

Impact of Financial Behaviours on Perceived Retirement Adequacy and Satisfaction: The Mediating Role of Retirement Planning among Working Professionals

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Abstract

We examine the mediating function of retirement planning in association between core financial behaviours specifically, investment allocation, borrowing pattern, and spending practice with the dependent variables retirement adequacy and retirement satisfaction among professionals in the information technology (IT) and information technology-enabled services (ITES) sectors. A survey was administered to 385 professionals employed in India's IT and ITES sectors, and partial least squares structural equation modelling (PLS-SEM) was employed to test hypotheses grounded in Behavioural Learning Theory. The analysis evaluates whether retirement planning effectively channels these financial behaviours into improved retirement outcomes. The findings indicate that retirement planning significantly mediates the influence of borrowing pattern on retirement adequacy and the influence of spending practice on retirement adequacy, consistent with established Variance Accounted For (VAF) thresholds for full mediation. While investment allocation demonstrates a positive direct relationship with retirement outcomes, its indirect effect through retirement planning is less pronounced compared to borrowing and spending behaviours. Overall, the study conceptualizes retirement planning as a proactive, intrinsic mechanism through which individual financial behaviours are translated into retirement readiness. By empirically validating the mediating role of retirement planning, the research extends Behavioural Learning Theory into the domain of retirement finance and offers actionable implications for policymakers, financial educators, and individuals seeking to enhance retirement adequacy through targeted behavioural and financial literacy interventions.

Keywords: Financial Literacy; Retirement; Retirement Adequacy; Retirement Planning; Retirement Satisfaction.

1. Introduction

The transition to retirement constitutes a major life-course change, involving a shift from active employment to a more tranquil phase of life and accompanied by a reconfiguration of personal identity. This transition often alters societal perceptions, as retirees may move from being regarded as self-reliant and productive to being viewed as potentially dependent on others (Froidevaux et al., 2016). Adjusting from a goal-driven, high-intensity work life to one characterized by increased leisure, solitude, and a slower pace can be particularly challenging for many individuals. Such changes may generate psychological distress, especially when uncertainty about the future is compounded by inadequate financial and social resources (Safari et al., 2021). Consequently, comprehensive preparation for post-retirement life is essential to ensure financial security, psychological well-being, and a sense of purpose, thereby fostering contentment and fulfilment in later life (Amorim & França, 2020).

Initiating retirement planning at an early stage is crucial for securing financial stability in the future and represents a significant life goal (Frank et al., 2023). This strategy fosters independence and self-sufficiency, enabling individuals to preserve their pre-retirement standard of living without compromising quality (Gallego-Losada et al., 2021). Financial education is fundamental to effective and systematic retirement planning (Chen & Chen, 2023). Establishing responsible financial practices early in one's career yields sustained long-term financial stability and improved retirement readiness. Improved financial literacy undoubtedly contributes to a more secure financial

position post-retirement (Ricci and Caratelli, 2017). Individuals are considered adequately prepared for retirement when they can stop working at their preferred age and sustain their pre-retirement lifestyle using the assets they have accumulated during their working years (Yuh et al., 2006).

Numerous studies have examined the awareness and availability of pension plans offered by various countries, particularly in developed nations such as the USA, UK, and Australia. These countries exhibit a sufficient level of financial stability and literacy, supported by robust government strategies to ensure a satisfactory post-retirement period (Mauldin et al., 2016). In contrast, retirement policies, pension plans, and social welfare schemes for the elderly in developing nations, such as India, are comparatively less beneficial (Fan & Chatterjee, 2017). Several Indian states are reverting to the Old Pension Scheme ("OPS"), despite extensive critical literature opposing it (NLSI review). There exists a significant disparity in the perception of financial security among Southeast Asian countries, particularly within the Indian subcontinent, which can be primarily attributed to cultural influences and a pervasive lack of financial literacy among the populace (Harhapet et al., 2022). The concept of financial literacy is not widely recognized in India, even among educated, academically high-achieving, and high-income groups, resulting in a general unawareness of the limited policies and schemes offered by the government.

The study examined the impact of the three behaviours of finance - namely, investment allocation, borrowing pattern, and spending practice on retirement planning among high-income IT and ITES professionals aged 21 to 65 years residing in Indian metropolitan cities. The selection of the sample from the IT and ITES sectors was conducted for two specific reasons. First, the share of the IT-ITES sector in the GDP of India is 7.4% in FY 2024 (IndBiz-Economic Diplomacy Division), with a revenue of US\$254 billion (US\$54 billion domestic & US\$200 billion export) in FY 2024, with an estimated \$283 billion in FY25, employing 5.8 million professionals as of March 2024. (The Hindu, India Brand Equity; The Times of India; Business Standard). Second, the premium and highly educated nature of the sector often leads researchers and planners to overlook the needs of IT-ITES professionals, as these individuals are frequently assumed to possess financial literacy (Saini et al., 2023). It is important to recognize that financial literacy encompasses not only the knowledge and understanding of financial concepts and risks (Amorim & Franca, 2020) but also the skills, motivation, and confidence to apply such knowledge and understanding in making effective decisions across various financial contexts (Lusardi, 2019). The mismatch between individuals' perceived financial knowledge and their objectively assessed financial literacy can be substantially mitigated through a committed effort to continuously learn and update their understanding. This process is essential for achieving the desired retirement savings necessary to sustain a prolonged retirement period.

Existing research unequivocally demonstrates that merely enhancing financial literacy and awareness regarding pensions or the accumulation of retirement funds is insufficient (Yeh, 2022). Investigations into retirement adaptation have predominantly been conducted in Western nations, including the United States, Australia, and the United Kingdom. In contrast, India's retirement, pension, and social welfare programs are comparatively less generous than those of many other countries. The lack of a robust social security scheme in India must be considered when planning for retirement savings (Seay et al., 2015). To better comprehend the research gap, this study examines retirement planning through the lens of individuals' financial behaviours. We categorize all attributes into individual-level constructs to assess the influence of financial literacy on retirement planning (Grotz, 2016). The goal of this research is to identify elements that will evolve the retirement planning process and to organize individual-level variables related to retirement adequacy and satisfaction.

2. Literature Review

2.1. Financial behaviours for retirement planning

The influence of financial behaviour on retirement planning is evident through the decisions individuals make during their active employment years. Understanding financial decision-making through individual traits and experiential patterns is crucial (Benartzi & Thaler, 2007) as it can directly impact the financial resources available to them upon retirement. Financial literacy significantly contributes to retirement financial behaviour, necessitating planning, saving, and managing various investment options. Studies have evidenced a significant relationship between income and self-reported subjective financial literacy, as well as between income and fact-based financial literacy (Hauff et al., 2020). Engaging in disciplined financial practices, such as regular savings, judicious spending, and informed investment, establishes a solid foundation for a secure retirement.

A primary factor contributing to inadequate retirement planning is the lack of individual engagement in financial matters. Although the IT and ITES sectors present numerous opportunities for financial planning, it remains the responsibility of individuals to capitalize on these options (Frank et al., 2025). The concern over insufficient retirement funds has heightened the need for comprehensive knowledge of saving strategies to increase retirement income (McKenzie & Liersch, 2011). Limited involvement results in a complete absence of information gathering and inactivity in selecting investment avenues for retirement plans (CarlssonHauff, 2014), often leading to subpar returns and losses. A deficiency in financial knowledge and skills hinders individuals' ability to rationally determine how to accumulate and use assets throughout their lives, making it a challenging task that people often avoid (Benartzi & Thaler, 2007). This study examines the impact of financial behaviour on retirement planning by utilizing exogenous latent variables of financial behaviour to investigate their influence and determine whether these variables mutually and socially affect the planning process. Consequently, we hypothesize that:

H1: There is a significant relationship between Investment Allocation, Borrowing Pattern, Spending Practice, and Retirement Planning.

2.2. Financial behaviours and retirement adequacy

Evaluating retirement adequacy necessitates a comprehensive examination of all retirement income sources. To determine retirement adequacy, a subjective assessment of savings adequacy is utilized to ascertain whether individuals perceive that they are saving sufficiently to ensure a comfortable retirement (Hershey et al., 2007). Individuals can achieve retirement income sufficiency through positive mindsets and effective financial planning (Lai et al., 2009). The concept of adequacy encompasses various aspects of economics, psychology, and health policy (Skinner, 2007). Moreover, retirement income adequacy varies among individuals based on factors such as lifestyle and pre-retirement earnings. It is difficult to make a general statement about financial adequacy, even for those in the IT and ITES sectors, due to the wide range of individual circumstances. Numerous factors, including geographic location, company size, personal income, spending patterns, investments (Lusardi & Mitchell, 2013), and other individual choices, significantly influence one's financial situation (Lim & Lee, 2021). Consequently, developing a robust investment strategy is essential for building a retirement fund and ensuring financial stability during one's post-employment years.

Our second hypothesis investigates the individual and contextual elements that predict the perceived evolution of adequacy over time, as well as the intervening factors leading to retirement adequacy. Although studies have explored individual and contextual antecedents of adequacy, we did not find any research examining how financial behaviour influences retirement adequacy. As individuals age in distinct ways (Caspi et al., 2005; Hertzog et al., 2008), experiencing frequent changes in their needs and perceptions, proactive behaviours are essential for an individual's adequacy. The seemingly simple question of retirement adequacy is quite intricate (Skinner, 2007). The research highlights that many households face significant challenges in accumulating the wealth necessary to maintain consistent consumption throughout retirement. Using the conventional life cycle model, which assumes steady consumption over the lifespan and that households save during their working years to support income shortfalls in retirement, we propose and hypothesize that:

H2: There is a significant relationship between Investment Allocation, Borrowing Pattern, Spending Practice, and Retirement Adequacy.

2.3. Financial behaviors and retirement satisfaction

Well-being is profoundly affected by satisfaction, which is intrinsically linked to quality of life and overall life contentment (Diener & Emmons, 1984). According to the OECD, life satisfaction pertains to individuals' evaluation of their entire life experience, rather than their transient emotions. Retirement satisfaction underscores the significance of an individual's current state (Leung & Earl, 2012; Van Solinge&Henkens, 2008) and their ability to amass resources through planning, facilitating a well-prepared retirement. It serves as a critical indicator of well-being and life quality (Amorim et al., 2020) and denotes a sense of fulfilment during the life stage (Van Solinge&Henkens, 2008) when individuals permanently cease their paid employment (Denton & Spencer, 2009).

Retirement satisfaction is not a homogeneous experience, as individuals with abundant resources are less likely to encounter changes in satisfaction related to retirement (Pinquart& Schindler, 2007). A study conducted in Sweden found that individuals who retired abruptly experienced greater variability in life satisfaction compared to those who retired gradually. This study attributed these differences to variations in individuals' resources during their active employment period and post-retirement (Hansson et al., 2017). Factors such as financial planning, anticipated financial contentment during retirement, and attitudes towards retirement (Paullay et al., 1994) are pivotal predictors of retirement intentions and contribute to elevated satisfaction levels post-retirement. The synthesis of these concepts leads to the following hypothesis:

H3: There is a significant relationship between Investment Allocation, Borrowing Pattern, Spending Practice, and Retirement Satisfaction.

2.4. Retirement planning: antecedent

Retirement planning entails setting retirement goals by estimating future expenses, evaluating one's current financial situation, and devising a plan to guarantee a secure and stable retirement, ultimately reaching adequacy and satisfaction. It acts as an intermediary and channelizes financial behaviours to explicit investment decisions and serves as a harbinger to financial well-being. The simple task of retirement planning makes individuals more conscious of how they spend and the need to save, considering whether spending money on certain items is necessary. It generates awareness of long-term financial goals, prompting individuals to prioritize needs over wants and delay gratification to build retirement security.

Attitudes toward retirement planning differ among workers across various age groups. The World Economic Outlook Database reports that life expectancy in India has risen from 52.51 in 1980 to 70.19 in 2022, a 17-year increase, with an estimated total population of about 1.417 billion in 2022. India now boasts the world's largest population, with its inhabitants making up over one-seventh of the global population. Initiating retirement planning early with well-organized financial strategies enables individuals to secure a more robust and protective post-retirement lifestyle with increased investment portfolios (Su et al., 1997). Additionally, unique demographic trends, aging population, and longer life spans have heightened the necessity for early retirement planning and investment (Jais&Asokumar, 2020). Research indicates that the younger generation is ideally positioned to begin retirement planning, as they have more time available for saving and investing. Determining the appropriate amount to invest for retirement is complex due to numerous uncertainties. Individuals planning for retirement must strike a balance between their perceived investment capacity and their desire to save for a comfortable lifestyle. From this, we propose the following hypotheses:

H4a: Retirement planning mediates between investment allocation and retirement adequacy.

H4b: Retirement planning mediates between investment allocation and retirement satisfaction.

The fields of cognitive aging, developmental life span psychology, and gerontology have converged on the idea of successful aging in later life (Rowe & Kahn, 1997, 2015) and the psychological mechanisms that foster adaptive functioning and well-being throughout one's lifetime (Baltes&Baltes, 1990). People generally make prudent financial decisions, allocate resources to mitigate unforeseen challenges, and prepare for potential future events. Retirement planning raises awareness of various aspects retirement process (Leandro-França et al., 2016), increasing the likelihood of assessing available resources and developing strategies. However, many individuals' approach to retirement lacks a proper plan (Masran& Hassan, 2017). Structured planning allows for better utilization of limited time to invest in initiatives that ensure security and comfort during retirement (Kimiyağahlam et al., 2019). Research strongly suggests that employers should play a vital role in helping their employees make early plans, facilitating a smooth transition from work to retirement. A "New Straits Times" (2016) article highlighted significant gaps in employers' retirement policies across industries, with many employers viewing retirement planning as a personal responsibility of employees. Moreover, most employers only encourage staff aged 45 and above to attend retirement planning seminars and workshops, which is considered too late for effective planning (Chalise & Anong, 2017). In India, the statutory retirement age is 58 or 60 years, providing a 15-year window for retirement planning. Policymakers and retirement product providers should stimulate the retirement planning process, as many of these products are stalled by individuals' unreceptive attitudes towards retirement planning as a crucial life decision (Nur et al., 2018). This study explores various aspects of retirement financial behaviours and their influence on retirement planning, adequacy, and satisfaction in relation to individuals' spending practices and borrowing patterns to promote optimal financial stability. Based on the above, the following hypotheses were developed to be tested:

H4c: Retirement planning mediates between borrowing pattern and retirement adequacy.

H4d: Retirement planning mediates between spending practice and retirement adequacy.

H4e: Retirement planning mediates between borrowing pattern and retirement satisfaction.

H4f: Retirement planning mediates between spending practice and retirement satisfaction.

2.5. Behavioral Learning Theory and Conceptual Framework

Behavioral Learning Theory, proposed by Pavlov and Skinner, asserts that individuals acquire behaviors through processes such as conditioning, reinforcement, and observation, rather than through innate understanding. In the context of financial behaviours impacting retirement planning, this theory elucidates how individuals develop saving habits and financial strategies over time. For instance, when individuals receive positive reinforcements as employer-matched contributions, tax incentives, or observable account growth, they are more inclined to persist in saving for retirement. Automatic enrolment in retirement plans and ongoing financial education further support these behaviours by eliminating obstacles and simplifying decision-making. Additionally, social learning significantly influences financial behaviours, as individuals often emulate the financial practices of their parents, peers, and colleagues. Consequently, applying principles from Behavioral Learning Theory can inform the development of effective retirement planning strategies, particularly by emphasizing early exposure, consistent reinforcement, and supportive social and institutional contexts. Within the scope of this research, which explores the impact of the three financial behaviours on retirement planning, the Behavioral Learning Theory is identified as the most suitable framework for our study as it suggests that retirement planning is not solely the result of rational decision-making; rather, it is influenced by learning, experiences, rewards, and environmental cues.

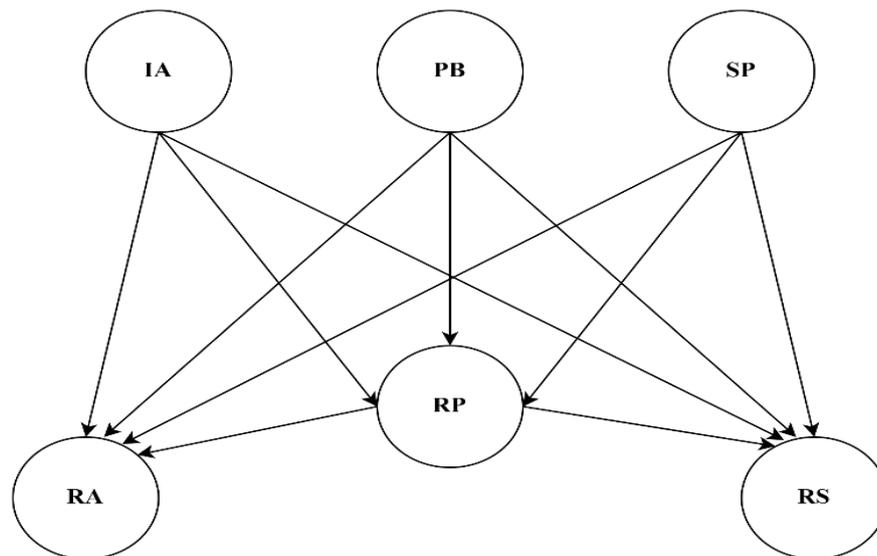


Fig. 1: Conceptual Framework (IA: Investment Allocation, PB: Borrowing Pattern, SP: Spending Practice, RA: Retirement Adequacy, RP: Retirement Planning, RS: Retirement Satisfaction).

The framework presented in Figure 1 exemplifies the profound applicability of this theory in comprehending the complexities of individual retirement planning to achieve retirement adequacy and satisfaction. Drawing from the above discussion, the suggested conceptual framework highlights how investment allocation, borrowing patterns, and spending practices influence retirement adequacy and satisfaction, with retirement planning serving as a mediating factor.

3. Methodology

The participants selected were highly qualified IT and ITES professionals from seven IT & ITES hubs of India, as listed by the National Association of Software and Services Companies (NASSCOM), viz., Bangalore, Chennai, Bhubaneswar, Delhi, Hyderabad, Kolkata, and Pune. The research included a questionnaire on investment allocation, borrowing pattern, spending practice, retirement planning, retirement adequacy, and retirement satisfaction, seeking to ascertain individuals' level of awareness and readiness for retirement. The survey measured 385 qualified participants as the focal sample who reported full-time employment within the age bracket of 21 to 65 years. The sample was largely female, with $N = 208$ (0.54), followed by the male population at $N = 177$ (0.46). The study identified this trend in six locations except for Bhubaneswar, which had 0.51 male respondents. Job tenure ranged from 2 years of experience to a maximum of 31 years. Most respondents were from the experience bracket of 11 - 15 years of experience, $N = 178$ (0.46), followed by respondents with the experience level of 0 - 5 years, $N = 104$ (0.27). The current research endeavor has exogenous latent variables (independent), endogenous latent variables (dependent), as well as mediating variables. Therefore, the need for the parsimonious structural model has made it imperative to use the PLS-SEM approach (Henseler et al., 2009). Accordingly, we used the second-generation software SMART PLS 4 to analyze the data, through which the conceptual framework was developed. Here, the measurement model assesses the loading of all the indicators used, and the structural model helps in testing the hypothesis empirically.

For measurement model assessment, the PLS-SEM approach recommends the use of composite reliability to measure the internal consistency of the variables with a threshold value equal to or greater than 0.70. (Henseler et al., 2012). The convergent validity of the variables is measured using Average Variance Extracted (AVE) with a threshold of 0.50 (Wasko & Faraj, 2005; Wixom & Watson, 2001), denoting the degree of correlation of a specific measure of reflective construct in relation to other measures of the construct. Further, the indicator absoluteness is measured through outer loadings where the identified threshold cut-off values for endogenous constructs are 0.20 for 'weak', 0.50 for 'moderate', and 0.75 for 'high' as per prior studies (Hair et al., 2012). The Fornell-Lacker (1981) criterion is used to assess the discriminant validity of the variables, which compares the square root of AVE and other latent variables.

3.1. Description of variables

The conceptual framework consists of three financial behaviours as exogenous latent variables, which include investment allocation (IA), borrowing pattern (PB), and spending practice (SP). As endogenous latent variables, we considered retirement adequacy (RA) and retirement satisfaction (RS). The study also used retirement planning (RP) as the mediating variable to measure how the identified financial behaviours interact with the endogenous variables through superior financial literacy to achieve retirement adequacy and retirement satisfaction. Table 1 represents the list of exogenous variables and their abbreviations that are regressed on each endogenous variable.

Table 1: Explanation of the Variables

Si. No.	Variables measured	Construction of variables	Construct description
1.	Investment Allocation (IA)	Widjaja & Setini (2020) Widyastuti et al. (2016) Raut (2020) Pillai & Sarla, (2015) Ibbotson, et al. (2007)	Investment allocation determines the portfolio for investment and the quantum an individual should allocate to generate maximum returns. It encompasses the attitude of an individual towards saving practices.
2.	Borrowing Pattern (PB)	Lusardi & Tufano (2015) Lusardi & de Bassa (2013)	Borrowing pattern examines the methods of borrowing. It measures an individual's knowledge about debt and self-assessed financial knowledge.
3.	Spending Practice (SP)	Nemeth & Zsoter (2017) Ali et al., (2014) Kubitza et al., (2019) Ibbotson, et al. (2007)	Spending practice includes the system in which individuals manage their finances and allocate funds for various purchase activities.
4.	Retirement Planning (RP)	Afthanorhan et al. (2020) Noone et al., (2010)	Retirement planning involves proactive preparation for future financial needs by establishing specific retirement objectives and calculating the requisite financial resources to achieve these goals and aspirations independently.
5.	Retirement Adequacy (RA)	Mooney et al., (2021) Afthanorhan et al. (2020)	Retirement adequacy aims to assess the retirement corpus by integrating all potential sources of income, savings, and investments, thereby refining financial behaviours.
6.	Retirement Satisfaction (RS)	Principi et al., (2018) Ali et al., (2014)	Retirement satisfaction evaluates the transition into retirement, particularly considering the economic factors, as financial preparedness significantly influences the level of satisfaction experienced.

4. Empirical Evaluation

4.1. Measurement model assessment: reliability

The PLS-SEM approach supports the measurement of reliability through composite reliability. In comparison to Cronbach's Alpha, composite reliability provides a more accurate reflection of internal consistency reliability. Moreover, composite reliability offers two distinct advantages over Cronbach's Alpha. Firstly, the composite reliability metric does not assume that all indicators contribute equally to the construct, which is the conventional method in determining Cronbach's Alpha value. Secondly, composite reliability does not underestimate internal consistency reliability by neglecting the tendency to increase the value of internal consistency reliability as the number of items on the scale increases, a limitation observed in the Cronbach's Alpha measure (Cronbach, 1951). The results indicate that all variables exceed the threshold value of 0.70 (Table 2) (Henseler et al., 2012), suggesting that the variables employed in the study adequately represent the theoretical meaning embodied in the construct, thereby enhancing the content validity of the relevant constructs.

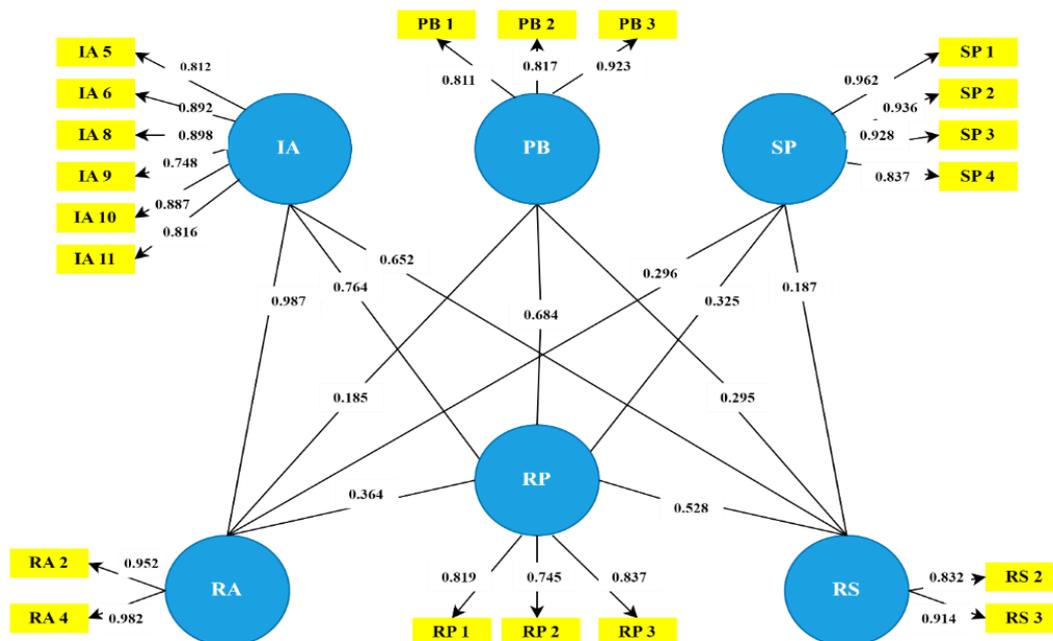


Fig. 2: Measurement Model Assessment: Reliability (IA: Investment Allocation, PB: Borrowing Pattern, SP: Spending Practice, RA: Retirement Adequacy, RP: Retirement Planning, RS: Retirement Satisfaction).

Figure 2 displays the outer loadings of the indicators that correspond to the exogenous latent variables of financial behaviour, such as investment allocation (0.812, 0.892, 0.898, 0.748, 0.887, 0.816), borrowing pattern (0.811, 0.817, 0.923), and spending practice (0.962, 0.936, 0.928, 0.837). These results demonstrate that each of these indicators makes a significant contribution to its respective variables and is a crucial driver for our mediating variable, retirement planning. We also measured the outer loading of our mediating variable and found that the three indicators associated with retirement planning, namely retirement planning creating awareness on various pursuits of retirement (RP1, 0.819), facilitation to establish and develop retirement strategies (RP2, 0.745), and determining the quantum of resources (RP3, 0.837), all exceed the threshold of 0.70. The endogenous latent variables showed a high level of significance in the indicator outer loading, with retirement adequacy at (0.952, 0.982) and retirement satisfaction at (0.832, 0.914). This proves that the indicators of all constructs exhibit appropriate amounts of outer loading, making the selected variables extremely important and the framework strong.

Table 2: Result Summary for Reflective Measurement Models

Latent Variable	Elements that the indicator captures	Survey Questions	Outer Loadings	Indicator Reliability	Composite Reliability	Convergent Validity (AVE)
IA	IA 5	Unattractive retirement products are the reason for not saving for retirement	0.812	0.574	0.856	0.843
	IA 6	Medical expenses are the reason for inadequate savings for retirement	0.892	0.791		
	IA 8	Estimated returns during retirement influence investment decision-making	0.898	0.732		
	IA 9	Relying on the experiences of other investors while making investment decisions influences investment decision-making	0.748	0.621		
	IA 10	Monitoring the movement of the investment product that I intend to invest in, to influence investment decision-making	0.887	0.691		
	IA 11	Checking the health of the portfolio at regular intervals influences investment decision-making	0.816	0.595		
PB	PB 1	Poor financial planning is the reason for increased borrowing.	0.811	0.617	0.873	0.796
	PB 2	Inadequate income is the reason for increased borrowing	0.817	0.737		
	PB 3	Lifestyle choices have increased the amount of borrowing	0.923	0.782		
SP	SP 1	General health of the family changed in the last 3 years?	0.962	0.819	0.864	0.764
	SP 2	The poor health condition of the family has forced them to invest more in health care	0.936	0.928		
	SP 3	Inadequate financial literacy is the reason for increased spending	0.928	0.814		
	SP 4	Excess and frivolous spending have stalled my potential for retirement planning	0.837	0.755		
RP	RP 1	Retirement planning has facilitated the awareness of various issues related to retirement	0.819	0.648	0.724	0.865
	RP 2	Retirement planning has helped to assess the available resources to establish strategies and develop them.	0.745	0.592		
	RP 3	I know how to determine how much money I need to live comfortably throughout my retirement years	0.837	0.513		
RA	RA 2	I know how much money is necessary to live comfortably throughout retirement	0.952	0.846	0.965	0.706
	RA 4	I have adequate financial support from my investments, which were made for retirement	0.982	0.831		
RS	RS 2	I am totally satisfied with my retirement plans	0.832	0.797	0.832	0.828
	RS 3	I am totally satisfied with my retirement portfolio	0.914	0.832		

Source: Author's own contribution (IA: Investment Allocation, PB: Borrowing Pattern, SP: Spending Practice, RA: Retirement Adequacy, RP: Retirement Planning, RS: Retirement Satisfaction).

To measure convergent validity, we used the Average Variance Extracted (AVE) as recommended by Naylor et al. (2012), with a threshold value above 0.50 (Wasko&Faraj, 2005; Wixom & Watson, 2001). A given construct can explain more than half of its indicators' variances if the AVE threshold value is above 0.50. In an acceptable model, the AVE threshold value should be greater than 0.50 (Chin, 1998; Höck&Ringle, 2010). In our study, the convergent values of all the variables are more than 0.50 (Table 2). Therefore, there exists convergent validity in all three financial behaviours, ie, exogenous latent variables (0.843, 0.796, 0.764), mediating variable retirement planning (0.865), and the endogenous latent variable retirement adequacy (0.706) and retirement satisfaction (0.828) of our model.

Table 3: Discriminant Validity by Fornell-Larcker Criterion

	IA	PB	RA	RP	RS	SP
Investment Allocation (IA)	0.918					
Borrowing Pattern (PB)	0.598	0.892				
Retirement Adequacy (RA)	0.571	0.607	0.840			
Retirement Planning (RP)	0.587	0.552	0.573	0.930		
Retirement Satisfaction (RS)	0.574	0.496	0.504	0.573	0.910	
Spending Practice (SP)	0.466	0.588	0.589	0.467	0.443	0.874

Source: Author's own contribution.

To measure the discriminant validity (Table 3), we used the Fornell-Larcker (1981) criterion (Hair et al., 2014, p.105), which is a comparison between the square root of AVE and other latent variables. It measures the uniqueness of a given construct (Chin, 1998; Hair et al., 2012; Fornell-Larcker, 1981; Wasko&Faraj, 2005). Table 3 demonstrates how the square root of AVE of every latent variable exceeds (both horizontally and vertically) its correlation with other latent variables, revealing the distinction of each construct of the model and proving that the model is highly effective and reliable.

4.2. Structural model assessment: bootstrapping: the algorithm settings

The study conducted a non-parametric test, as there was no assumption of distribution. As a result, to test the significance of coefficients, a non-parametric bootstrapping approach was used as per the procedure detailed below.

- 1) The count of valid observations in the original sample is 385. Following the rule of thumb, 5000 bootstrap samples were invoked in the process of running the PLS-SEM algorithm. Sufficient care is taken to ensure that the number of cases is equal to the number of valid observations in the data set, i.e., 385 (Hair et al., 2012).
- 2) Comparison of the empirical t values and theoretical/critical t values used a two-tailed test at 5% level of significance. The critical t value, used for comparison, is 1.96 (Chin, 1998).
- 3) For obtaining empirical values, the 'no sign change' option is used.
- 4) Bootstrapping confidence intervals of the study is duly reported.

Table 4: Path Coefficient and P-Values After the Incorporation of Mediators

Path	Original Sample (O)	Sample Mean (M)	T Statistics (O/STDEV)	P Values
Investment Allocation -Retirement Adequacy	0.795	0.879	4.534	0.00
Borrowing Pattern -Retirement Adequacy	0.175	0.266	4.084	0.00
Spending Practice -Retirement Adequacy	0.397	0.396	4.936	0.00
Investment Allocation -Retirement Satisfaction	0.053	0.163	3.749	0.00
Borrowing Pattern -Retirement Satisfaction	0.061	0.239	3.907	0.00
Spending Practice -Retirement Satisfaction	0.338	0.412	4.835	0.00
Investment Allocation -Retirement Planning	0.239	0.267	5.119	0.00
Borrowing Pattern -Retirement Planning	0.227	0.253	3.273	0.00
Spending Practice -Retirement Planning	0.198	0.221	2.37	0.00

Source: Author's own contribution

The coefficient of determination gives us an idea of the strength of relationships that exist in the above-mentioned structural model (Table 4). The R^2 value, i.e., the coefficient of determination, is for the target endogenous constructs of the study. The coefficient of determination is the criterion through which we assess the structural model (Henseler et al., 2012). This means that there is predictive validity in this structural model. Various thumb rules explain and analyse if the observed R^2 values are high (Hair et al., 2012). According to prior studies, the identified threshold cut-off values for endogenous constructs are 0.20 for 'weak', 0.50 for 'moderate', and 0.75 for 'high'. This is also reinforced by the t-value, where the threshold limit at 5% level of significance should be above 1.96.

The direct effect of the exogenous latent variables on the mediating variable retirement planning (RP) is found to be strong for investment allocation (IA), 0.239, and borrowing pattern (PB), 0.227. The variable spending practice (SP) 0.198 was moderate. The empirical t-value is substantially above 1.96 at a 5% level of significance, thus validating hypothesis 1. The effect on the endogenous latent variable retirement adequacy (RA) is found to be strong with investment allocation (IA) 0.795, as compared to borrowing pattern (PB) 0.175 and spending practice (SP) 0.397. Since the empirical t-value is higher than 1.96 at a 5% level of significance, we can confidently accept hypothesis 2. The direct effect of the exogenous latent variables on the endogenous latent variable retirement satisfaction (RS) is found to be strong for spending practice (SP), 0.338, followed by borrowing pattern (PB), 0.061, and investment allocation (IA), 0.053. The empirical t-value above 1.96 at a 5% level of significance, however, substantiates hypothesis 3.

4.3. Evaluation of mediator analysis

The mediating effects of retirement planning were assessed to explore the significance of its intervention in the liaison between investment allocation, borrowing pattern, and spending practice with retirement adequacy and retirement satisfaction. These assessments pertain to hypotheses 4a to 4f that state the mediating effect of retirement planning in the relationship between all exogenous latent variables with endogenous latent variables, retirement adequacy, and retirement satisfaction. The structural model of the present study conceptualizes the direct effect of all exogenous latent variables on endogenous latent variables, and it was found to be significant. Further, the study tested whether the direct effect of all exogenous latent variables on endogenous latent variables would be significant after the inclusion of the mediator in the model using algorithms and bootstrapping (Hair et al., 2017). According to Hair et al. (2017), the mediating effect is calculated through VAF (Variance Accounted For), where the values above the threshold of 0.80 is considered as 'full mediation', above 0.20 as 'partial mediation and below 0.20 is considered as 'no mediation'. (Table 5&6). VAF is calculated by dividing the values of the variables' indirect effect by the summation of values of the variables' direct and indirect effect, ie, $VAF = \text{indirect effect} / (\text{direct} + \text{indirect effect})$.

Table 5: Mediating Effect of Retirement Planning(RP) on Retirement Adequacy (RA)

Construct	Path	Indirect Effect	Direct Effect	VAF	Mediating Effect
Investment Allocation (IA)	IA - RP - RA	0.472	-	0.743	Partial
	IA - RA	-	0.163		
Borrowing Pattern (PB)	PB - RP - RA	0.547	-	0.879	Full
	PB - RA	-	0.075		
Spending Practice (SP)	SP - RP - RA	0.937	-	0.814	Full
	SP - RA	-	0.214		

Source: Author's own contribution.

In relation to the mediator effect, as presented in Table 5, retirement planning serves as a mediator between investment allocation and retirement adequacy. The indirect effect of investment allocation on retirement adequacy, facilitated through retirement planning, is quantified at 0.472, while the direct effect is 0.163. The results of the Variance Accounted For (VAF) value 0.743 indicate partial mediation between investment allocation and retirement adequacy. Furthermore, the borrowing pattern exhibits an indirect effect of 0.547 and a direct effect of 0.075 on retirement adequacy, with a VAF of 0.879, signifying full mediation of retirement planning between borrowing pattern and retirement adequacy. Additionally, spending practice is associated with a VAF of 0.814.

Table 6: Mediating Effect of Retirement Planning (RP) on Retirement Satisfaction (RS)

Construct	Path	Indirect Effect	Direct Effect	VAF	Mediating Effect
Investment Allocation (IA)	IA - RP - RS	0.216	-	0.305	Partial
	IA - RS	-	0.493		
Borrowing Pattern (PB)	PB - RP - RS	0.452	-	0.770	Partial
	PB - RS	-	0.135		
Spending Practice (SP)	SB - RP - RS	1.1995	-	0.437	Partial
	SB - RS	-	1.5435		

Source: Author's Own Contribution.

The analysis of the mediating effect of retirement planning on retirement satisfaction, as presented in Table 6, indicates a partial mediation with values of 0.305 for investment allocation, 0.770 for borrowing pattern, and 0.437 for spending practice.

4.4. Importance performance matrix analysis (IPMA)

The relative importance and performance of exogenous constructs with endogenous constructs, retirement adequacy, and retirement satisfaction are analysed through importance performance matrix. "Importance" reveals the total influence. If the total effect of one construct is greater than the total effect of another, that construct is more significant (Fornell et al., 1996; Martilla & James, 1977; Slack, 1994). "Performance" measures the index values. If a construct has a higher mean value, it has higher performance, indicating good measurement paths (Hair et al, 2012; Rigdon et al, 2011; Höck et al, 2010; Völckner et al., 2010; Schloderer et al., 2014).

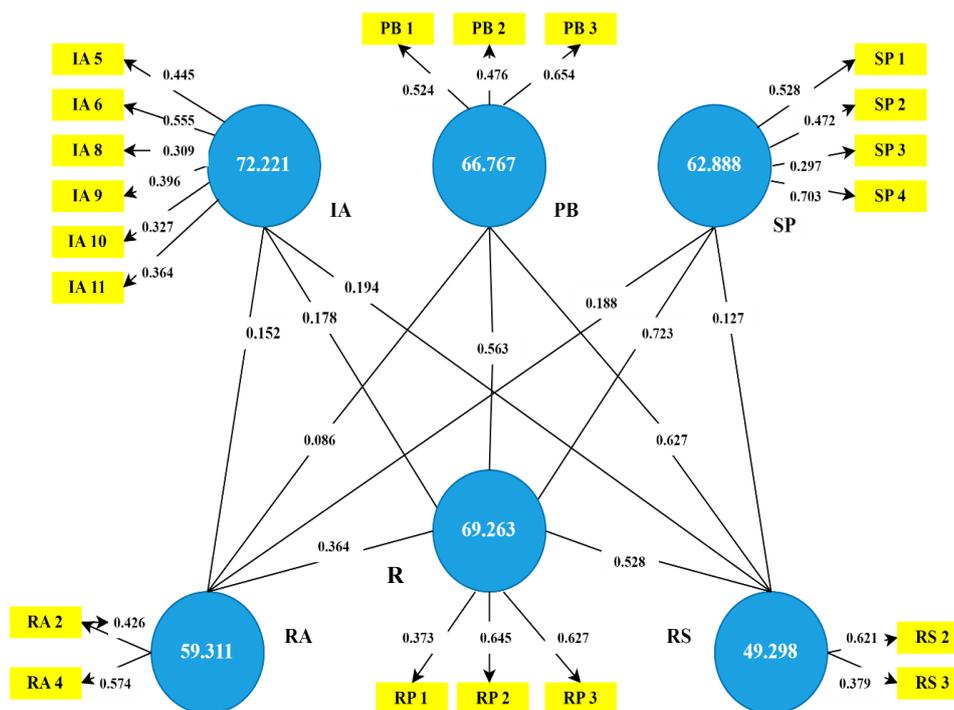


Fig. 3: Importance Performance Matrix Analysis (IPMA) of Endogenous Latent Variables with Exogenous Latent Variables (IA: Investment Allocation, PB: Borrowing Pattern, SP: Spending Pattern, RA: Retirement Adequacy, RP: Retirement Planning, RS: Retirement Satisfaction).

IPMA analysis (Figure 3) shows that the performance of Retirement Adequacy is 59.311, and the performance of Retirement Satisfaction is 49.298. By adding the path values of the exogenous latent variables, we can identify the exogenous variables based on their importance. The path value of the exogenous latent variable investment allocation (0.152), along with the performance of the endogenous latent variable retirement adequacy (59.311), gives us a total performance of 59.463. Borrowing pattern (0.086) enhances the retirement adequacy performance to 59.397. The variable spending practice (0.188) measured the overall retirement adequacy performance to 59.499. We also measured the exogenous variable effect on our second endogenous variable, retirement satisfaction. Investment allocation (0.194), along with the performance of endogenous latent variable retirement satisfaction (49.298), measured the total performance at 49.492. Borrowing pattern (0.627) contributed to a total retirement satisfaction performance of 49.925. Spending practice (0.127) measured the overall retirement satisfaction performance at 49.386.

4.5. PLS-MGA (multi-group analysis)

Parametric Multi-Group Analysis is an applied independent sample t-test to correlate paths between groups (Keil et al., 2000).

Table 6: Multi-Group Analysis Based on Demographic Location

Location	Path	Differences	p-value
Bangalore - Bhubaneshwar	SP -> RP	0.253**	0.026
Bhubaneshwar - Chennai	IA -> RP	0.601***	0.002
Bhubaneshwar - Delhi	IA -> RP	0.426***	0.009
Bhubaneshwar - Hyderabad	IA -> RP	0.392**	0.016
Bhubaneshwar - Kolkata	IA -> RP	0.358**	0.040
Chennai-Hyderabad	SP -> RA	0.316***	0.000
	SP -> RP	0.385**	0.029
Chennai-Kolkata	SP -> RA	0.213***	0.008
	SP -> RP	0.366**	0.041
Chennai-Pune	IA -> RP	0.482**	0.027
	SP -> RA	0.238***	0.010
Delhi-Kolkata	SP -> RP	0.555***	0.006
	PB -> RA	0.472*	0.073
Hyderabad-Kolkata	IA -> RP	0.333*	0.068
Kolkata-Pune	IA -> RP	0.086*	0.086

***p < .01; **p < .05; *p < .10.

Source: Author's own contribution (IA: Investment Allocation, PB: Borrowing Pattern, SP: Spending Practice, RA: Retirement Adequacy, RP: Retirement Planning, RS: Retirement Satisfaction).

Table 6 represents the group-specific PLS-SEM results and their differences. A double bootstrap routine is used to determine the significance of the differences by running a PLS Multi-Group Analysis (Sarstedt et al., 2011). The descriptions of the two segments are derived based on assigning each of the observations to the maximum membership probability to one of the two groups. Thereafter, cross-table analysis regarding demographic and individual characteristics serves to identify applicable descriptors (Ringle et al, 2010).

The direct effect of spending practice on retirement planning is significant, and we have observed a higher significance in Bangalore when compared with Bhubaneshwar (0.253). At the same time, with regard to the direct effect of investment allocation on retirement planning, it is more significant in Bhubaneshwar as compared to Chennai (0.601), Bhubaneshwar with Delhi (0.426), Bhubaneshwar with Hyderabad (0.392), and Bhubaneshwar with Kolkata (0.358). Conversely, Spending Practice plays a significant role in the Chennai-Hyderabad segment. However, it is more significant regarding its direct effect on spending practice with Retirement Adequacy (0.316), followed by investment allocation with retirement planning (0.385). Spending practice also plays a vital role in the Chennai and Kolkata segments. It is highly significant for retirement adequacy (0.213) than for retirement planning (0.366). Regarding investment allocation on retirement planning (0.482), it is significant in the Chennai and Kolkata segments. In Chennai-Pune, the direct effect of spending practice on retirement adequacy (0.238) and spending practice on retirement planning (0.555) is very significant. In general, with regard to the direct effect of spending practice on retirement adequacy (0.472), it is significant in the Delhi-Kolkata segment. Similarly, the direct effect of investment allocation on retirement planning in Hyderabad-Kolkata, as well as Kolkata and Pune, is significant.

5. Conclusions and Discussion

This research contributes to the growing body of knowledge on essential financial behaviours for effective retirement planning, offering valuable insights for IT-ITES employees to achieve retirement adequacy and financial sufficiency. Notably, our study provides initial empirical evidence for distinct trajectories of financial behaviours. The exogenous latent variables identified three specific patterns of financial behaviours: investment allocation (0.918), borrowing pattern (0.892), and spending practice (0.874), which reflect financial habits acquired and reinforced through experience, feedback, and financial knowledge. These learned behaviours significantly contribute to retirement planning as a mediating mechanism, aiding in achieving retirement adequacy and retirement satisfaction. Consistent with Behavioural Learning Theory, the results demonstrate that repeated financial experiences and reinforced behaviours play a critical role in shaping retirement planning decisions and long-term retirement outcomes.

The information technology boom in India during the 1990s, along with the anticipated initial wave of retirees in the current decade, presents significant managerial implications for the country's IT-ITES sector. A primary reason for inadequate retirement planning is the absence of immediate and visible benefits from retirement planning, which often leads employees to prioritize short-term goals and career-related investments over long-term financial security. Research suggests that effective retirement planning is substantially influenced by financial behaviours, which must be considered in a comprehensive manner, encompassing saving discipline, investment diversification, risk tolerance, and long-term goal orientation. In the context of the IT-ITES workforce characterized by relatively high incomes, rapid career progression, and early exposure to global financial products, behavioural biases such as present bias, overconfidence, and reliance on employer-provided benefits can further undermine proactive retirement planning. From a managerial perspective, this necessitates the integration of structured financial education, behavioural nudges, and retirement-focused decision support systems within human resource policies.

The study highlights the pronounced influence of social pressures on employees' spending practices (0.928). Individuals often experience a strong compulsion to maintain their lifestyle and social standing due to familial expectations and peer influence, which can lead to persistent financial strain when aspirations surpass actual financial capacity. Such pressures frequently result in unplanned and potentially harmful borrowing, thereby intensifying long-term financial obligations and undermining financial security. We recommend that employers institutionalize regular workshops and training programs focused on savings, investments, and long-term financial planning to strengthen employees' financial literacy. Organizations should foster a supportive environment that actively promotes awareness of systematic saving opportunities and encourages preparedness for future financial uncertainties. Moreover, as retirement planning extends well beyond the period of active employment, organizations should initiate retirement education at the early stages of employees' careers, irrespective of age or experience.

There is an urgent need for financial institutions to strengthen consumer education regarding the breadth and suitability of financial products available in the marketplace. A notable gap persists in the availability of compelling and well-structured investment options that

adequately address individuals' long-term retirement needs. Survey respondents expressed a clear demand for more attractive, flexible, and transparent retirement-oriented products, along with improved guidance to help them navigate and evaluate existing market offerings. The findings underscore the importance of a coordinated effort among financial institutions, employers, and government agencies to design and implement policies that actively incentivize retirement savings and long-term investment, including pension schemes and insurance products. Such a collaborative approach is critical for fostering informed financial decision-making, increasing participation in retirement planning, and ultimately ensuring that the ageing population attains financial security and well-being in the post-retirement phase.

5.1. Limitations of research

While the research offers valuable insights into retirement satisfaction and adequacy, it is subject to certain limitations due to its focus on working professionals rather than retired individuals. Firstly, the study exhibits a high level of hypothetical bias, as individuals' future intentions and expectations may not accurately reflect their actual behaviour. Participants may either overestimate or underestimate their financial requirements for achieving adequacy and satisfaction. Secondly, the study does not account for the dynamic nature of economic conditions, health, family responsibilities, and job satisfaction, all of which are highly unpredictable and may significantly influence individuals' retirement decisions.

5.2. Scope for future research

The structural model was developed with consideration of data derived from the Indian population, specifically focusing on IT and ITES employees in metropolitan cities. Future research endeavors will incorporate global variables and expand upon a hierarchical model utilizing PLS-SEM. In a hierarchical component model, constructs are employed in two layers, typically involving the second order (Lohmoller, 1989). This approach enables the researcher to utilize both higher and lower-order constructs within the study. The research will commence with the lower-order constructs and subsequently build upon them with higher-order constructs. Furthermore, the lower-order constructs will be integrated into the measurement model, while the higher-order constructs will be employed in the structural model.

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Appendix

Survey Questionnaire

Dear Respondent,

The objective of this study is to examine the role of financial behaviour in retirement planning, analyse its impact on retirement adequacy, and evaluate its influence on retirement satisfaction. The data collected will be used solely for academic and research purposes and will be treated with strict confidentiality.

Thank You.

1. Personal Details	
1.1 Gender : <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other	1.2 Marital Status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Separated
1.3 Company Name :	
1.4 Company Location : <input type="checkbox"/> Bangalore <input type="checkbox"/> Bhubaneshwar <input type="checkbox"/> Chennai <input type="checkbox"/> Delhi <input type="checkbox"/> Hyderabad <input type="checkbox"/> Kolkata <input type="checkbox"/> Pune	
1.5 Sector : <input type="checkbox"/> IT <input type="checkbox"/> ITES	
1.6 Age Group : <input type="checkbox"/> 21-25 years <input type="checkbox"/> 26-35 years <input type="checkbox"/> 36-45 years <input type="checkbox"/> 46-55 years <input type="checkbox"/> 55-65 years	
1.7 Education: <input type="checkbox"/> Graduate <input type="checkbox"/> Post Graduate <input type="checkbox"/> Doctorate	
1.8 Number of Years in Service: <input type="checkbox"/> 0-5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> 11-15 years <input type="checkbox"/> 15-20 years <input type="checkbox"/> 21-25 years <input type="checkbox"/> 26-30 years <input type="checkbox"/> 31 years and above	
1.9 Spouse Employment Status <input type="checkbox"/> Employed <input type="checkbox"/> Self-employed <input type="checkbox"/> Un-employed	
1.10 Number of Dependents <input type="checkbox"/> None <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 or more	
1.11 Assets Owned <input type="checkbox"/> Land <input type="checkbox"/> Self-Occupied House <input type="checkbox"/> Additional House <input type="checkbox"/> Vehicle <input type="checkbox"/> Commercial Building <input type="checkbox"/> Jewellery <input type="checkbox"/> Financial Instruments <input type="checkbox"/> Others	
1.12 Liabilities <input type="checkbox"/> Educational Loan <input type="checkbox"/> Home Loan <input type="checkbox"/> Vehicle Loan <input type="checkbox"/> Personal Loan	
1.13 Income Details <input type="checkbox"/> Up to Rs.5 Lakh <input type="checkbox"/> Rs.5-10 Lakh <input type="checkbox"/> Rs.10-15 Lakh <input type="checkbox"/> Rs.15-20 Lakh <input type="checkbox"/> Rs.20 Lakh and above	
2. Savings Attitude	
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree	
2.1. Inadequate financial literacy is the reason for not saving for retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	
2.2. I never seem to have enough money to save for retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	
2.3. I am concerned about whether I have enough money saved for retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	
2.4. Insufficient retirement products is the reason for not saving for retirement. (products like New Pension Scheme (NPS), Employee's Provident Fund (EPF), Senior citizens saving scheme (SCSS) etc.,) 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	
2.5. Unattractive retirement products is the reason for not saving for retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input checked="" type="checkbox"/> Strongly Agree	
2.6. I have tried to figure out (have figured out) how much money is needed to be saved to live comfortably post-retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	
2.7. Medical expenses are the reason for inadequate savings for retirement. 1 2 3 4 5 <input type="checkbox"/> Strongly disagree <input type="checkbox"/> Disagree <input type="checkbox"/> Neutral <input type="checkbox"/> Agree <input type="checkbox"/> Strongly Agree	

2.6. Day to day expenses is the reason for not saving for retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
3. Borrowing Pattern					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					
3.1 Percentage of your monthly income used to repay loans/liabilities:					
<input type="checkbox"/> None	<input type="checkbox"/> Less than 10%	<input type="checkbox"/> 10-20%	<input type="checkbox"/> 21-30%		
<input type="checkbox"/> 31-40%	<input type="checkbox"/> 41-50%	<input type="checkbox"/> 50% and above			
3.2 Do you currently have any of the following types of Loans?					
<input type="checkbox"/> Housing Loan	<input type="checkbox"/> Vehicle Loan	<input type="checkbox"/> Education Loan			
<input type="checkbox"/> Personal Loan	<input type="checkbox"/> Credit Card Loan	<input type="checkbox"/> Loan from family and friend's	<input type="checkbox"/> Other		
Loan (please mention:.....)					
3.3 Have you availed loan for investment purposes?					
<input type="checkbox"/> Yes	<input type="checkbox"/> No				
If 'YES' have you invested in					
<input type="checkbox"/> Shares	<input type="checkbox"/> Debentures	<input type="checkbox"/> Government Bonds			
<input type="checkbox"/> Bank Deposits	<input type="checkbox"/> Retirement Schemes	<input type="checkbox"/> Others (please specify)			
3.4 Poor financial planning is the reason for increased borrowing. (from Banks, Non-Banking Financial Institutions, Family and Friendsetc..)					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
3.5 Inadequate income is the reason for increased borrowing.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
3.6 Lifestyle choice has increased the amount of borrowing.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
3.7 Loan repayment is the reason for poor retirement planning.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
4. Investment Decision					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					
4.1 Have you invested in any of the following?					
<input type="checkbox"/> Real estate	<input type="checkbox"/> Shares/Stock	<input type="checkbox"/> Bank Deposits	<input type="checkbox"/> Government Bonds		
<input type="checkbox"/> Commodities	<input type="checkbox"/> Retirement Funds	<input type="checkbox"/> Jewellery	<input type="checkbox"/> Mutual Funds		
<input type="checkbox"/> Others (please mention:.....)					
4.2 Have you currently invested in any of the following types of retirement products?					
<input type="checkbox"/> Employee Provident Fund (EPF)	<input type="checkbox"/> Voluntary Provident Fund (VPF)				
<input type="checkbox"/> Public Provident Fund (PPF)	<input type="checkbox"/> National Pension System (NPS)				
<input type="checkbox"/> Insurance Pension Plans	<input type="checkbox"/> Mutual Funds (designated pension plans)				
<input type="checkbox"/> Other retirement plans (please mention:.....)					
4.3 What percentage of your current salary do you contribute towards investment (excluding retirement plans)?					
<input type="checkbox"/> None	<input type="checkbox"/> Less than 10%	<input type="checkbox"/> 10-20%	<input type="checkbox"/> 21-30%		
<input type="checkbox"/> 31-40%	<input type="checkbox"/> 41-50%	<input type="checkbox"/> 50% and above			
4.4 What percentage of your current salary do you contribute to the retirement plan(s)?					
<input type="checkbox"/> None	<input type="checkbox"/> Less than 10%	<input type="checkbox"/> 10-20%	<input type="checkbox"/> 21-30%		
<input type="checkbox"/> 31-40%	<input type="checkbox"/> 41-50%	<input type="checkbox"/> 50% and above			
4.5 How often do you monitor your investments?					
<input type="checkbox"/> Daily	<input type="checkbox"/> Weekly	<input type="checkbox"/> Monthly	<input type="checkbox"/> Bi-Annually	<input type="checkbox"/> Occasionally	

4.6 In my opinion, below mentioned factors below influence investment decision making.

	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
Liquidity of investment (that can be easily sold)	<input type="checkbox"/>				
Expected returns	<input type="checkbox"/>				
Tax effect on profit	<input type="checkbox"/>				
Investment Risk (market risk, liquidity risk, credit risk etc.)	<input type="checkbox"/>				
Investment Expenses (broker fees, trading fees etc.)	<input type="checkbox"/>				
Market information	<input type="checkbox"/>				
Studying the market fundamentals	<input type="checkbox"/>				
Estimated returns during retirement	<input type="checkbox"/>				
Relying on the experiences of other investors' while making investment decisions	<input type="checkbox"/>				
Treat each element of the investment portfolio separately	<input type="checkbox"/>				
Carefully consider the movement of the product I intend to invest in.	<input type="checkbox"/>				
Check the health of my portfolio at regular intervals and make decisions from the already invested product.	<input type="checkbox"/>				

5. Insurance Allocation

Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree

5.1 Do you currently have any of the following types of Insurance?
 Life Insurance Medical Insurance Health Insurance
 Property Insurance Motor Insurance Other Insurance (please mention:.....)

5.2 Do you currently have any of the following types of health insurance?
 Individual Health Insurance Family Floater Health Insurance Group Health Insurance
 Senior Citizen Health Insurance Critical Illness Insurance
 Other Insurance (please mention:.....)

5.3 General health of family have changed in the last 3 years?
 1 2 3 4 5
 Strongly disagree Disagree Neutral Agree Strongly Agree

5.4 Poor health condition of family has forced to invest more into health care.
 1 2 3 4 5
 Strongly disagree Disagree Neutral Agree Strongly Agree

5.5 Health condition of my family has impacted my ability to invest in retirement.
 1 2 3 4 5
 Strongly disagree Disagree Neutral Agree Strongly Agree

6. Spending Behaviour

Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree

6.1 Percentage of **monthly income** utilised towards the day to day expenditure:
 None Less than 10% 10-20% 21-30%
 31-40% 41-50% 50% and above

6.2 Every once in a while I like to go on a big spending spree.
 1 2 3 4 5
 Strongly disagree Disagree Neutral Agree Strongly Agree

disagree					Agree
6.3 I never pay for something if I can get it on credit					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
6.4 Inadequate financial literacy is the reason for increased spending					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
6.5 Excess and frivolous spending has stalled my potential for retirement planning.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
7. Retirement Planning					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					
7.1 Retirement planning has facilitated the awareness of various issues related to retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
7.2 Retirement planning has helped to assess the available resources to establish strategies and develop them.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
7.3 I know how to determine how much money I need to live comfortably throughout my retirement years.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
7.4 I am doing a good job of preparing myself financially for retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8. Retirement Adequacy					
<i>(April 2006 AARP Bulletin Retirement Planning Survey)</i>					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					
8.1 Retirement planning helps to determine the quantum of resources needed for retirement adequacy.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8.2 I know how much money is necessary to live comfortably throughout retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8.3 Systematic contributions to designated retirement accounts is essential for a comfortable retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8.3 I have adequate financial support from my investments which was made for retirement					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8.4 I will have enough money to take care of medical expenses during retirement.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
8.5 I Have enough money to protect my family in case of an unforeseen emergency.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
9. Retirement Satisfaction					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					

9.1 Retirement planning significantly determines retirement satisfaction.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
9.2 I am totally satisfied with my retirement plans.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
9.3 I am totally satisfied with my retirement portfolio.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
9.4 I am totally satisfied with my retirement savings.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
10. Financial Literacy					
Evaluate the following aspects of your life, scoring from 1 to 5, according to the satisfaction in each item, being 1 = Strongly Disagree and 5 = Strongly Agree					
10.1 Inadequate Financial Literacy is the main reason for poor financial planning					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
10.2 Financial literacy is important for investing in the right kind of savings products.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
10.3 Financially literacy is important for allocating money into the right kind of insurance.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
10.4 Financially literacy is important in avoiding unnecessary spending behaviour.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	
10.5 Financially literacy is important in identifying the right retirement investment portfolio.					
1	2	3	4	5	
<input type="checkbox"/> Strongly disagree	<input type="checkbox"/> Disagree	<input type="checkbox"/> Neutral	<input type="checkbox"/> Agree	<input type="checkbox"/> Strongly Agree	

By participating in this study, you are agreeing to provide the most honest answers you can. Any responses provided will be anonymized, so that neither the research team nor additional respondents will know your responses.

By selecting "I agree", you are consenting to participate in the survey.

I agree

I disagree