest that GPA and gender are major contributors to observed disparities in financial literacy. Also, people with the highest GPAs show a far greater level of financial knowledge than others. Students of all sexes face obstacles when trying to make sound financial decisions, but it is especially difficult for women with lower GPAs which further, shows that people overestimate their financial savvy.

2.5 Conceptual Framework

The study's framework is to assess the moderating effect of gender on the relationship between financial literacy and retirement planning among the youth. The dependent variable is retirement planning, with financial literacy, gender diversity as independent variable. Age differentials would be kept as a control variable. The conceptual framework is illustrated in the figure below.



Source: Author's construct (2022)

2.6 Summary

This chapter helps better understand the connections between gender and retirement planning, as well as other important factors. This chapter also shed light on the role of attitude and expectation variables as predictors of such planning. It further, envisages that individuals' financial literacy will shape their financial behaviour and thus drive the effect of financial literacy on retirement planning. The study used the theory of planned behaviour and expectancy theory to further explain the attitude of an individual. To conclude the study helps bridge the gap between various studies on financial literacy and retirement planning by looking further into how financial knowledge and financial behaviour might help employees in Sub-Saharan Africa, a developing region, plan for retirement. Even though researchers have investigated and contributed to the field, progress in this study is still slow.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter explains the methods employed to carry out the research. It further discussed the study population and sampling design, data sources, data collection methods, data processing methods, validity, and reliability tests, as well as how ethical considerations were addressed throughout the research process.

3.2 Research Design

According to Saunders et al. (2011), research design outlines how a study is carried out.

This study employed the descriptive cross-sectional survey design.

The survey design was adapted in assessing the effect of financial literacy on retirement planning, mediating and moderating the role of financial behaviour and gender among young adults in Accra Metropolis. The survey approach was chosen because, according to Saunders et al. (2011), it is crucial for collecting uniform data from a population in a cost-effective manner that allows for easy comparison. Furthermore, the information gathered through the design can be utilized to speculate on plausible reasons for specific correlations between selected variables of gender, financial behaviour, financial literacy and retirement planning.

3.3 Research Approach

Research is a scientific method used to learn something new. Understanding the research paradigm is essential for employing appropriate research methodologies and philosophies; this is because all theories and research have underlying philosophical roots (Hair et al., 2011:2014). Knowledge creation and dissemination are central themes in research philosophy (Saunders et al. 2011). One of the many philosophical vantage points is epistemology, which deals with the nature and development of knowledge. As stated by Sunders et al. (2011), epistemological assumptions centres on how new information is acquired, processed and used. By forming hypotheses and testing them statistically, the scientific method has been acknowledged by the epistemological perspective as a means of producing reliable knowledge (Snyder; 2019). From an epistemological stance, one can see how new information is constantly supplementing existing knowledge.

In the broad field of social research, two of the most prominent research paradigms are positivism and interpretivism. Positivism is a paradigm that relies on measurement and reason, that knowledge is revealed from a neutral and measurable (quantifiable) observation of activity, action or reaction. Interpretivism is a method of research in which an action or event is analyzed based on the beliefs, norms, and values of the culture of the society in which it takes place. It is a qualitative method used to analyze data related to human actions

When looking at data, the quantitative paradigm is more concerned with numbers, whereas the qualitative paradigm is more interested in people's subjective interpretations. Because of these presumptions, researchers have to conduct their studies in particular ways. The positivist research philosophy is predicated on testing the viability of previously tested hypotheses in the context of the study (Saunders et al., 2011). Only when the results are corroborated by empirical evidence can they be considered reliable and valid. To investigate hypotheses and achieve study aims, positivist researchers rely on quantitative techniques (Creswell, 2014). According to the epistemological viewpoint, researchers should remain detached from the study population to avoid bias and provide an unbiased assessment of the research setting (Creswell, 2014).

Interpretivism is different from positivism, philosophy involves the identification of events in a context of interest based on the subject's interpretations and meanings of those events. Researchers are constrained in their methods by these presuppositions. To acknowledge the participants' different origins and experiences, qualitative researchers believe it is vital to comprehend the actors and their social roles (Saunders et al., 2011) by engaging them in a discussion that could yield multiple viewpoints (Dikko, 2016). In between these two extremes are mixed methods, often known as triangulation.

Using these methods, it is clear that positivism, the underlying philosophy of quantitative research, is a good fit for the study's objectives. The study used quantitative methods of data collection because that is what was required by the investigation. These studies generate hypotheses by drawing on the latest developments in planned behaviour theory and expectancy theory. Goals include using reliability and validity to assess and generalize study results and evaluating hypotheses created theoretically regarding the impacts of a set of study variable constructs. The researcher then adopts a positivist epistemological perspective and works to apply positivist principles to the study as much as possible.

3.4 The population of the Study

The term target population refers to a group of people or items from whom necessary data/information about the event may be gathered (Dikko, 2016). As the study's objective is to examine the impact of financial literacy on retirement planning, the mediating and moderating role of Financial Behaviour, and gender, the study's target population includes young adults between 18 and 35 years of age in Accra. The study chose Accra due to its unique traits, which make it a perfect representative sample of Ghana's populace. Accra is the capital city and is populous, with a high level of income and widespread access to formal financial services. One difficulty this research encountered regarding the chosen population was a dearth of precise data on the whole target population. According to Dikko (2016), this difficulty is encountered in the majority of research conducted in developing countries such as Ghana. The same issue gets magnified in research that deals with community concerns such as the one at hand. As a result, the researcher was compelled to rely on his or her judgment and convenience to engage in as many interactions as possible.

3.5 Sources of Data

Two main sources of data exist in any research, this includes primary data and secondary data. While primary data refers to first-hand information gathered by the researcher for the research, secondary data deals with already existing data gathered for a different purpose. The choice of the data source in any research is dependent on the nature of the objective of the study. Considering the nature of this study, primary data is more suitable to be able to test the hypotheses proposed in Chapter two (2). The choice of primary data is justified by the quest to gather first-hand information on the views of young adults in Accra, i.e., to expose the underlying understanding of financial literacy. Data used in this study was therefore gathered using a well-structured questionnaire.

3.6 Sample Size and Sampling Technique

The number of people or items to be included in the study is referred to as the sample size (Saunders et al., 2011). The sample size calculator for SEM is a popular method of finding sample size in structural equation modelling (SEM) (Hair et al., 2012). A total sample size of 300 respondents is considered appropriate for this study, based on an expected effect size of 0.2, desired statistical power level of 0.8, a total of 3 latent variables and a total of 32 observed variables, and a probability level of 0.05. The sample size of 300 respondents is considered appropriate because questionnaire is administered across the chosen population, making it possible to gather views which are relevant to make accurate judgments and inferences about the overall population.

The researcher must now determine the sampling technique for the study after determining the sample size. Every researcher's dream would have been to collect data from every single person in a population. This scenario is only achievable when the researcher is working with small groups of people. When the population of interest is big, however, this census approach is not always viable. Accessing potential participants is also costly, time-consuming, and complicated. As a result of these issues, studies that use huge populations, such as this one, have depended on sampling procedures to pick a representative sample from the population of interest (Hair et al., 2012). Sampling is the process of selecting a sufficient number of components from a larger population or constituents in the hopes of using the data gathered from these sampled elements to make accurate judgments and inferences about the overall population (Hair et al., 2011).

There are two types of sampling procedures known in the literature: probability and nonprobability sampling. In the case of study research, non-probability sampling is regularly used. While probability sampling is routinely employed in surveys and experiments, case study research frequently uses non-probability sampling. Despite this, when the sample population is exceedingly big, some researchers continue to utilize non-probability sampling in quantitative studies (Saunders et al, 2011).

Each element in the sample frame has an equal chance of being chosen in probability sampling, whereas in non-probability sampling, the opposite is true (Handoyo and Bayunitri, 2021). As a result, valid inferences about the target population are difficult to make when nonprobability sampling is used. Even though non-probability sampling frequently relies on personal judgments and samples obtained using this technique may not always be a true reflection of the population, generalizations about the population can still be made (Kewo and Afiah, 2017). Non-probability sampling procedures include quota, purposive, snowball, and convenience sampling. Purposive sampling is the process of selecting participants based on the researcher's judgment of who has the relevant information. The survey collected data from multiple respondents who were expected to have the best knowledge about financial literacy, financial behaviour, and retirement planning instruments as exist in young adults in Accra Metropolis. Therefore, purposive sampling was used for the study.

3.7 Data Collection

According to Dikko (2016), data can be acquired in a variety of methods in various circumstances. Interviews (electronic, telephone, and face-to-face), survey surveys (given directly or electronically), observations (videos and audio), and motivating tactics are among them.

While all of these data-gathering methods are significant, the survey questionnaire method was chosen more suited for this study's data collection due to the study's goal and objective, which is to evaluate the interrelationships among variables using a quantitative approach. The survey method is a way of gathering information about a big group of people's perceptions, judgments, and attributes (Graue, 2015). The basic purpose of surveys, according to positivist philosophy, is to create systematic observation using organized research questions to give uniformity and standardization (Graue, 2015). For researchers who want to collect primary data about a group that is too vast to examine or observe directly, a survey is usually the best option.

According to Babbie (2004), a survey approach entails the researcher selecting a representative sample with characteristics that mirror the larger population, as well as the use of well-developed standardized questionnaires to ensure that all respondents reply in the same way. The strength of the survey approach, according to Malhotra and Birks (2007), is found in its standardized measurements. The data is usually quantitative and may be compared and examined using a variety of statistical approaches with ease (Creswell, 2014). Again, employing a questionnaire for data collection makes tabulation and data analysis easier and more straightforward, as well as provides some level of reliability (Snyder, 2019). In keeping with Ameliawatiand Setiyani (2018), this study used a survey approach to data collecting, intending to elicit direct replies from young adults on their financial literacy, financial behaviour, and retirement planning.

Before administering the questionnaire, a briefing was given to all respondents outlining the study's goals and key ideas. The responders' confidentiality was likewise guaranteed. They were reminded that taking part in the research was entirely optional. Respondents' permission was requested in the survey instructions. Permission to contact with the research participants and deliver the questionnaires was obtained beforehand. The literature in the area was used as a foundation for the development of the questionnaire. The three-week data collection period included a self-administered questionnaire. In order to maintain respondents' privacy, we gave them the option of receiving their surveys either by hand delivery or online. Each survey was given in English. Researchers in this study used both online and offline channels to distribute questionnaires to the respondents that will be identified to be young adults between 18 and 35 years. The online survey was sent out through Google Forms, while the offline questionnaire will be administered in person to the respondents. The goal of combining traditional methods with digital ones is to get as many people as possible to respond. Due to the heterogeneous data used in this study, data aggregation (rWG and ICC tests) came first in the data processing phase, followed by checks for data quality and hypothesis testing.

3.8 Questionnaire Development

To further understand how gender and financial conduct influence the connection between financial literacy and retirement planning, the questionnaire was modified. There were three parts to the questionnaire: (1) personal information (section A), (2) financial literacy and retirement planning (section B), and (3) financial behaviours (section C). The elements and framework were reworked from previously published works (Mata, 2021; Lusardi & Mitchell, 2017; Farrar et al., 2019). Additionally, the model was regulated by the respondents' ages and levels of education. Based on prior empirical research (Lusardi & Mitchell, 2017; Farrar et al., 2019), the instrument was evaluated using a five-point Likert scale. The tool only has 5-point Likert-scale items that do not allow for free-form responses. The purpose of the free-form questions was to elicit information that could not have been anticipated with predetermined answers.

3.9 Piloting of Questionnaire

According to Saunders et al. (2016), a pilot test of a study refers to using a smaller number in the target population to assess a questionnaire to reduce the probability of the respondents having challenges in replying to the questions and to also evaluate how valid and reliable the data will be. The researcher randomly selected 30 respondents from the sampling frame after conducting the reliability and validity test. The essence was to identify any shortcomings in the questionnaire and rectify them before the actual fieldwork was undertaken. Some authors have different views about the samples to select. According to Hill (1998), a range of 10 to 30 respondents will be ideal for the task while Connelly (2008) suggested a sample size of 10% of the sample respondents will be enough to carry out the pilot testing. In the view of Cooper and Schinder (2011), a sample of between 25 and 100 respondents is considered ideal for a pilot study. The current study used a sample of 30 respondents which is deemed appropriate as proposed by Hill (1998) and (Johanson and Brooks, 2010) to undertake the pilot test. A few issues identified will be used to refine the questionnaire for the main data collection.

3.10 Method of Data Analysis

The method of data analysis is an essential component of any research, and the method selected has a significant impact on the quality of the findings, conclusions, and recommendations derived from the data. As a quantitative study, multiple quantitative techniques were utilized to analyzethe data to achieve the objective outlined in chapter one. After data was collected, it was compiled in Excel for examination. A few incomplete questionnaires were discarded as a result of the examination. Both Statistical Package for the Social Sciences (SPSS) version 26.0 and Smart PLS 4 were utilized in the analysis. SPSS was utilized for analyses involving frequencies, means, standard deviations, independent sample t-tests, correlation, and exploratory factor analysis. In this study, Smart PLS-SEM was utilized for Confirmatory Factor analysis, Structural Model evaluation, and other models fit indices.

3.10.1 Partial Least Square-Structural Equation Modelling (PLS-SEM)

This study examined collected data using Partial Least Square-Structured Equation Modelling (PLS-SEM). SEM is a statistical tool for testing and analyzing causal relationships in statistical data (Snyder, 2019). PLS is a variance-based technique that is also presented as a componentbased technique for assessing structural equation models. Also known as soft modelling, it does not require a standard distribution assumption (Credeand Harms, 2019). PLS can be used for either theory confirmation (confirmatory factor analysis) or theory development (exploratory factor analysis) (Credeand Harms, 2019). SEM has been carefully conceived as a more effective statistical method for predicting the association between variables than multiple regression. PLS has the following characteristics: PLS makes no distributional inferences. PLS rejects the premise that outcomes must conform to a particular distribution pattern and be distributed independently. PLS begins by measuring case values and maximizing the variance of the dependent variable explained by the independent variable, as opposed to covariance-based SEM, which calculates model parameters before case values (Henseler, 2017). Latent Variables (LVs) are non-observable variables that are investigated in PLS as exact linear combinations of their evidence-based indicators.

PLS models, like SEM, typically consist of two components: a structural component that illustrates the relationships between latent variables, and a measuring component that illustrates the interactions between latent variables and indicators. The weight relationships used to approximate case values for latent variables are another function of PLS (Werekoh, 2012). SEM can evaluate the relationship between model constructs simultaneously, whereas the first-generation approach analyzes variables separately (Hair et al., 2011). Before evaluating the conceptual model, it is important to consider the context and rationale for employing PLS to analyze the data. Consideration of the assumptions underlying various statistical procedures could aid in the selection of the most suitable statistical instrument. According to Hair et al. (2012), the choice between CB-SEM and PLS-SEM is contingent on several factors, including the study objective, measurement model definition forms, structural process model modelling, data characteristics, and model evaluation. If the objective of the study is to confirm or test an established theory, CB-SEM is the optimal method to employ. In contrast, PLS-SEM is the method to use when the objective of the study is to develop or predict a hypothesis.

Given the lack of evidence for the relationship between financial literacy on retirement planning, PLS-SEM was used to establish the justifications and predictions for the relationships. The justifications for introducing PLS in the present study are twofold: first, it is universally accepted and used in recent diversified literature, (Liao and Barnes, 2015): second, in examining the perceived factors of financial literacy, the majority of researchers use SEM (Henseler, Ringle, and Sarstedt, 2015). Therefore, PLS-SEM is a suitable method for this study. PLS-SEM can also be used to analyze data with a sample size of medium or small size (Ali et al., 2018). Lastly, the fundamental purpose of PLS is to analyze statistical models that have been proposed based on prior research, and not to assess which alternative model best fits the data (Ringle and Ting, 2018). To evaluate the research model, PLS-SEM will be utilized as the statistical method in this study.

3.10.2 Validity

A crucial aspect of research is ensuring that the instrument designed to evaluate particular concepts accurately measures those concepts. According to Ringle and Ting (2018), validity refers to the degree to which an instrument evaluates its intended emphasis. Face, content, convergent, and discriminant validity will be used to evaluate the validity of the research instrument (Henseler, Ringle, andSarstedt, 2015). Storyand Tait (2019) assert that the methodology used to develop the questionnaire is the most crucial aspect of content validity. The content validity of investigated constructs was determined through a comprehensive examination of prior empirical and theoretical work. The face validity of the questionnaire was determined through a pretest administered to a subset of Ghanaian residents in Accraabove 20 years and the supervisors' expert review of the questionnaire's applicability and suitability for achieving the study's objectives.

To show that the ideas were distinct from one another and accurately reflected particular phenomena, we developed measures of convergent and discriminant validity (Story and Tait, 2019). The term convergent validity describes a situation in which multiple items are highly correlated and all measure the same idea. By employing PLS-SEM, Hair et al. (2011, 2012) indicate that the AVE must be at least 0.50 to establish the convergent validity of the reflective measurement model. Discriminant validity, the extent to which one construct's measurements are distinct from those of another construct, will be determined by an examination of the FornellLarcker Criterion and cross-loading, two measures used in the study (Hairet al., 2012). That "the latent construct has more variation with its assigned indicators than other latent variables in the structural model" is what the Fornell-Lacker Criterion is all about. For discriminant validity, each latent construct must have a cross-loading value where the indicator loading of the associated latent construct is greater than its loading with other constructs held constant, as measured by the squared correlation between the two (Hair et. al., 2011).

3.10.3 Reliability

According to Twumet al. (2020), reliability measurement is the extent to which a measurement is free of random error by consistently producing the same result. The instruments' dependability will be evaluated using two reliability tests (internal consistency and indicator of reliability), both of which are described in the work of Hair et al. (2012). To better fit PLS-SEM, we employed the composite Reliability test to rank the variables in terms of their reliability during model estimation (this does not mean that all variables are equally reliable). A Composite Reliability score between 0.7 and 0.9 indicates that the measurements are reasonably trustworthy.

3.11 Ethical Considerations

Every research involves ethical challenges. Consideration was given to informed consent, anonymity, confidentiality, and sympathetic neutrality as ethical factors. To ensure anonymity and confidentiality, the researcher made sure respondents did not record their names or phone numbers on the instrument. Since participation in a research study must be voluntary and researchers should not exert pressure on respondents (Werekoh, 2022), the management and employees of the company featured in the study provided consent before the study's commencement. Each field employee received a letter of recommendation from the business school at KNUST to gain responder trust and access to restricted groups.

3.12 Chapter Summary

This section of the study was dedicated to the study's methodology. It depicts the study's research design and describes the individuals and figures that will comprise the study. Methods for sampling the population and measuring the research instrument are also discussed, and the chapter concludes with a discussion of how to ensure that certain ethical standards are adhered to. The following chapter provides an analysis of the data collected using the procedure described in the preceding section.

CHAPTER FOUR

DATA ANALYSIS, RESULTS, AND DISCUSSION

4.1 Introduction

This chapter provides an overview of the data acquired in relation to the study's research subjects. It includes information about the respondents, descriptive analyses of financial behaviour, retirement planning, and financial literacy, correlation analyses, and regression analyses on how financial literacy affects retirement planning and how this relationship may be mediated by financial behaviour and moderated by gender.

4.2 Respondents Profile

This section includes the demographics of the respondents to provide details on the participants that are included in the study. The respondent's gender, age, education level, marital status, monthly income, and employment status are the main types of data collected.

Table 4. 1: Respondents Profile

Variables	**Categories**	**Frequency**	**Percent**
Gender	Female	118	39.3
	Male	182	60.7
Age	21-25 years	96	32.0
	26-30 years	154	51.3
	31-35 years	50	16.7
Level of Education	Bachelor's Degree	159	53.0
	Diploma	85	28.3
	Graduate Studies (Master / PhD)	56	18.7
Marital Status	Married	176	58.7
	Unmarried	124	41.3
Income (Per month)	1000-3999	287	95.7

	4000-7999	12	4.0
	8000-19999	1	0.3
Employment Status	Employed	300	100.0
	Total	**300**	**100.0**

4.2.1 Gender

Out of the 300 valid responses, 118 participants, representing 39.3 percent were female, while 182 participants, representing 60.7 percent, were male. This information demonstrates that the study had a higher proportion of male participants than female participants.

4.2.2 Age Category of Respondents

Three-in-ten (32%) of the 300 respondents fell in the 21-25 age range, 51.3% were 26-30, and 16.7% were 31-35. According to the results, the median respondent age fell between 26 and 30.

4.2.3 Educational Level

Out of the 300 respondents, 53.0 percent had bachelor's degree, 28.3 percent had diploma, and 18.7 percent had graduate studies (master/PhD). The result reveals that majority of the respondents had bachelor's degree.

4.2.4 Marital Status

Out of the 300 respondents, 58.7 percent were married and unmarried participants were 41.3 percent. The result reveals that majority of the respondents were married.

4.2.5 Income (Per month)

Out of the 300 respondents, 95.7 percent of the participants get between 1000 – 3999, 4.0 percent indicated 4000 – 7999, and 0.3 percent indicated 8000 - 19999. The result reveals that majority of the respondent's income were between 1000 – 3999.

4.2.6 Employment Status

Out of the 300 responses, 100 percent of the respondents indicating majority of the study were employed.

4.3 Confirmatory Factor Analysis

The measuring model could be a better name for the outer model. The outer models, commonly referred to as measuring models, show how a latent variable is related to its markers (Aburumman et al., 2023). The link between a notion and its observable components is explained by the measuring model. Selecting the most instructional indicators is the initial step before putting such a concept into practise. This scale's goal also includes integrating indicators (objects) into preexisting mental models. The validity and reliability of the survey equipment, as well as the precision of variable measurement, may all be ensured by the evaluation of the measurement model.

4.3.1 Reliability and Validity Test

The Cronbach alpha value and composite reliability show how consistently the measures capture the variables. These readings have to fall between 0.7 and 0.9. (Hair et al., 2013). The fact that each variable had a value larger than 0.7 demonstrated its reliability. The convergent validity was assessed using the average variance extracted value (AVE), which exceeded the 0.5 cutoff (Hair et al., 2013). When analysing the discriminant validity, the Fornell-Larcker criteria were applied. The variables are genuine since each item has a better correlation with itself than it does with any other variable. Furthermore, the cross factor loadings show that the factors loaded more heavily in their particular variables than in the other variables, showing that the variables were accurately assessed using the right factors and are therefore suitable.

Table 4. 2: Reliability and Validity Test

Construct	Number of items	CA	CR	AVE
Financial Behaviour	12	0.972	0.974	0.766
Financial Literacy	8	0.961	0.965	0.788
Retirement Planning	7	0.957	0.958	0.796

Table 4.2 above provides the variable scores for CA, CR, and AVE. The Cronbach alpha scores for financial behaviour, financial literacy, and retirement planning were 0.972, 0.961, and 0.957, respectively. For Composite Reliability, financial behaviour obtained a score of 0.974, financial literacy a score of 0.965, and retirement planning a score of 0.958. For each of these values, a score of 0.7 is acceptable, reflecting the reliability of the variables. Retirement planning obtained a score of 0.796, financial behaviour received a score of 0.766 for the Average Variance Extracted (AVE), and financial literacy received a score of 0.788. The variables are suitable since a minimum permissible value of 0.5 exists.

Table 4. 3: Cross – Factor Loadings

Factor	Code	Financial Behaviour	Financial Literacy	Retirement Planning
1	FB1	0.784	0.580	0.573
2	FB10	0.906	0.745	0.824
3	FB11	0.799	0.611	0.597
4	FB12	0.877	0.587	0.703
5	FB2	0.872	0.716	0.764
6	FB3	0.912	0.684	0.777
7	FB4	0.909	0.676	0.727
8	FB5	0.896	0.669	0.736
9	FB6	0.848	0.694	0.763
10	FB7	0.914	0.656	0.728

11	FB8	0.857	0.712	0.773
12	FB9	0.917	0.673	0.743
13	FL1	0.670	0.911	0.820
14	FL2	0.713	0.909	0.859
15	FL3	0.710	0.938	0.826
16	FL4	0.543	0.790	0.676
17	FL5	0.624	0.912	0.778
18	FL6	0.637	0.884	0.727
19	FL7	0.716	0.860	0.742
20	FL8	0.786	0.890	0.854
21	RP1	0.761	0.763	0.880
22	RP2	0.732	0.794	0.902
23	RP3	0.757	0.806	0.930
24	RP4	0.755	0.796	0.865
25	RP5	0.825	0.792	0.936
26	RP6	0.667	0.779	0.817
27	RP7	0.707	0.818	0.911

The most common validity test that assesses the association between each latent variable and the primary variable or concept is the cross-factor loadings. The components that have the strongest correlations with the primary variable are the ones that are considered legitimate. The items with the codes FB1, FB10, FB11, FB12, FB2, FB3, FB4, FB5, FB6, FB7, FB8, and FB9 received scores of 0.784, 0.906, 0.799, 0.877, 0.872, 0.912, 0.909, 0.896, 0.848, 0.914, 0.857, and 0.917 for the financial literacy, accordingly. It was decided to employ the objects FL1, FL2, FL3, FL4, FL5, FL6, FL7, and FL8 since they loaded highly across all structures. The results are, correspondingly, 0.911, 0.909, 0.938, 0.790, 0.912, 0.884, 0.860, and 0.890. Indicators 21 through 27 have the greatest retirement planning loadings and are therefore appropriate factors for assessing supply chain responsiveness. Due to their large loading in all builds, the elements RP1, RP2, RP3, RP4, RP5, RP6, and RP7 were employed. The results are: 0.880, 0.902, 0.930, 0.865, 0.936, 0.817, and 0.911.

4.3.2 Bartlett's Test of Sphericity and Kmo Test

All pertinent information is gathered for examination by the KMO and Bartlett tests. A KMO score more than 0.5 and a Bartlett's test significance level of less than 0.05 indicate a considerable degree of correlation between the data. How tightly a variable is related to other variables is shown by the level of collinearity. Values over 0.4 are regarded as suitable. For every variable, KMO measurements may also be computed. Any value over 0.5 is acceptable. The KMO sample adequacy for the research was 0.919, according to the findings in Table 4.4.

Table 4. 4: Bartlett's Test of Sphericity and KMO Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.919
Bartlett's Test of Sphericity	Approx. Chi-Square	12145.279
	df	351
	Sig.	.000

4.4 Descriptive and Correlation Analysis

The study looked at how financial literacy affects retirement planning and how this relationship may be mediated by financial behaviour and moderated by gender using Pearson's correlation, often known as Pearson's r. The study also looked at the descriptive and correlation relationships between the different factors. In SPSS 26.0, a Pearson correlation analysis was carried out. Table 4.5 provides a summary of the findings from the Pearson correlation analysis. Financial behaviour assessed (Mean=4.18; SD=0.942) according to Table 4.5. The financial literacy received a score of (Mean=3.84; SD=1.231). The retirement planning received a score of (Mean=3.90; SD=1.184). As seen in Table 4.5 below, there is a link between financial behaviour and financial literacy and retirement planning of 0.785 and 0.860, respectively. The correlation coefficient between financial literacy and retirement planning was 0.924. As a result, each of the variables had a higher correlation with the variables above it, demonstrating the validity of each one.

Table 4. 5: Descriptive and Correlation Analysis

Construct	Mean	Std. Dev.	1	2	3
Financial Behaviour	4.18	0.942	1.000		
Financial Literacy	3.84	1.231	0.785	1.000	
Retirement Planning	3.90	1.184	0.860	0.924	1.000

4.5 Structural Model Analysis and Hypotheses Testing

To explore structural relationships, a multivariate statistical analytical technique known as structural equation modelling is used. This approach combines component analysis and multiple regression analysis to look at the structural relationship between independent and dependent variables and latent variables. Using bootstrapping 5000 with substitution and standard error, the study will assess both the moderated mediation model in accordance with the measuring model's degree of confidence (Hair, Sarstedt, Hopkins & Kuppelwieser, 2014). Metrics like f-value, pvalue, path coefficient, coefficients of determination (R2), f2 effect size, and q2 impact size under the structural model were taken into consideration in this study. The route coefficient was calculated with a value of +1 to illustrate the significant, positive relationship in the structural model. When the structure path coefficient by bootstrapping significantly differs on its standard error, the study used p-value and t-value. At a significance threshold of 0.05%, the anticipated tvalue was 1.96.

4.5.1 R2 coefficients of determination and adjusted R2 (R2adj)

According to the coefficient of determination, the independent variables are responsible for a proportion of the variance in the dependent variable (R2). In this study, the (R2) measures how well the independent variables were able to forecast the result. According to Falk and Miller (1992), the R2 should be more than 0.10 in order for the predictive relevance of the model to be accepted. Table 4.6 demonstrates that the model's substantial predictive accuracy (R2 adjusted) values for financial behaviour are 0.585 and retirement planning is 0.848.

Table 4. 6: Coefficients of Determination (R2) and R2Adjusted

Construct	R-square	R-square adjusted
Financial Behaviour	0.585	0.584
Retirement Planning	0.848	0.846

4.6 Model Fit Summary

The important fit indices employed in CFA have been broken down into three categories by several studies: real fit indices, meanness correction indices, and comparative fit indices (e.g., Kline, 2005; Brown, 2015). It is emphasised that a model cannot have good enough fit if it just uses one class. In order to determine how well the model fits the population, the Root Mean Square Error of Approximation (RMESA), the Normed Fit Index (NFI), and the Standardised Root Mean Square Residual (SRMR) are used in this study. The computed model's SRMR was below the 0.08 threshold that was permitted. The model's calculated NFI value was below the established cutoff point (>0.95). Table 4.7 shows that the SRMR for this research model was 0.060, suggesting an acceptable fit, while the Chi-square was 3128.555 and the Normed fit index (NFI) was evaluated at 0.751.

Table 4. 7: Model Fit Summary

	Estimated model
SRMR	0.060
Chi-square	3128.555
NFI	0.751

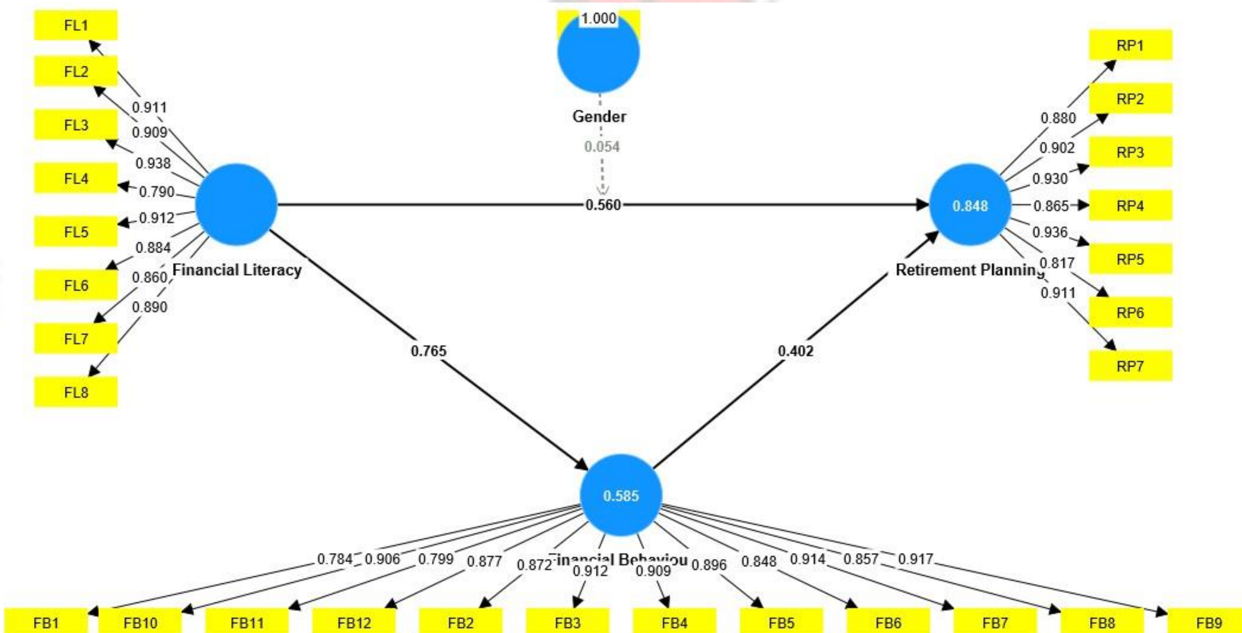


Figure 4. 1: Measurement Model Assessment

4.7 Hypotheses for Direct and Indirect Relationship

The research's hypotheses are examined using SmartPLS 4 in this section. The results are displayed in table 4.8 below. The study's goal is to investigate the impact of financial literacy on retirement planning and how gender and financial behaviour may influence this relationship.

Table 4. 8: Hypotheses for Direct and Indirect Relationship

Construct	Path Coefficient	T statistics (|O/STDEV|)	P values	Results
Financial Behaviour -> Retirement Planning	0.402	8.080	0.000	Supported

Financial Literacy -> Financial Behaviour	0.765	29.713	0.000	Supported
Financial Literacy -> Retirement Planning	0.560	8.662	0.000	Supported
Gender -> Retirement Planning	-0.078	1.327	0.185	Not Supported
Gender x Financial Literacy -> Retirement Planning	0.054	0.772	0.440	Not Supported
Financial Literacy -> Financial Behaviour -> Retirement Planning	0.308	7.644	0.000	Supported

With the following data (B=0.402; t=8.080; P value =0.000; Sig0.05), Table 4.8 illustrates the direct influence of financial behaviour on retirement planning. The first hypothesis (H1) was confirmed since the path coefficient was positive and the p-value was less than 0.05, indicating that there was a direct and positive impact on financial behaviour related to retirement planning. Retirement planning is predicted to rise when financial behaviour rises, according to a positive path coefficient.

Financial literacy has a direct effect on financial behaviour (B=0.765; t=29.713; P value =0.000; Sig0.05). Since the p-value was less than 0.05 and the path coefficient was shown to be positive, the second hypothesis (H2) was supported. This suggests that there was a positive significant direct effect on the financial literacy to financial behaviour. According to the positive path coefficient, as financial literacy rises, financial behaviour will also rise.

The direct effect of financial literacy on retirement planning was demonstrated (B=0.560; t=8.662; P value =0.000; Sig0.05). The third hypothesis (H3) was supported since the path coefficient was positive and the p-value was less than 0.05, suggesting that there was a significant positive direct connection concerning financial literacy and retirement planning. Retirement planning will rise as financial literacy rises, according to the positive path coefficient.

In the direct link among gender and retirement planning (B=-0.078; t=1.327; P value =0.185; Sig>0.05). Given that the path coefficient was discovered as negative and the p-value was greater than 0.05, the fourth hypothesis (H4) was not supported since there was no significant direct connection concerning gender and retirement planning.

Retirement planning and financial literacy were shown to be indirectly influenced by gender (B=0.054; t=0.772; P value =0.440; Sig>0.05). Since the path coefficient was positive and the pvalue was higher than 0.05, the fifth hypothesis (H5) was not supported, indicating that gender did not positively influence the connection concerning financial literacy and retirement planning. The positive path coefficient indicates that gender moderates the connection concerning financial literacy and retirement planning in a way that is positive but insignificant.

Retirement planning and financial literacy were shown to be indirectly impacted by financial behaviour (B=0.308; t=7.644; P value =0.000; Sig0.005). Since the p-value was less than 0.05 and the path coefficient was shown to be positive, the six hypothesis (H6) was validated. This shows that financial behaviour positively mediates the connection concerning financial literacy and retirement planning. The connection concerning financial literacy and retirement planning is mediated by financial behaviour, as indicated by the positive path coefficient.

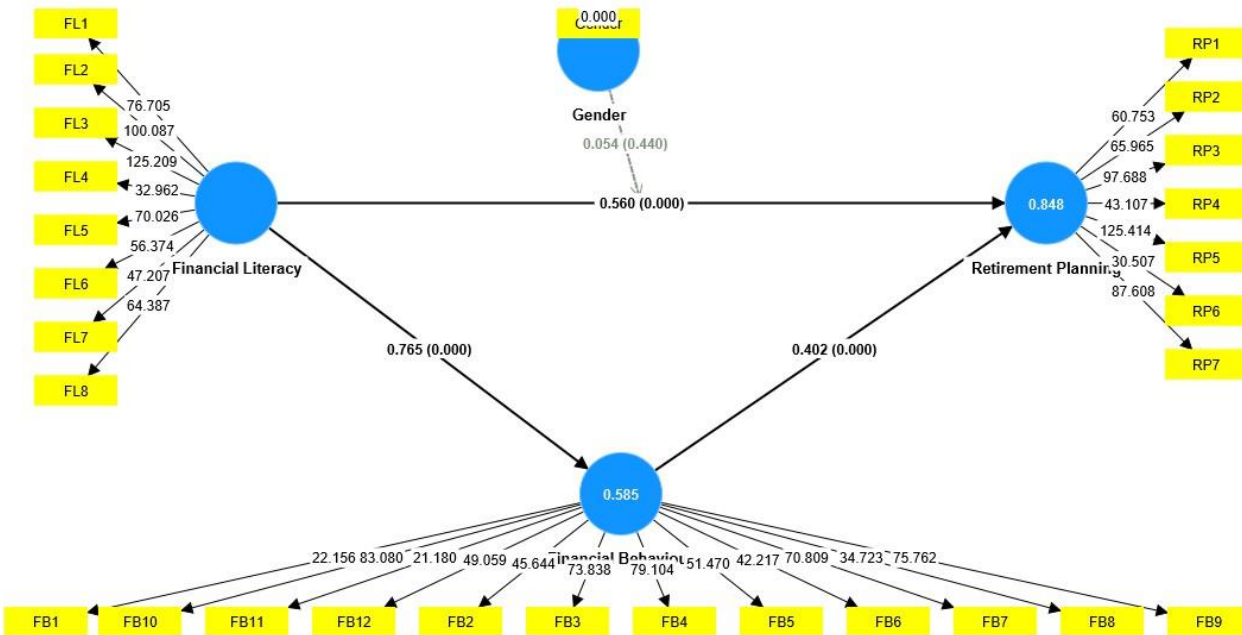


Figure 4. 2: Structure Model Evaluation

4.8 Discussion of Findings

The study results are discussed in this section in relation to the collection of prior research. Examining the impact of financial literacy on retirement planning is explained, along with how gender and financial behaviour may influence this connection. The study goes on to investigate the goals on the relationship between financial literacy, financial behaviour, retirement planning, and gender.

4.8.1 Effect of Financial Literacy on Retirement Planning

The initial objective of the study is to investigate the impact of financial literacy on retirement planning among young individuals in Ghana. The outcome demonstrates that there was a direct and beneficial impact on financial literacy and retirement planning. The positive path coefficient indicates that as financial knowledge rises, retirement planning will also rise. Financial literacy has been linked to retirement planning, according to earlier studies. Achari, Oduro, Felix, and Nyarko (2020) look at the effect of financial literacy on retirement planning using UMAT employees as a case study. The results show that financial knowledge significantly increases the chance of enjoying a good retirement. Employees were urged to encourage their employers to develop financial literacy programmes and increase the amount of financial education books accessible at the university library in order to better prepare workers for retirement. The study's findings also imply that Ghana's educational system need a nationwide financial literacy education plan that should begin with children. Kafari (2019) looked on how financial literacy affected employees of the Ghana Grid Company (GRIDCO) retirement planning. SPSS version 24 was employed to analyse the data, and the findings indicated that financial education had a positive and substantial impact on workers' capacity to save for retirement. The study's main finding is that having a solid understanding of finances is essential for making wise decisions about retirement savings over the long run. In Bukavu, the Democratic Republic of Congo (DRC), a developing country in Sub-Saharan Africa with a feeble allowance and social security system, Safari, Njoka, and Munkwa (2021) investigate how financial literacy affects retirement planning. The study discovered that people's retirement planning was strongly impacted by their financial literacy levels. However, financial knowledge and attitudes toward financial products were not shown to be useful in explaining individual retirement planning, even if calculation abilities and financial knowledge were proven to have a considerable influence.

4.8.2 Effect of Financial Literacy on Financial Behaviour

The second goal of the study is to assess how financial literacy affects the financial behaviour of young adults in Ghana. The results demonstrate a clear and positive connection concerning financial literacy and financial behaviour. The positive path coefficient indicates that as financial literacy rises, so will financial behaviour. Financial literacy has been demonstrated to significantly affect people's financial behaviours in previous studies. Zulaihati, Susanti, and Widyastuti (2020) claim that a teacher's level of financial literacy affects how they handle their own finances and how they teach their students. The research examined four distinct monetary behaviours: saving, spending, planning ahead, and not planning. In order to collect data, 142 people living in Greater Jakarta, Indonesia, were contacted when it was most convenient for them. SmartPLS utilized the reflecting measurement model to conduct their analysis. Therefore, financial literacy greatly affected people's saving, spending, and both short- and long-term planning behaviours. The global financial literacy of young people is evaluated by Garg and Singh (2018). It is being studied how different socioeconomic and demographic factors, such as age, gender, marital status, income, and others, affect the financial literacy levels of young people, and how financial knowledge, attitude, and behaviour are interconnected. The study's results raise serious concerns about the global youth population's dismal level of financial literacy. Several social and demographic characteristics, such as age, gender, income, marital status, level of education, etc., influence the extent to which young people understand and manage their own finances. Financial literacy, financial outlook, and financial conduct are interrelated. Adam, Frimpong, and Boadu (2017) examine the effects of financial literacy, financial behaviour, family support (as an additional source of income), the number of dependents, and retirement planning on the financial well-being of seniors in Cape Coast Metropolis, Ghana. This research shows that factors including financial knowledge, retirement preparation, and family support significantly affect the financial security of the elderly. A retiree's financial security is influenced more by retirement planning and family support than by financial literacy. In light of these results, it is critical to implement programs that educate people about the importance of saving money and preparing for retirement. Policies that prioritize social cohesiveness and family values should be prioritized alongside those that strive to provide the best possible level of financial stability for seniors.

4.8.3 Mediating Role of Financial Behaviour

The third goal of the study is to investigate the role that financial behaviour plays as a mediating factor in the connection concerning financial literacy and retirement planning among young adults in Ghana. The outcome shows that retirement planning has a positive, significant direct impact on financial behaviour. This suggests that retirement planning will rise as financial literacy rises since the path coefficient is positive. The outcome also demonstrates that the connection concerning financial literacy and retirement planning is significantly mediated by financial behaviour. The positive path coefficient indicates that the connection concerning financial literacy and retirement planning is significantly mediated by financial behaviour. According to the traditional economic approach to saving and spending decisions, it is thought that a sensible and knowledgeable individual would spend and save in a manner that is adequately proportioned to their income (Lusardi and Mitchell, 2014). A certain amount of financial knowledge and experience is frequently necessary for individuals to execute saving and spending in a sound manner (Lusardi and Mitchell, 2014). As a result, it has been discovered that personal daily financial behaviours are positively associated to financial literacy (Boon et al., 2011). The claim is confirmed by previous research, which shows that good financial literacy is required for efficient money controlling. For instance, those who have a complex understanding of finance are better able to monitor their spending, create budgets, and save money. They are also more likely to create retirement strategies (Lusardi and Mitchell, 2011a, 2011c). Additionally, it has been discovered that those with higher financial literacy are more likely than their peers to pay off credit card debt in full and on time, as well as to have health and life insurance (Allgood and Walstad, 2016).

Henager and Cude (2016) compare the financial literacy and associated behaviours of various age groups. The level of financial literacy was assessed using three criteria: individual financial controlling skills, individual financial assurance, and objective financial knowledge. Short-term financial behaviour includes things like spending and emergency savings, whereas long-term financial behaviour includes things like retirement savings and investment activities. Subjective financial management skills or knowledge, as opposed to objective financial knowledge, exhibited a greater association with long- and short-term financial behaviour in the age subsamples. Agerelated financial behaviours were better predicted by objective rather than subjective and subjective indicators of literacy.

4.8.4 Moderating Role of Gender

The fourth goal of the study is to investigate how gender influences young adults in Ghana's retirement planning when it comes to financial literacy. The outcome shows that there was a weak negative direct connection concerning gender and retirement planning. The results also show that gender does not moderate the connection concerning financial literacy and retirement planning. The positive path coefficient indicates that gender moderates the connection concerning financial literacy and retirement planning in a way that is positive but insignificant. This study's conclusion is in line with that of earlier research, too. Whether or whether gender has a moderating effect in the links between financial knowledge, money outlook, stress, and capability is examined in Sabri, Abdullah, Zenhendel, and Ahmad's (2017) study. The central area of Peninsular Malaysia, which includes the states of Perak and Selangor as well as the Federal Territories of Kuala Lumpur and Putrajaya, was chosen for the study using a multi-stage random sampling approach. Gender influences the chi-square value, according to the results of a test of the moderating impact in overall models. The findings revealed that gender had no appreciable influence on levels of financial stress, money attitudes, or financial competence when each path was examined independently. The results of some earlier investigations were at odds with those of this study. There are notable gender disparities in saving behaviour and preparation for retirement planning, according to Jonubi and Abad's (2013) research. Previous studies have also shown that gender disparities in saving behaviour are rather significant (Lei, 2019). In addition to having lower savings tendencies and being less financially savvy than men, women also tend to be more riskaverse than men when making financial decisions (Lei, 2019; Sent and van Staveren, 2019). The fact that women are more likely than men to earn less money is another factor that influences gender differences in saving behaviour (Jonubi and Abad, 2013; Ali, 2021).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study's goal is to investigate the impact of financial literacy on retirement planning and how gender and financial behaviour may influence this connection. The findings and conclusion of the study are summarised and briefly discussed in the first section of the chapter. The chapter ends with recommendations for more research.

5.2 Summary of Findings

5.2.1 Effect of Financial Literacy on Retirement Planning

The initial objective of the study is to investigate the impact of financial literacy on retirement planning among young individuals in Ghana. The outcome demonstrates that there was a direct and beneficial impact on financial literacy and retirement planning. The positive path coefficient indicates that as financial knowledge rises, retirement planning will also rise. The financial report of an individual assets and liabilities can be affected by financial literacy. Therefore, those who are financially literate are required to have a fundamental comprehension of terms like risk, compound interest, interest rate, and inflation rate. According to studies on the degree of financial literacy among different population segments, each sector of the population lacks the knowledge necessary to make wise financial choices regarding, besides these things, mortgages, credit cards, insurances, and investments. It was discovered that financial knowledge was crucial in illuminating attitudes regarding saving.

5.2.2 Effect of Financial Literacy on Financial Behaviour

The second goal of the study is to assess how financial literacy affects young adults in Ghana's financial behaviour. The results demonstrate a clear and positive connection concerning financial literacy and financial behaviour. The positive path coefficient indicates that as financial literacy rises, so will financial behaviour. According to the research, individuals that are more financially knowledgeable are less likely to use high-cost borrowing and are more likely to have prepared for retirement or other conditions.

5.2.3 Mediating Role of Financial Behaviour

The third goal of the study is to investigate the role that financial behaviour plays as a mediating factor in the connection concerning retirement planning and financial literacy among young adults in Ghana. The outcome shows that retirement planning has a positive, significant direct impact on financial behaviour. This suggests that retirement planning will rise as financial literacy rises since the path coefficient is positive. The outcome also demonstrates that the connection concerning financial literacy and retirement planning is significantly mediated by financial behaviour. The positive path coefficient indicates that the connection concerning financial literacy and retirement planning is significantly mediated by financial behaviour.

5.2.4 Moderating Role of Gender

The fourth goal of the study is to investigate how gender influences young adults in Ghana's retirement planning when it comes to financial literacy. The outcome shows that there was a weak negative direct connection concerning gender and retirement planning. The results also show that gender does not moderate the connection concerning financial literacy and retirement planning. The positive path coefficient indicates that gender moderates the connection concerning financial literacy and retirement planning in a way that is positive but insignificant.

5.3 Conclusion

The study's goal is to investigate the impact of financial literacy on retirement planning and how gender and financial behaviour may influence this relationship. Descriptive and cross-sectional study designs were employed for this investigation. Utilizing a quantitative research approach, this study was carried out. A purposive sampling strategy was used to choose 300 participants. A structured interview guide is the principal data collection method. SPSS vs26 and SmartPLS 4 were used for the data analysis. Inferential and descriptive research approaches were used to analyse the data. The outcome demonstrates that there was a positive, significant direct impact on retirement planning and financial behaviour. The outcome also demonstrates that the connection concerning financial literacy and retirement planning is positively mediated by financial behaviour. The results also show that gender does not moderate the connection concerning financial literacy and retirement planning. The large mediating influence of financial behaviour indicates the need for practical, hands-on financial seminars or programmes to assist retirees in using their financial literacy.

5.4 Recommendation

In light of the research findings and inferences made in the preceding sections, the researcher makes the following suggestions.

In order to help retirees behave better financially and decrease their risk of financial instability, it is imperative that they get ongoing education. Education that is pertinent should be given to young age to maximise efficacy.

Furthermore, considering the present financial scenario in Ghana, where retirees are taking on excessive debt and investing in an unprofessional manner, financial education programmes should address a wider array of financial topics rather than just saving and spending.

The large mediating influence of financial behaviour indicates the need for practical, hands-on financial seminars or programmes to assist retirees in using their financial literacy.

It is significant to remember that certain programmes or workshops ought to take gender into consideration when identifying the gaps in or obstacles to both male and female retirees' financial behaviour.

Basic financial concepts like the time worth of money, compound interest, and inflation should be taught to government workers. Financial ideas like diversification and investment risk should be taught to government personnel as well.

5.5 Limitations and Future Scope of the Study

It is challenging to determine the causal connection concerning the variables in this study due to the cross-sectional nature of the data collected. This problem can be solved in future studies by using a longitudinal study. Furthermore, by employing quantitative approaches to investigate the link between financial behaviour and retirement planning and how this relationship may be influenced by gender and financial behaviour, a qualitative approach may be used to do the same research in the future. Further statistical analytic techniques may be used in future research to evaluate the impact of financial literacy on retirement planning and how this link may be influenced by financial behaviour and gender, according to the study. When examining the link between financial literacy and retirement planning, future research should take financial numeracy into account.

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APPENDIX

SURVEY QUESTIONNAIRE

Dear Sir/ Madam,

My name is ……….,. A student at the Kwame Nkrumah University of Science Technology (KNUST). This survey instrument has been designed to enable me to research the topic: **"**The effect of financial literacy on retirement planning among young adults: the role of gender. Any information provided will be used for academic purposes ONLY. There are no risks associated with your participation, and your responses will remain confidential and anonymous.

SECTION A: RESPONDENT'S BIOGRAPHY

When completing this questionnaire, please tick **[√]** in the applicable box or provide an answer as applicable.

Please answer the following questions:

1. *Gender*: Male ☐ Female ☐
2. *Age*

   18-20 years ☐ 21-25 years ☐ 26-30 years ☐ 31-35 years ☐
3. *Level of Education*

   Junior High School ☐ Senior High School ☐ Diploma ☐ Bachelor's Degree ☐ Graduate Studies (Master / PhD) ☐ Others ☐ For Others, Please specify…
4. *Marital Status*

   Married ☐ Unmarried ☐
5. Income (Per Month)

   1000-3999 ☐ 4000-7999 ☐ 8000-19999 ☐ 20000-29999 ☐ above 30000
6. Employment Status

   Employed ☐ Unemployed ☐

SECTION B: Financial Literacy and Retirement Planning

Please answer the following questions on financial literacy and retirement planning: On a scale of 1 to 5 ***(1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree)*** indicate your opinion ***by ticking √ where appropriate*** in the following statements.

Item	**Statement**	**1**	**2**	**3**	**4**	**5**
	Financial Literacy					
FL1	I have a written financial objective of what I want to achieve in a year					
FL2	I prepare a written budget for income and expenditure					
FL3	Employers are responsible for providing the majority of funds that you will need for retirement.					
FL4	Your bank will usually call to warn you if you write a check that would overdraw your account					
FL5	You should have an emergency fund that covers two to six months of your expenses					
FL6	I cannot afford any possible loss of capital regardless of the potential return.					
FL7	Although stocks historically earn better than other types of securities, I will forego some potential future gains to reduce volatility and earn a steady stream of income					
FL8	I believe in the power of compounding income and growth and want a combination of the two.					
	Retirement Planning					
RP1	I am someone who is not concerned about retaining control over my pension fund.					
RP2	I am someone who requires a guaranteed income for life with no investment risk whatsoever. I want certainty for the rest of my life on the income I will receive					
RP3	I am someone who wishes to maximize my income immediately and understand that the value of this income will erode during my retirement due to inflation.					

RP4	I am happy to commit to the same basis of retirement income for the rest of my life.					
RP5	I am concerned about the impact of inflation on my retirement income. I would be willing to take a degree of investment risk to help mitigate inflation.					
RP6	I am someone who would consider a combination of different options to help meet my overall retirement needs.					
RP7	I am somebody who would be willing to take a high level of risk in retirement to benefit from the potential for good investment performance					

SECTION C: Financial Behaviour

Please indicate how often you have engaged in the following activities in the past six months: ***(1=Never, 2=* Seldom*, 3=* Sometimes*, 4=Often, 5=Always*)** indicate your opinion ***by ticking √ where appropriate*** in the following statements.

Financial Behaviour						
No.	***Statement***	***1***	***2***	***3***	***4***	***5***
FB	Comparison shopped when purchasing a product or service					
FB1	Paid all your bills on time					
FB2	Kept a written or electronic record of your monthly expenses					
FB3	Stayed within your budget or spending plan					
FB4	Paid off the credit card balance in full each month					
FB5	Maxed out the limit on one or more credit cards					
FB6	Made only minimum payments on a loan					
FB7	Began or maintained an emergency savings fund					
FB8	Saved money from every paycheck					
FB9	Saved for a long-term goal such as a car, education, home, etc.					
FB10	Contributed money to a retirement account					
FB11	Bought bonds, stocks, or mutual funds					

Thank you for participating in the survey.