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KEY FACTORS INFLUENCING SAVING AND INVESTMENT DECISIONS: A COMPREHENSIVE LITERATURE REVIEW

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Abstract:
In recent decades, there has been a profound shift in the fundamental structure of the Indian financial market, transitioning from a focus on saving to one centered on investment. These transformations have broadened the scope of participants' engagement and have influenced their risk-taking behavior. This study aims to address this shift by examining existing research on the factors influencing saving and investment behavior among Indian individuals. Utilizing the Web of Science database, we conducted a systematic review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework. Out of 3262 identified studies, 32 were included in our analysis. Our review reveals various economic and non-economic determinants shaping saving and investment behavior. Key findings underscore the pivotal role of individual decision-making, future financial security considerations (such as pension plans), and motivations for saving. Additionally, factors like portfolio selection and individual investment strategies emerged as significant influencers. However, it's important to note that our study is limited to a qualitative synthesis within the PRISMA framework. Future endeavors could employ more sophisticated meta-analysis techniques for a more comprehensive assessment of quantitative studies. To date, there has been a dearth of comprehensive reviews exploring the contextual nuances, determinants, and methodological approaches in this domain, making our review a unique and insightful contribution to the field.

Keywords: Economic factors, Non- economic factors, Saving and investment decisions, Systematic literature review, PRISMA framework.

1.Introduction:

Behavioral economics is crucial for understanding how people make saving and investing decisions. Traditional theories like "modern portfolio theory" and "efficient market theory" assume that investors are logical and rational, with their actions mirroring available economic information (Jiang, 2018). This rational expectation approach describes how people generally make decisions regarding housing, retirement, and financial matters in old age. Predicting the value of future assets is challenging due to inherent biases (Benítez-Silva et al., 2015), and family norms play a significant role in labor and retirement decisions, affecting care for grandchildren and disabled relatives. Planning for old age is often complicated by information overload, necessitating a focus on key areas. Strategic decisions can be interconnected, forming complementary relationships when an agent’s optimal choice aligns with

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others. The standard utility function for individual saving isn't always straightforward, with saving rates influenced by changes in aggregate saving. As beliefs evolve, they can trigger sudden shifts in saving rates, highlighting the strategic and interdependent nature of these decisions. Throughout one's working years, wealth is accumulated, and during retirement, it is decumulated for consumption (Horioka and Niimi, 2018). A structural model of life-cycle saving in the US incorporates variability in medical expenses, life spans, and estate motives (Nardi et al., 2010). Increased savings rates can result from expanding capital markets by diversifying private savings into bonds and stock investments, reducing reliance on commercial banking (Wongsurawat, 2011). Incentives like income tax benefits can drive retirement savings, while varying fees across funds reveal the level of competition in the industry and impact investor welfare (Walter and Sisli, 2007). In countries like the United States, studies examine sentiment-related market dynamics (Lee et al., 2002). Traditional finance theories like the random walk theory and the efficient market hypothesis (EMH) offer a framework but often overlook the impact of investor sentiment. Researchers suggest that improving 401(k) plan structures could increase participation, especially among low-knowledge investors (Morrin et al., 2012). Financial attitudes that prioritize current spending over long-term planning can limit individuals' financial resilience (Atkinson and Messy, 2012). The complexity of pricing financial products involves not just interest rates but also fees, commissions, and surcharges (Granda et al., 2019).

1.1 Importance of Investor Behavior in Financial Markets

Financial literacy programs help promote saving, but investment decisions hinge on factors like how much to save, which assets to invest in, and how to withdraw without depleting the asset pool too quickly (Waring and Seigel, 2015; Muralidhar, 2017). Though financial instruments can be risky, increased exposure to diversification and inflation protection has made them appealing. Research shows that people with higher financial literacy tend to make better-aligned investment decisions (Kezdi and Willis, 2011; Kuhnen and Miu, 2017). Experts highlight the importance of financial advice in navigating complex markets (Meyll et al., 2019).

Over recent decades, the Indian financial market has transitioned from a saving-oriented to an investment-oriented economy, prompting more diverse participation and changing investor risk-taking behavior (Haritha and Rishad, 2020). Individual employees now bear more responsibility for their investment decisions, requiring cognitive skills and willpower to optimize outcomes (Benartzi and Thaler, 2007). Despite traditional financial models viewing investors as rational wealth maximizers, real-world decisions often involve various economic and non-economic factors. This study aims to address gaps in our understanding of these influences on individual saving and investment behavior.

Given this context, the following research questions guide this systematic literature review:

1. What economic and non-economic factors affect saving and investment behavior?
2. Which theoretical perspectives have been used in previous studies, and how relevant are they today?

The paper is structured as follows: The second section describes the research methodology, including article selection criteria. Section 3 addresses the first research question, while Section 4 discusses theoretical perspectives related to the second research question. Subsequent sections cover future directions, limitations, and conclusions. This research aims to identify economic and non-economic factors that influence individual saving and investment decisions. Economic determinants include income level, real interest rate, liquidity preference, and economic conditions, while non-economic determinants involve psychological factors, financial literacy, portfolio choices, sociological factors, emotional factors, and demographic elements.

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2. Research Method

2.1 Identification

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework was used to perform this systematic review (Moher *et al.,* 2009). The aim of this study is to conduct a complete literature review in order to conduct empirical and qualitative studies on investors' behaviour. The researcher obtains data for this study by searching the Web of Science for papers published in the area of saving and investment behaviour using the keywords "saving" and "investment".

2.2 Screening

The time span for articles published over the years 2011–2023.

2.2.1 Exclusion criteria

Review articles, conference proceeding papers, and book chapters under Web of Science categories from the arts and humanities citation index (A&HSCI), book citation index-social science and humanities (BKCI-SSH), and emerging source citation index (ESCI) were excluded.

2.2.2 Inclusion criteria

Document type must be an open access article; Web of Science categories for the social science citation index (SSCI) should be economics, business finance, management, international relations, social sciences mathematical methods, agricultural economic policy, social sciences interdisciplinary, regional urban planning, and humanities multidisciplinary.

2.3 Quality and eligibility assessment

The title, author names, abstract, journal name, and year of publication were exported to Microsoft Excel spreadsheets of the identified records. Subsequently, the titles and abstracts of the records were reviewed, and papers not relevant to the topic were eliminated. The admissibility of the remaining papers was determined by carefully screening the full texts. Specifically, we included only peer-reviewed papers to ensure quality (thus improving the validity of these findings). Ultimately, the checklist contained 32 items. Finally, all papers included in this study were thoroughly examined to extract and code the data. The last research was done on January 26, 2024, with the Web of Science database. "WOS core collection obtained multidisciplinary information from highly impactful journals."

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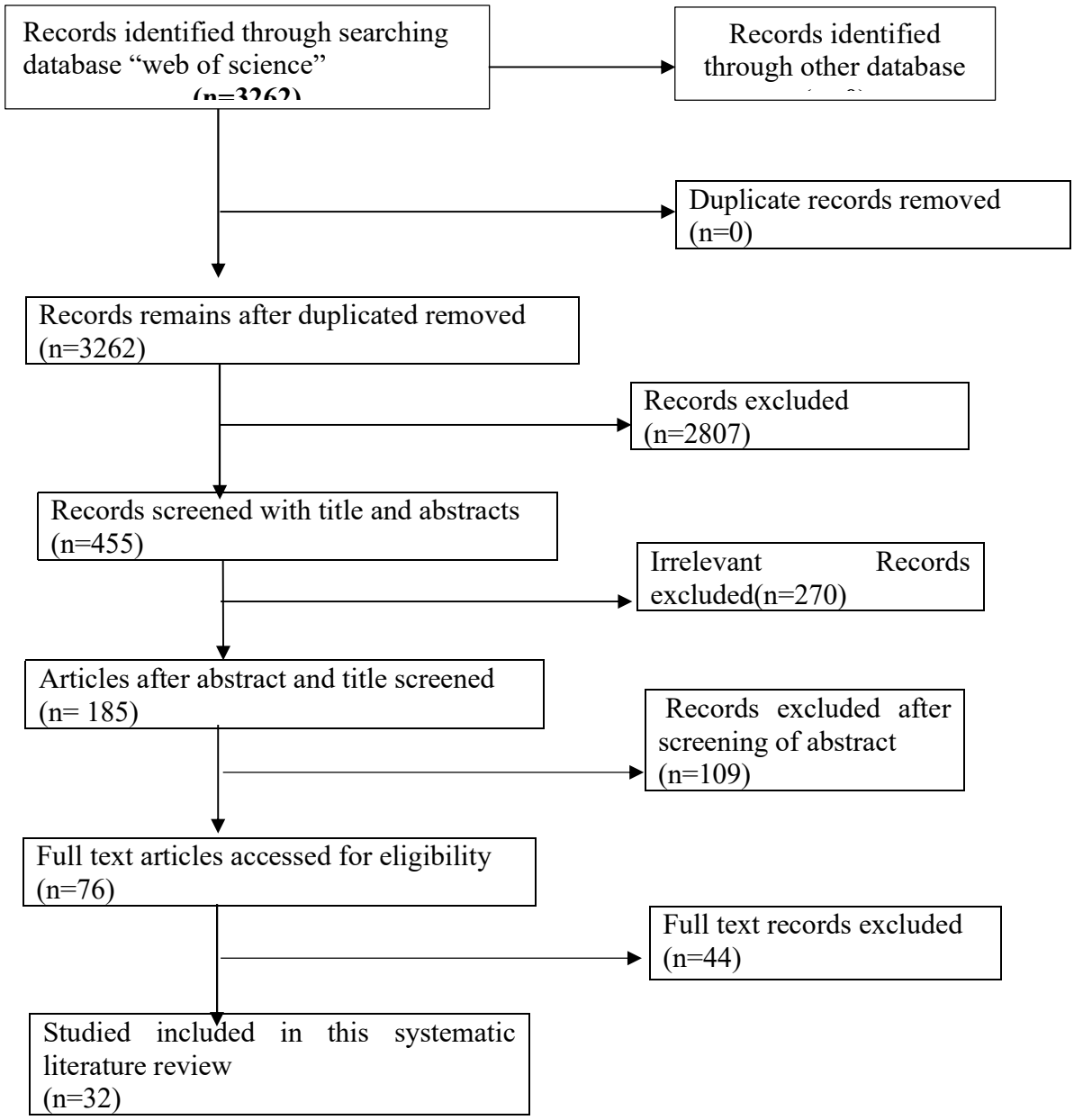
Figure.1



PRISMA framework

3. Results and Discussion

Economic and Non-economic Determinants of Saving and Investment

In this section, we delve into the primary determinants that influence individual saving and investment behavior. These determinants were identified from 32 reviewed studies. We discuss economic factors in section 3.1, non-economic factors in section 3.2, and the theoretical context in section 3.3. Here's an overview:

3.1 Economic Factors Influencing Saving and Investment Behavior

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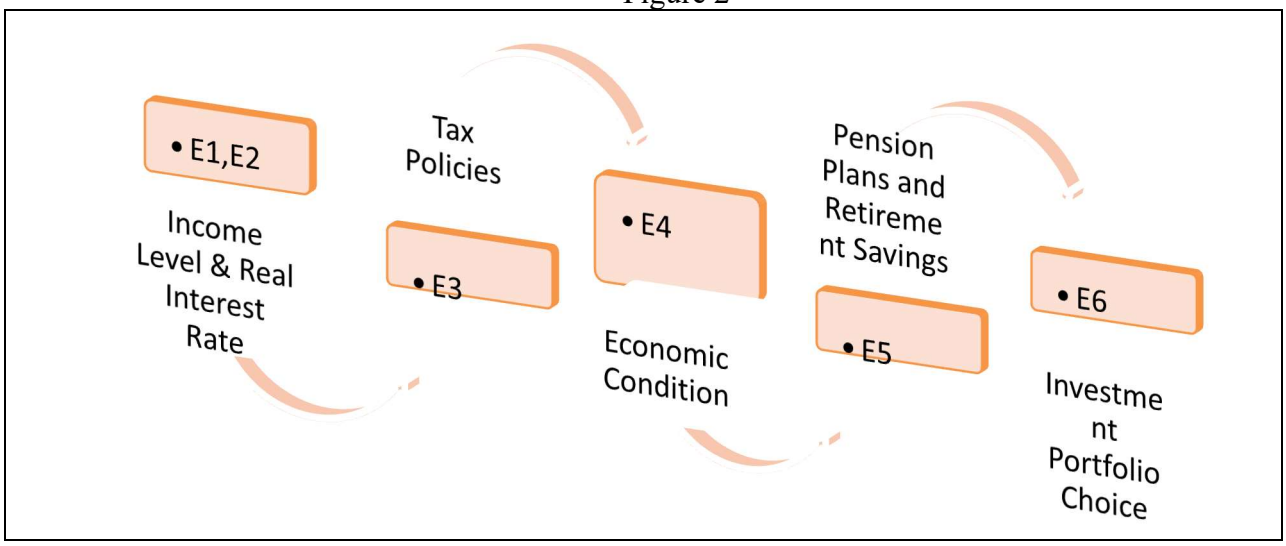
Economic factors can be broadly categorized into macroeconomic and microeconomic elements. We explore both categories here, with key determinants like real interest rates, income levels, economic conditions, tax policies, pension plans, and investment portfolio choices.

Figure 2



Authors framework

3.1.1 Income Level (E1)

Higher income levels lead to greater savings, with households adopting a precautionary saving motive due to income uncertainty (Mody et al., 2012). Economic factors also influence money management behavior, including saving, budgeting, and investing (Cull and Whitton, 2011). Individuals with higher financial literacy often manage money more effectively (Gonzalez et al., 2020), emphasizing responsible financial decision-making.

3.1.2 Real Interest Rate(E2)

Savings are impacted by real interest rates. As rates increase, so does the inclination to save, given the higher returns on future savings and consumption. According to Hall (2017), central bank monetary policies impact real interest rates, affecting the cost of present and future consumption. As real interest rates rise, investment tends to decline due to higher capital costs.

3.1.3 Tax Policies (E3)

Tax policies play a crucial role in household investment decisions. Changes in capital taxation reform and dividend taxes can affect investment patterns (Anagnostopoulos et al., 2012; McGrattan, 2012). Dividend tax increases can lead to households maintaining savings at lower capital returns due to labor income risks (Jiang, 2018).

3.1.4 Economic Conditions (E4)

Economic uncertainty is influenced by various factors like geopolitical events, changes in monetary policy, or economic disagreements among experts (Moore, 2016). This uncertainty can lead to reduced consumption and increased precautionary saving. During recessions, investment and income levels typically drop (Bloom, 2009; Liu, 2015).

3.1.5 Pension Plans and Retirement Savings (E5)

Pension plans are assessed by their policy funding ratio, measuring actuarial assets and liabilities. Pension funds use asset-liability management to ensure sustainable pensions. Retirement savings products are calculated based on workforce years and average wages (Munnell et al., 2008; Munnell et al., 2012). Zalewska (2022) found that group personal pensions offer better returns and more investment

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opportunities than individual pension plans.

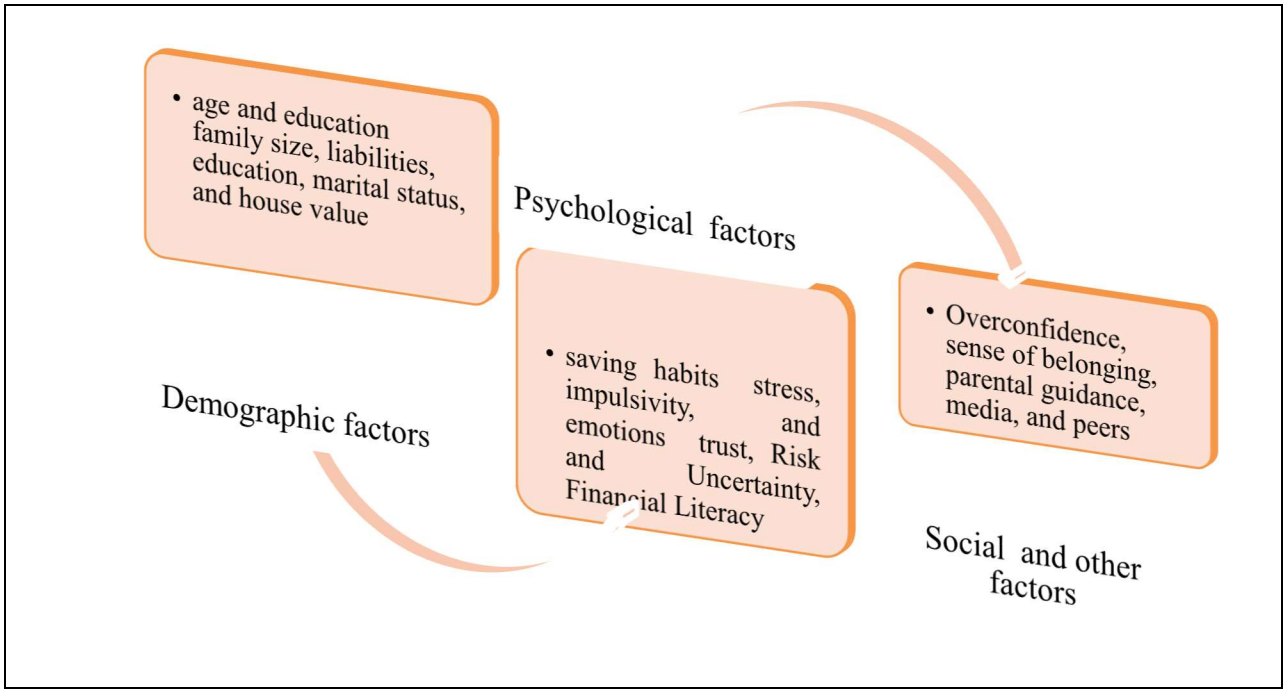
3.1.6 Investment Portfolio Choice (E6)

Investment portfolios aim to maximize expected utility while balancing risk and return (Neumuller and Rothschild, 2017). Portfolio theory requires considerations of volatilities, expected returns, and the association between assets. Campbell (2006) notes that household investment portfolios often underperform due to under-diversification.

3.2 Non-economic Factors

Investor behavior is also influenced by non-economic factors such as demographics, psychological, social and other factors.

Figure 3



Authors framework

3.2.1 Demographic Factors

Demographics, such as family size, liabilities, education, marital status, and house value, influence household saving and investment behavior (Rehman et al., 2010). Women are more likely to save than men, indicating possible gender-based financial advice (Hermansson, 2017). Financial literacy tends to increase with age and education, although results vary (Yeh, 2020; Ranyard et al., 2020).

3.2.2 Psychological Factors

Psychological factors such as stress, impulsivity, and emotions impact financial decisions (Bijleveld and Aarts, 2014; Lea and Webley, 2006). Stress and impulsive spending can affect money management (Norum, 2008). Employed individuals often continue their saving habits into retirement due to uncertainty (Nardi et al., 2016). Lack of trust can limit household participation in stock markets (Gianetti and Wang, 2016).

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3.2.2(a) Risk and Uncertainty

Risk and uncertainty affect investment decisions. Huber (2021) explores risk-neutral probabilities to assess subjective uncertainty. Feldstein and Liebman (2002) highlight the risks associated with social security programs, particularly in unfunded pay-as-you-go systems.

3.2.2(b) Financial Literacy

Financial literacy is linked to better retirement planning, stock investing, and financial behavior (Lusardi and Mitchell, 2007; 2011a; 2011b). Individuals with higher financial literacy tend to diversify their portfolios, while those lacking financial knowledge may face adverse financial outcomes (Kezdi and Willis, 2011; Kuhnen and Miu, 2017).

3.2.3 Social and Other Factors

Social influences, including parental guidance, media, and peers, play a role in financial behavior (Xiao et al., 2007). Urban birthplaces are associated with proximity bias, while rural backgrounds may result in less sophisticated investment portfolios (Lindblom et al., 2018). Cultural and psychological factors, such as overconfidence and a sense of belonging, can affect investor preferences (Bailey et al., 2008).

4. Theoretical framework

In the theoretical framework of Saving-Investment Behavior, another significant determinant is the decision-making process regarding saving and investment. This theoretical perspective delves into two primary aspects: the saving motive approaches, which include the liquidity theory of preference, and the investor behavior approaches, particularly focusing on the theory of planned behavior at the individual level, which are most pertinent to the study's objectives.

4.1 Saving

Keynesian liquidity, as defined by Hayes (2018), refers to the extent to which an asset's value in terms of consumable output remains unaffected by changes in long-term expectations. The concept of 'Liquidity' pertains to an asset's convertibility into cash, reflecting its marketability and shiftability. Existing literature distinguishes between 'market liquidity' and 'funding liquidity,' with the latter referring to the ability to refinance debts upon maturity (Brunnermeier and Pedersen, 2008), which is a subset of market liquidity. Drawing from Keynes's theory of liquidity preference, four motives are identified: transactions, finance, precautionary, and speculative. Among these, transactions, finance, and precautionary motives exhibit interest-inelastic behavior, whereas the speculative motive is interest-elastic, responding to changes in interest rates. The transaction motive encompasses liquidity needed for current exchanges, including anticipated demands related to income or production output. Finance motive pertains to initiating investment, akin to a transaction motive, as finance necessitates planned investment for production commencement. The precautionary motive involves holding money to meet unforeseen payments or opportunities for advantageous purchases, highlighting a preference for assets with stable values. The speculative motive reflects sensitivity to interest rates, as agents may forego interest income to hold assets offering price protection, driven by uncertainty regarding market liquidity (Culhan, 2020). Investigations into saving goals explore their dependence on variations in household portfolio composition, distinguishing between safe, risky, and relatively safe assets. Saving goals align with attributes such as self-control and propensity to plan (Changwony et al., 2021). Additionally, numerical ability positively correlates with allocating household savings to risky assets. Constraints on informal savings instruments contribute to lower aggregate household savings, while credit constraints lead to distortions at the firm level (Restuccia and Rogerson, 2008; Hsieh and Klenow, 2009).

4.2 Investment Decisions

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Individual motivations for saving in banks often revolve around wealth accumulation and securing financial stability in old age. Preferences for higher interest rates may vary among individuals, influencing their saving or investment behaviors. Factors such as self-control, involvement in financial institutions, and perceived control over retirement planning contribute to individual savings practices (Bongini and Cucinelli, 2019). Determining the amount to save and how to invest involves intricate decisions, with considerations extending beyond simple calculations such as bond purchases. Behavioral portfolio theory conceptualizes households' portfolios as hierarchical structures, with each layer representing distinct saving goals and corresponding risk attitudes (Shefrin and Statman, 2000). Investors exhibit preferences for user-friendly stocks, reflecting rational portfolio choices without contradictions (Lindblom et al., 2018). Financial attitudes, emphasizing present-oriented spending versus long-term planning, impact individuals' financial resilience and well-being (Atkinson and Messy, 2012). The interplay between attitude and self-control triggers individual saving motives, underscoring the relevance of theories such as planned behavior in understanding financial decision-making processes (Gonzalez et al., 2020). The theory of consumer socialization highlights the role of socialization agents, such as family and peers, in shaping individuals' financial knowledge, attitudes, and behaviors (Weley and Nyhus, 2006). Models assessing financial decision-making reveal varying levels of sophistication among individuals, with implications for wealth accumulation, investment choices, and portfolio diversification (Hilgert et al., 2003; Lusardi and Mitchel, 2011). Goals-Based Investing emphasizes personalized solutions tailored to individuals' unique financial objectives (Lusardi and Mitchel, 2011). Proximity bias in portfolio choices underscores the influence of factors like birthplace and locality on investors' decision-making processes (Lindblom et al., 2018).

5. Implications for the future research

Rachel and Smith (2018) acknowledge the significant role of monetary and financial sectors in the global economy and highlight that shifts in monetary trends can impact global real rates due to structural changes in liquidity. Matsuyama (2004) delves into the realm of willingness to save, suggesting that certain individuals might accept higher interest rates for credit creation. The persistence of low real interest rates carries substantial policy implications. Central banks, in the event of negative shocks, may need to raise interest rates above the zero-lower bound, leading to the adoption of unconventional policy tools such as quantitative easing (QE) (Rachel and Smith, 2018). To enhance financial literacy and promote investment awareness, financial institutions and policymakers should implement educational programs and counseling sessions for individuals (Bamforth et al., 2018). Campbell (2006) does not endeavor to model the correlation between wealth and stock market participation. Finance theory confronts the challenges posed by financial literacy programs by proposing innovative financial instruments where only the income from securities contributes to essential goals while being specifically indexed to inflation. Merton (2012) and Thaler (2013) emphasize the necessity for improving and innovating the financial system to make it more user-friendly. Asset-Liability Management (ALM) could analyze value shifts among taxpayers and participants in individual state funds to identify states in dire need of pension reform (Lekniute and Beetsma, 2016). However, the study is constrained by assuming that savings can take both formal and informal forms (Granda et al., 2019). Mata (2021) suggests that banks, real estate firms, private companies, and pension fund managers should seize retirement planning opportunities amid unmet demand. Ensuring sustainable public finances and maintaining individual quality of life are imperative. A comprehensive scale is valuable for predicting financial well-being indicators such as precautionary saving, debt, and monthly income. Ranyard et al. (2020) highlight the significance of the gender gap in financial behavior, although its significance diminishes on a deeper analysis after controlling for age and education. Analyzing the automatic investment of Personal Retirement Account (PRA) savings in annuities, Ahmed (2016) suggests that if

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workers are not obligated to purchase a variable annuity, many would prefer to manage their accounts themselves. Factors influencing household investment include expenditure, occupation, saving, and assets. Atkinson et al. (2006) observe that financial services impact financial literacy, with low financial literacy adversely affecting individual savings and leading to chronic mistakes in goal-oriented saving. Nevertheless, government and policymaker-led financial literacy programs can enhance saving outcomes (Muralidhar, 2017). McCormick (2009) notes the absence of evidence indicating that financial education programs translate into improved financial knowledge and behavior, stressing the need for personalized finance and investment education. Niimi and Horioka (2018) suggest that the financial burden of parental care may influence the wealth decumulation behavior of elderly individuals, particularly after retirement. Wongsurawat (2011) exclusively examines management fees and total expenses deducted from fund assets annually but could further investigate front-end and back-end loads of expenses individually. In reality, individuals often utilize financial instruments for purposes such as estates, housing improvements, livestock, or jewelry rather than relying solely on cash or deposits. Additionally, in developing countries, people frequently invest in informal savings instruments without concerns about risk or limited functionality. Lindblom et al. (2016) discover that individual investors exhibit local bias, which could affect stock prices, investor welfare, and return predictability. Insights from Prasad et al. (2020) can aid policymakers and financial institutions in devising strategies based on demographic factors such as age, gender, marital status, education, occupation, financial advisor, and annual income. Briggs et al. (2021) suggest that despite households being deterred from investing due to pessimistic beliefs, aligning past investments and future beliefs could enable individual investors to capitalize on return predictability and potential mispricing in local and distant markets.

6. Limitations of the study

Morrin et al. (2012) restricted their analysis of retirement plans to simulated decision-making scenarios, which means actual plan configurations were not validated. Future research should focus on assessing real-world investment plans to account for differences in risk and return. This study is a systematic review of the factors that influence saving and investment behavior, with a scope limited to various economic and non-economic determinants of individual savings and investments in papers published between 2011 and 2023. Consequently, our findings do not address other factors like religious, cultural, or behavioral influences. We also omitted some non-economic factors, such as psychological, social, emotional, cultural, and demographic aspects, that could impact saving and investment behaviors.

7. Conclusions

It was concluded that both economic and non-economic factors play a role in shaping people's saving and investment behaviors. Research studies such as those by Rachel and Smith (2018), Meyll et al. (2019), Kikuchi and Vanchadze (2017), Jiang (2018), Granda et al. (2019), and Prasad et al. (2020) indicate that saving and investment decisions are critical factors that drive individual financial habits. People typically consider plans for future financial security, as suggested by studies like Bovenberg and Nijman (2015), Debets et al. (2021), Lekniute and Beetsma (2016), Mata (2021), and Zalewska (2022), which found that employees save money for pension plans to ensure a safe and secure future. Other factors impacting individual saving and investment behaviors include money management, particularly spending and saving habits. Academic progress tends to improve these behaviors, but investment strategies and cost-saving plans often remain underdeveloped (Bamforth et al., 2018). It was concluded that students' financial behaviors, especially their spending and saving habits, improve with education, although their investment strategies are less advanced. Lekniute and Beetsma (2016) found the economic funding ratio to be a reliable indicator of financial health. Ranyard et al. (2020) applied item response theory to measure financial understanding, including concepts like interest, borrowing, inflation, saving, and investment. Shapiro and Wu (2010) showed that fatalism doesn't impact saving

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decisions for risk-seeking individuals but is positively linked to those who are risk-averse. Wongsurawat (2011) found that in Thailand, there is a slightly negative relationship between management fees and investment fund performance, indicating that equity investment funds with higher fees might yield lower returns. Ooijen et al. (2015) examined health-related spending in the Netherlands, suggesting that older households save more as healthcare costs are often insured, reducing the need for precautionary savings. Niimi and Horioka (2018) highlighted that bequest motives and precautionary savings are driving factors among retired elderly in Japan, leading to lower wealth decumulation rates than anticipated. Finally, Bonte and Filipiak (2011) provided weak evidence suggesting that social interaction and caste affiliation might influence investment behavior.

These insights can inform educational institutions, financial organizations, parents, and governments as they aim to promote positive financial behavior. Zalewska (2022) demonstrated that returns from IPP funds differ significantly from those from GPP funds, with IPP investors generally faring worse. Notably, the better performance of GPP funds isn't due to selection bias but aligns with market predictions from economic theory. Ahmed (2016) noted that while economic models often assume broader opportunity sets are beneficial, this holds true only when investors have the discipline and knowledge to create optimal portfolios. If investors don't diversify, stock market participation may not be a wise choice. Neumuller and Rothschild (2017) identified several key factors impacting less sophisticated investors, including inequality in returns, stock market participation rates, and wealth accumulation.

Declaration of Conflicting Interests

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