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Investigating the Determinants of Financial Well-Being:

Empirical Evidence from Students at The Higher National School of Management (ENSM)

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Abstract

Global efforts to improve financial well-being are rising, but financial well-being remains a developing concept, with models often from developed economies. This necessitates a multi-disciplinary approach, especially in developing contexts like Algeria. This study aims to investigate factors and the direct, mediated, and moderated pathways influencing financial well-being among **188** Higher National School of Management (ENSM) students.

A quantitative survey collects data on financial well-being, financial knowledge, stress, financial behavior, and demographics using various cross-culturally validated scales. The financial well-being of students, specifically measured using the CFPB scale to ensure comparability, averages **49.96**% out of **100%**, with scores ranging from **31** to **61** from **100**, indicating low to moderate levels of financial well-being. PLS-SEM analysis reveals financial behavior as the strongest positive financial well-being predictor and financial stress as the most significant negative determinant. Despite students having high financial knowledge (exceeding the OECD 2023 average), it negatively correlates with financial well-being, suggesting a "*knowledge-stress paradox*" where awareness heightens perceived financial vulnerability. Income and demographics show only indirect effects, mainly via financial stress and behavior. The study highlights a need for interventions focusing on financial literacy and skills to bolster positive behavior and mitigate stress, particularly for financially dependent students.

Keywords: financial well-being, financial knowledge, financial stress, financial behavior, measurements, income. student well-being.

Résumé

Les efforts mondiaux pour améliorer le bien-être financier progressent, mais celui-ci reste un concept en développement, avec des modèles souvent issus des économies développées, ce qui nécessite une approche multidisciplinaire, surtout en Algérie. Cette étude évalue les facteurs et les voies (directes, médiatisées, modérées) influençant le bien-être financier de **188** étudiants de l'École Nationale Supérieure de Management (ENSM). Une enquête quantitative a collecté des données (échelles validées) sur le bien-être financier, les connaissances, le stress, le comportement financiers et la démographie. Le bien-être financier des étudiants (mesuré par l'échelle CFPB pour comparabilité) est en moyenne de **49,96/100** (scores de **31** à **61**), indiquant un niveau faible à modéré. L'analyse PLS-SEM révèle le comportement financier comme principal prédicteur positif du bien-être financier, et le stress financier comme principal déterminant négatif. Malgré des connaissances financières élevées (supérieures à la moyenne OCDE 2023), une corrélation négative avec le bien-être financier suggère un « paradoxe de la connaissance ». Revenu et démographie n'ont que des effets indirects, via le stress et le comportement. L'étude souligne le besoin d'interventions en littératie et compétences financières pour améliorer le comportement et réduire le stress, surtout chez les étudiants dépendants.

Mots-clés : bien-être financier, connaissances financières, stress financier, comportement financier, mesures, revenu, bien-être étudiant.

ملخص

تتزايد الجهود العالمية لتعزيز الرفاهية المالية، ومع ذلك لا يزال هذا المفهوم في طور التطور، وغالبًا ما تستند النماذج المستخدمة إلى اقتصادات متقدمة. وهذا يستدعي اعتماد نهج متعدد التخصصات، لا سيما في السياقات النامية مثل الجزائر. تهدف هذه الدراسة إلى استكشاف العوامل والمسارات المباشرة وغير المباشرة والمعدّلة التي تؤثر على الرفاهية المالية لدى 188 طالبًا من المدرسة الوطنية العليا للمناجمنت .(ENSM) تم جمع البيانات من خلال استبيان كمي شمل الرفاهية المالية، والمعرفة المالية، والقلق المالي، والسلوك المالي، والخصائص الديموغرافية، باستخدام مقاييس تم التحقق من صلاحيتها عبر ثقافات متعددة. وقد تم قياس الرفاهية المالية للطلاب باستخدام مقياس مكتب الحماية المالية للمستهلكين (CFPB) لضمان إمكانية المقارنة، وبلغ متوسط الرفاهية المالية للطلاب 49.96٪ من أصل 100٪، مع تسجيل درجات تتراوح بين 31 و61 من 100، مما يشير إلى مستويات منخفضة إلى متوسطة من الرفاهية المالية. كشفت تحليلات نمذجة المعادلات الهيكلية (PLS-SEM) أن السلوك المالي هو أقوى عامل إيجابي يؤثر على الرفاهية المالية، في حين يُعد القلق المالي العامل السلبي الأبرز. وعلى الرغم من أن الطلاب يتمتعون بمستوى عالٍ من المعرفة المالية (يفوق متوسط منظمة التعاون الاقتصادي والتنمية لعام 2023)، إلا أن هذه المعرفة ترتبط سلبًا بالرفاهية المالية، مما يشير إلى "مفارقة المعرفة والقلق"، حيث تؤدي زيادة الوعي إلى تضخيم الشعور بالهشاشة المالية. أما الدخل والخصائص الديموغرافية فلا تظهر إلا تأثيرات غير مباشرة، غالبًا من خلال القلق والسلوك المالي. وتسلط الدراسة الضوء على الحاجة إلى تدخلات تركّز على التثقيف المالي وتنمية المهارات لتعزيز السلوك الإيجابي والحد من القلق، لا سيما لدى الطلاب المعتمدين ماليًا على الآخرين.

الكلمات المفتاحية :الرفاهية المالية، المعرفة المالية، القلق المالي، السلوك المالي، القياسات، الدخل، رفاهية الطالب.

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First and foremost, it is to God, in His goodness, that I offer my deepest gratitude I am also deeply indebted to my parents for their continuous support, persistent encouragement, and boundless patience. Their understanding, particularly during the more demanding phases of this journey, was a true gift. Their comforting presence and their unwavering belief in my abilities were a perpetual source of fortitude that saw me through this work.

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List of Abbreviations and Initialisms

ANOVA	Analysis of Variance
AFI	Alliance for Financial Inclusion
ASIC	Australian Securities and Investments Commission
AVE	Average Variance Extracted
CFPB	Consumer Financial protection Bureau
CFPB	consumer financial protection bureau
CPA	Confirmatory Principal Axis
CREAD	Research Centre for Applied Economics for Development
EFA	Exploratory Factor Analysis
EFA	exploratory factor analysis
EMP	Employment
ENSM	National Higher School of Management
ESEM	exploratory structural equation modeling
FB	Financial behavior
FD	Financial distress
FK	Financial knowledge
FS	Financial satisfaction
FS	Financial stress
FWB	Financial Well-Being
FWBS	financial well-being scale
GDP	Gross Domestic Product
IFDFW	Incharge financial distress/financial well-being scale
IL	Income Level
IS	Income source
ISTA	Income Stability
MaPS	Money and Pensions Service
NEFE	National Endowment for Financial Education
NR	Not reported
OCDE	The Organization for Economic Co-operation and Development.
OF	Objective factors
OFWB	Objective Financial Well-Being
ORFWBS	observed and reported financial wellbeing scales
PLS-SEM	Structural Equation Modeling using Partial Least Squares
PT	Personality traits
SD	Standard Deviation
SF	Subjective factors
SF	Socio-economic Factors
SFWB	Subjective financial wellbeing
Sig.	Statistical significance
SLR	Systematic Literature Review
Spec	Specialization
SPSS	Statistical Package for the social Sciences
SWB	Subjective Well-Being
UNEP	United Nations Environment Programme
α	Cronbach’s alpha

INTRODUCTION

1.1 Research background

"Traditional measures such as income or net worth, while important, do not fully capture this aspect of the concept of financial well-being" (CFPB, 2015, p. 25).

This concise statement from Consumer Financial Protection Bureau financial report effectively captures the essence of financial well-being, highlighting that the concept extends far beyond mere income and wealth. As the (OECD, 2017) emphasizes, financial well-being is multifaceted, with far-reaching implications for individuals and societies. Recognizing this, scholarly inquiry has moved beyond simply defining financial well-being to exploring the dynamic interplay of psychological, social, and economic factors that shape individuals' financial experiences and, in turn, their overall quality of life. Research suggests that financial well-being significantly impacts mental and physical health, influences personal and professional relationships, and plays a crucial role in life satisfaction (CFPB, 2017) Given these wide-ranging effects, financial well-being is increasingly recognized as a key determinant of both individual stability and broader societal prosperity (J. J. Xiao, 2023). More broadly, well-being encompasses multiple dimensions of life, including job security, housing conditions, healthcare access, education, environmental quality, and social cohesion (Dolan et al., 2008). Within this framework, financial well-being emerges as a critical sub-domain of subjective well-being, reflecting an individual's sense of financial security, autonomy, and ability to maintain a stable or desired standard of living (Chatterjee et al., 2019).

Historically, terms like financial wellness, economic well-being, income satisfaction, financial security, and financial health have often been used interchangeably with, or as synonyms for, financial well-being. (Porter & Garman, 1993;Ghazali et al., 2020; Hall & Runyan, 1968;). One of the first empirical works to analyze the relationship between happiness and income was developed by (Easterlin, 1974). He observed that, within different countries, people with higher income reported significantly higher levels of happiness than population with lower income. This historical evolution of financial well-being is marked by a significant turning point from Richard Easterlin's groundbreaking 1974 paper, "Does Economic Growth Improve the Human Lot? Some Empirical Evidence." Prior to this work, the conceptualization of financial well-being was often rudimentary, largely mirroring prevailing notions of economic progress. It was widely assumed that national economic growth would naturally translate into improved individual financial circumstances, leading to greater happiness and overall well-being. However, Easterlin's research presented a compelling paradox: while wealthier individuals within a nation were generally happier at a given time, and richer nations showed higher average happiness levels, sustained economic growth within a nation over time did not reliably produce a corresponding increase in average citizen happiness. This revelation challenged the long-held assumption that economic expansion was the primary driver of financial well-being. It forced a re-evaluation of the concept, prompting scholars and policymakers to consider factors beyond mere economic indicators, such as relative income, adaptation to changing circumstances, the influence of aspirations, and the critical importance of non-material elements like social connections and personal health.

The Easterlin Paradox thus serves as a pivotal moment in the historical narrative, signaling a transition from a simplistic, economically-driven understanding of financial well-being to a more complex, multi-dimensional perspective that acknowledges the interplay of various social, psychological, and economic forces (Easterlin, 1974a; Kahneman & Deaton, 2010). Since financial well-being was historically associated with objective measures such as income levels, debt rates, and savings rates, early economic models primarily focused on these quantitative indicators as proxies for economic prosperity (Campbell, 1976; Duesenberry, 1949). This perspective reflected a broader social emphasis on material success, where financial stability was often equated with wealth accumulation and economic growth (Katona, 1975). The traditional economic paradigm suggested that higher income levels automatically translated into improved financial welfare, reinforcing the belief that financial success could be quantified through monetary assets and consumption patterns (Friedman, 1962; Samuelson & Nordhaus, 2004). This viewpoint significantly influenced public policy programs and financial literacy initiatives throughout the twentieth century, shaping financial education and resource allocation based on the assumption that economic indicators alone could determine financial well-being (Bernstein, 2003; Lusardi, 2019). However, as social scientists and policymakers delved deeper into financial health, the definition of financial well-being evolved to encompass not only tangible resources but also subjective experiences and psychological factors (Brüggen et al., 2017b; J. J. Xiao, 2016). This shift marked a growing recognition that financial well-being is not solely determined by objective metrics, such as income and assets, but also by individuals' perceptions of financial security, stress levels, and overall satisfaction with their financial situation (Netemeyer et al., 2018; Shim, Xiao, et al., 2009).

The need to understand and promote financial well-being has become increasingly critical in today's rapidly changing economic landscape (Atkinson & Messy, 2012; Lusardi, 2019). As individuals and families navigate complex financial systems and confront unprecedented economic challenges including rising income inequality, inflation, and financial instability, financial well-being has emerged as a key factor influencing overall quality of life and socioeconomic mobility (Piketty, 2014; Stiglitz, 2012). Despite its significance, research on financial well-being faces several ongoing challenges, one of the primary obstacles is the lack of a universally accepted definition, particularly one that is adaptable to diverse cultural contexts and evolving economic conditions (Gudmunson & Danes, 2011).

Scholars differentiate between objective financial well-being (e.g., income, wealth, and financial stability) and subjective financial well-being, which captures individuals' perceptions of their financial situation, stress levels, and overall financial satisfaction (Brüggen et al., 2017); While objective measures provide tangible indicators, subjective perceptions often influence financial decision-making and behavioral outcomes more directly (J. J. Xiao, 2016).

While financial literacy is often considered a key driver of financial well-being (Lusardi & Mitchell, 2014; OECD, 2022), some scholars argue that excessive financial knowledge can lead to a **paradox of decision-making stress**. Xiao & O'Neill, (2016) highlight that greater awareness of risks and complex financial products may increase anxiety, especially when individuals are faced with difficult trade-offs. Similarly, Fernandes, Lynch and Netemyer (2014) suggest that the marginal benefit of financial education is often small and may even backfire if it overwhelms individuals cognitively. Sabri & Aw, (2019) also found that financial anxiety can moderate the relationship between knowledge and well-being, indicating that more knowledge is not always beneficial. Thus, the relationship may be non-linear and context-dependent, requiring consideration of emotional and psychological factors alongside cognitive competence.

Additionally, measuring financial well-being remains complex, requiring the integration of quantitative financial data with psychological and behavioral assessments (Netemeyer et al., 2018). Existing research has been constrained by methodological limitations such as small sample sizes, a narrow focus on specific populations, and inconsistencies in measurement tools, underdeveloped theoretical frameworks, and limited exploration of informal financial systems (Brüggen et al., 2017; CAF - Development Bank of Latin America, 2023; Consultative Group to Assist the Poor (CGAP), 2024; Fan & Henager, 2021; Lacombe & Khatun, 2022; TIAA Institute, 2024).

Understanding financial well-being requires a comprehensive framework that not only identifies its key determinants but also determines ways to measure it in the right way. Despite its importance, the literature on financial well-being remains fragmented and underdeveloped, with several critical research gaps that hinder effective policy-making and intervention strategies (Atkinson & Messy, 2012; Lusardi, 2019; J. J. Xiao & O'Neill, 2016).

Financial well-being is an important topic; however, research on it remains scarce and scattered across disciplines. One of the most significant gaps in financial well-being (FWB) research is the lack of consensus on definitions and measurement approaches. Objective measures, such as income levels, savings, and debt ratios, provide tangible indicators but fail to capture the psychological and behavioral aspects that influence financial decision-making (Bashir & Qureshi, 2023; Brüggen et al., 2017; Fan & Henager, 2021; J. J. Xiao & O'Neill, 2016).

Conversely, subjective measures—such as perceived financial security and satisfaction—offer insights into individuals' emotional responses to their financial situations but lack standardization across diverse socio-economic contexts. This inconsistency complicates cross-contextual comparisons and limits the applicability of findings in emerging markets like Algeria (Anandhi & Velmurugan, 2025; CFPB, 2015; Gudmunson & Danes, 2011; G. Kaur & Singh, 2024; Kempson & Poppe, 2018; Lacombe & Khatun, 2022).

Challenges in measuring financial well-being stem from the methodological limitations in existing tools. Scales such as the Consumer Financial Protection Bureau (CFPB) Financial Well-Being Scale have gained prominence for their simplicity and focus on subjective perceptions. However, their cross-cultural validity remains underexplored, particularly in emerging economies where informal financial systems dominate (CFPB, 2015). Multidimensional scales like the Multidimensional Subjective Financial Well-Being Scale (MSFWBS) attempt to integrate components such as money management and future planning but face challenges related to psychometric validation and practical implementation in diverse populations. (CFPB, 2017; Demirgüç-Kunt et al., 2018; Sorgente & Lanz, 2019; World Bank, 2023). Furthermore, most studies assess Financial well-being at a single point in time without accounting for temporal variations due to life events or macroeconomic changes)(Fu, 2020; Netemeyer et al., 2018; TIAA Institute, 2024). A major limitation is the prevalence of small sample sizes in empirical studies, which reduces the ability to generalize results across diverse populations (Adams et al., 2012; Huston, 2010; S. Joo, 2008; J. Kaur et al., 2021; Panisch et al., 2019).

A significant gap is the narrow focus on specific populations, which leaves many groups underrepresented in FWB research. Mahendru, (2021) highlighted that much of the existing research disproportionately focuses on developed nations such as the USA, Canada, and Germany, neglecting underdeveloped countries where informal financial systems dominate. Kim et al., (2018) pointed out the lack of studies addressing rural populations or marginalized communities, which face unique financial challenges. Castro-González et al., (2020) identified a similar gap in their study on indebtedness, noting that low-income groups are often excluded from analyses despite being disproportionately affected by financial stress. Chen et al., (2020) studied financial security but identified gaps in understanding how cultural differences shape perceptions of security. Singh & Malik, (2022) further noted that women and young adults remain underrepresented in financial well-being (FWB) studies despite experiencing distinct financial vulnerabilities.

Inconsistencies in measurement tools also pose a major challenge to advancing financial well-being FWB research, making cross-study comparisons difficult and limiting the applicability of findings. The Consumer Financial Protection Bureau's (CFPB) Financial Well-Being Scale has been widely used but is criticized for its limited applicability outside Western contexts (CFPB, 2015). Netemeyer et al., (2018) proposed a perceived financial well-being scale but identified gaps in capturing temporal variations and life-stage-specific factors. Sorgente & Lanz, (2019) introduced a multidimensional subjective financial well-being scale but reported challenges in psychometric validation across diverse socio-economic environments. Prawitz et al., (2006) Financial Wellness Scale has been influential but relies heavily on subjective self-assessments, which may not align with objective indicators such as income or savings levels (Surendran & Saad, 2022). Kaur et al., (2021) noted that inconsistencies among these tools make cross-study comparisons difficult and reduce their utility for policymakers.

Another gap lies in understanding how informal financial support networks—common in emerging economies—affect financial well-being outcomes. In Algeria and other MENA countries, reliance on community-based financial systems is widespread due to limited access to formal credit mechanisms (African Development Bank, 2022; Atamanov et al., 2020; J. Kaur et al., 2021; TIAA Institute, 2024). These informal systems shape unique financial behaviors that are not adequately captured by traditional financial well-being scales or frameworks (Emara & Mohieldin, 2020; Riitsalu et al., 2024).

The lack of longitudinal data further limits understanding of how financial well-being evolves over time due to life events or macroeconomic changes. Netemeyer et al., (2018) emphasized the need for longitudinal designs to understand how financial stress evolves over time and interacts with broader economic conditions. Similarly, Chen et al., (2020) assessed present and future financial security but noted limitations in capturing dynamic changes caused by inflation or unemployment spikes. Bashir & Qureshi, (2023) highlighted that most studies rely on cross-sectional data, which fails to account for temporal variations or causality.

Finally, limited cross-cultural validity of existing financial well-being measures restricts their applicability in non-Western contexts, especially in emerging economies where informal financial systems and cultural factors significantly influence financial well-being (African Development Bank, 2022; CFPB, 2015; Mahendru, 2021; Singh & Malik, 2022; World Bank, 2023). Theoretical approaches to financial well-being also remain limited and fragmented. While some studies employ behavioral theories such as the Theory of Planned Behavior or Self-Determination Theory to explain financial decision-making processes (Mathew et al., 2024; Singh & Malik, 2022; Sorgente & Lanz, 2019), others focus narrowly on economic frameworks without integrating psychological or sociological perspectives. This lack of interdisciplinary approaches restricts the scope of FWB research and its applicability across diverse populations (Anandhi & Velmurugan, 2025; Bashir & Qureshi, 2023; L. She et al., 2022).

Financial well-being in Algeria is under increasing pressure due to high inflation, limited financial inclusion, and low digital financial adoption. In 2023, inflation reached 9.7%, mainly driven by food prices, while only 42% of adults had access to formal financial services in 2021 and just 15% used mobile banking (Coface, 2024; OECD, 2024; World Bank, 2021, 2023). These challenges are more pronounced among women and Generation Z students, who face additional financial access barriers (Dahmani et al., 2024; United Nations Economic Commission for Africa, 2023). Algeria's financial system remains concentrated in traditional banking, with less than 5% of lending targeting sustainability, limiting inclusive investment opportunities—especially in a hydrocarbon-dependent economy vulnerable to global shocks (Carnegie Endowment for International Peace, 2016; Centre for Economic Policy Research (CEPR), 2024; World Bank, 2023). In light of these constraints, accurately measuring and enhancing financial well-being has become a critical research and policy goal across diverse populations (Brüggen et al., 2017; Fan & Henager, 2021; Lacombe & Khatun, 2022; OECD & Global Partnership for Financial Inclusion, 2024; TIAA Institute, 2024).

1.2 Research objectives

This study aims to explore the determinants and measurement of financial well-being through a focused systematic literature review. It mainly seeks to empirically test some of the most widely validated financial well-being measurement tools within the context of Algerian higher education students, specifically those enrolled at the Higher National School of Management. The specific objectives of the study are:

- ✓ To conduct a bibliometric analysis of existing literature related to Financial Well-Being, providing an overview of the field's development and key research areas
- ✓ To identify key determinants and measurements of Financial Well-Being (FWB), through a systematic literature review.
- ✓ To examine different methods and scales used to measure Financial Well-Being.
- ✓ To contextualize these findings within the Algerian setting, emphasizing local relevance.
- ✓ To propose potential areas for further research agendas to improve the assessment and understanding of financial well-being.

1.3 Problem statement

While research on Financial Well-Being is growing rapidly across various academic disciplines including; economics, psychology, sociology, marketing, and consumer finance it has made significant contributions to the literature, largely due to these multidisciplinary efforts (Atkinson & Messy, 2012; Lusardi, 2019; Netemeyer et al., 2018; Ngamaba et al., 2020).

Nevertheless, the scope of financial well-being remains fragmented and geographically limited, primarily to Western countries such as North America, Europe, and Australia. This has resulted in limited knowledge of its antecedents and outcomes, a lack of robust measurement scales, and restricted generalizability of financial well-being concepts (Kempson et al., 2017; Netemeyer et al., 2018; Demirgüç-Kunt et al., 2018; Sorgente & Lanz, 2019; Emara & Mohieldin, 2020; Maherni, 2020; Fu, 2020; Chen et al., 2020; Fan & Henager, 2021; Lacombe & Khatun, 2022; Bashir & Qureshi, 2023; Riitsalu et al., 2024; Anandhi & Velmurugan, 2025).

Therefore, there is a need for more nuanced analyses of the determinants of financial well-being and a critical evaluation of whether current measurement scales adequately capture the complexity of this construct. Netemeyer et al., (2018) highlight the potential for cultural biases in existing scales, while Brüggen et al., (2017) point to the lack of consensus on a unified definition of financial well-being, leading to inconsistent measurement approaches. Addressing these gaps is essential for developing effective policies and interventions that promote genuine financial well-being. (Castro-González et al., 2020; J. Kim et al., 2018; Mahendru, 2021; OECD, 2024; Prawitz et al., 2006; Rakhrour & Daham, 2021; L. She et al., 2022; Singh & Malik, 2022; Surendran & Saad, 2022; World Bank, 2023).

Consequently, this research seeks to address the following fundamental questions:

RQ1: What are the key determinants of Financial Well-Being?

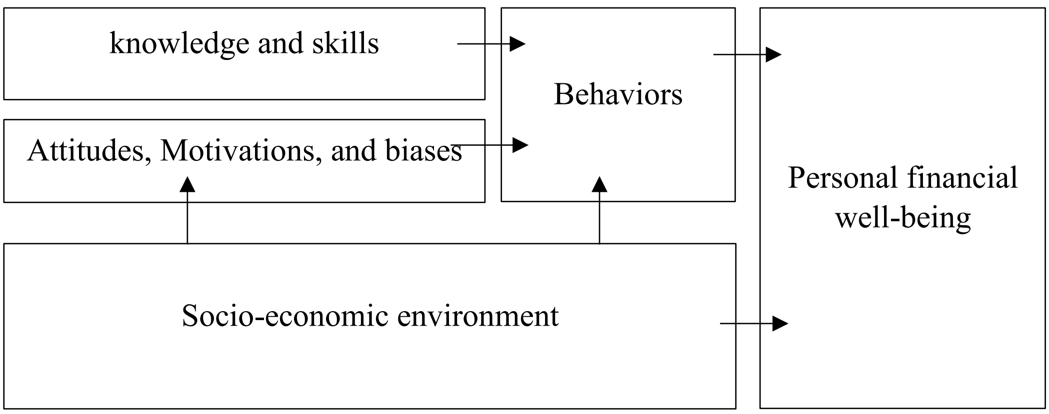
The objective is to identify and categorize the key determinants specifically influencing financial well-being in student's context.

RQ2: How can financial well-being be measured?

The objective is to identify and analyze the various methods and scales commonly used to measure financial well-being in academic research, with a focus on their underlying assumptions and limitations and testing their validity in different context.

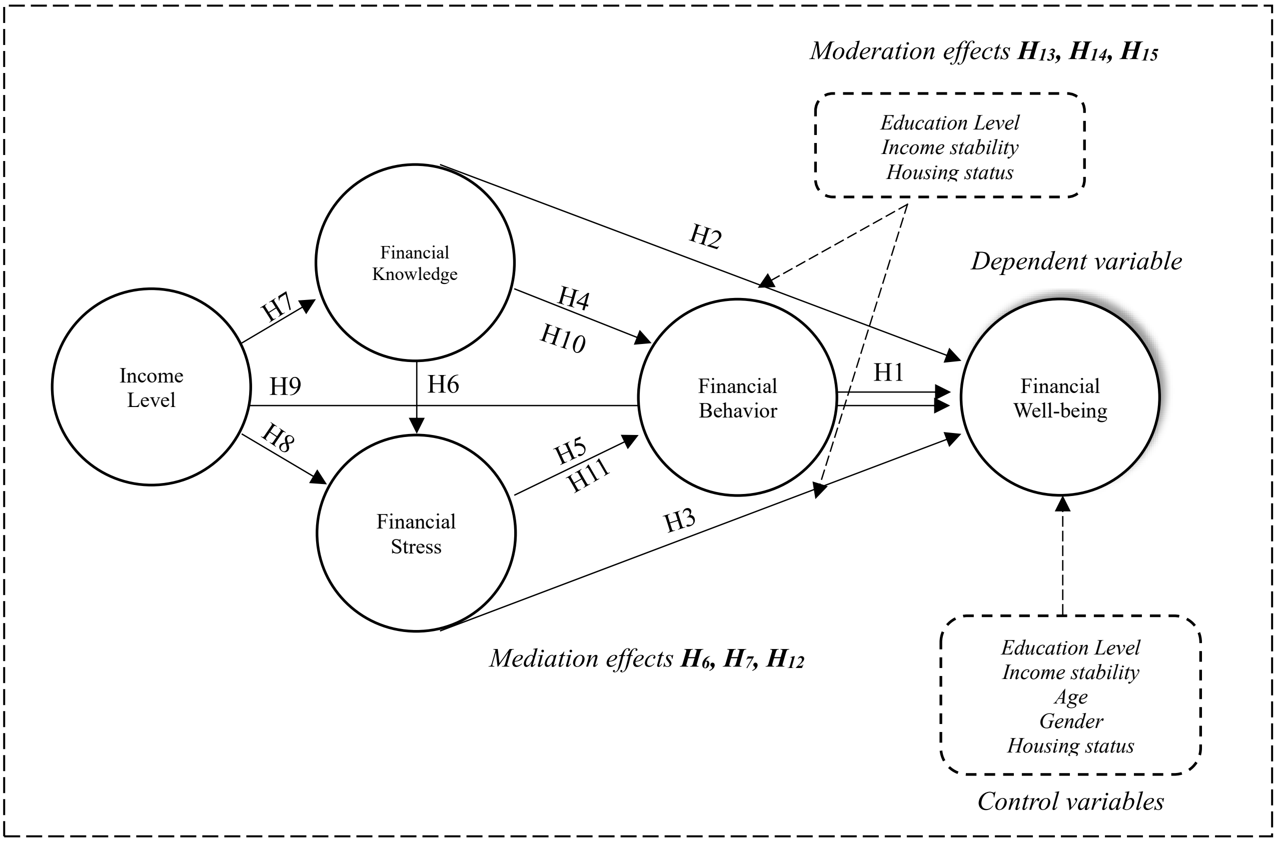
1.4 Hypotheses

Fig 1. The determinants of financial well-being.



Source: Self depiction, adapted from Kempson et al's., (2016) financial wellbeing conceptual model.

Fig.2 The research model adapted for SEM approach.



Socio-Economic Environment

Source: Authors' compilation, adapted from (Kempson et al., 2016) conceptual model.

To address the research questions, the following hypotheses are proposed. These are grounded in prior studies that highlight the relationships among financial knowledge, behavior, socioeconomic factors, psychological attitudes, and financial well-being: (Drentea & Lavrakas, 2000 ; Hilgert et al., 2003; Perry & Morris, 2005; Shim, Xiao, et al., 2009; Agnew et al., 2013; Sweet et al., 2013; Norvilitis & Mendes-Da-Silva, 2013; Fernandes et al., 2014; Lusardi & Mitchell, 2014; Kempson et al., 2016; Xiao & Porto, 2017; CFPB, 2017; Saurabh & Nandan, 2018; Netemeyer et al., 2018; Ingale & Paluri, 2020; Mahendru, 2021; Mahendru et al., 2022; Dulcio, 2023).

Direct effect hypotheses

H_1: Financial behavior has a positive effect on financial well-being.
H_2: Financial knowledge has a positive effect on financial well-being.
H_3: Financial stress has a negative effect on financial well-being.

H_4: Financial knowledge has a positive effect on financial behavior.
H_5: Financial stress has a negative effect on financial behavior.
H_6: Financial knowledge has a negative effect on financial stress.

H_7: Income level has a positive effect on financial knowledge.
H_8: Income level has a negative effect on with financial stress.
H_9: Income level has a positive effect with financial well-being.

Mediation effect hypotheses

H_{10}: Financial behavior mediates the relationship between financial Knowledge and financial well-being.
H_{11}: Financial behavior mediates the relationship between financial stress and financial well-being.
H_{12}: Financial knowledge, financial stress, and financial behavior mediate the relationship between income level and financial well-being.

Moderation effect hypotheses

H_{13}: Education Level has a significant moderating effect on financial well-being.
H_{14}: Income stability has a significant moderating effect on financial well-being.
H_{15}: Housing status has a significant moderating effect on financial well-being.

1.5 Research method

To address the research problem and test the research hypotheses, this study employed a quantitative research design (Creswell & Creswell, 2018). A questionnaire, adapted following established principles for scale modification (DeVellis, 2016) from the standard scale developed by the Consumer Financial Protection Bureau (CFPB, 2015), was used to collect numerical statistical data. This survey instrument was administered following best practices for survey implementation (Dillman et al., 2014) to an aimed for sample of 376 students, considered emerging adults or students from The Higher National School of Management in Algeria. The primary aim of this quantitative phase was to analyze factors influencing Financial Well-Being and understand its measurement within this specific group of Algerian students. A total of 188 complete responses were collected via the questionnaire. These collected data were subsequently processed and statistically analyzed using the SPSS software, version 27 and Smart PLS to measure the direct moderation, mediation effect, applying appropriate statistical technique: structural equation modelling.(Field, 2018; Hair et al., 2022; Kline, 2016).

1.6 Research settings

In order to carry out the study, we collaborated with the specialist following organization;

1. CREAD (Research Centre for Applied Economics for Development)

The host organization is CREAD (Research Centre for Applied Economics for Development). Its missions are defined in the decree of creation (Executive Decree No. 03-455 of December 1, 2003, amending and supplementing Decree No. 85-307 of December 17, 1985, establishing the research center for applied economics for development), (Decree No. 85-307, J.O. December 17, 1985). It is a public institution under the supervision of the Ministry of Higher Education and Scientific Research (MESRS) since 2003, with a scientific and technological character (EPST) (Director of Research at CREAD, 2021).

It plays a significant role in assisting decision-making, as it is consulted by various governmental and private institutions. It conducts frequent surveys of the population as well as economic institutions and professionals, in order to collect economic and socio-economic statistical data. It also works in collaboration on research projects with socio-economists and national and international scientific institutions: all ministries, companies (national and multinational), in order to develop expertise in the economic field to serve the country (Director of Research at CREAD, 2021).

The areas covered by CREAD are: economics, macroeconomics, socio-economics applied to development, industrial economics, international relations, agricultural economics and rural development, education, unemployment and employment, poverty, health, human development, etc. (Director of Research at CREAD, 2021).

1.7 Research plan

This research employs a multi-faceted, linear structure to investigate the determinants and measurements of financial well-being, encompassing the following phases:

Introduction
The Introduction provides a concise research background, outlining the context and relevance of financial well-being. It emphasizes the importance of its dimensions and identifies existing research gaps in determinants and measurement of financial well-being. The study's aims, objectives, and research questions are presented. Furthermore, the formulated hypotheses are introduced, and the research model is developed based on the literature, with its main axes and concepts discussed. Finally, the methods applied to test these hypotheses and a brief presentation of the research setting are outlined.

Chapter I: Theoretical and Conceptual Framework

This chapter establishes a comprehensive theoretical and conceptual framework, organized into three sections:

- **Section 01: State of art.** This section provides a systematic review using bibliometric analysis through the conceptual foundation and historical evolution by mapping and defining the Financial Well-Being landscape. It presents a bibliometric analysis of existing literature to identify key authors, influential publications, dominant research themes, and research gaps within the field of financial well-being, highlighting the importance of financial well-being.
- **Section 02: Financial Well-Being and it's determinants.** This section presents a more in-depth systematic literature review through manual insightful review. Building upon key determinants identified through bibliometric analysis current information is synthesized, and the PRISMA approach is used.
- **Section 03: Instruments and Dimensions of financial well-being.** This section examines the measurement of financial well-being that were shown to be the most adequate in the systematic review to provide a review and analysis of the instrument used to measure financial well-being, focusing on commonly used scales and their psychometric properties. Furthermore, it delves into the use of proxy indicators for financial well-being based on the literature.

Chapter II: Methodology

This chapter details the methodological framework, including data sources, sample, and measurement variables. Data is collected through a questionnaire. Data is analyzed using SPSS (v.27) and Smart PLS professional license through the Structural Equation Modeling method.

Chapter III: Results and Discussion

This chapter presents the results of the empirical study and validity test of cross-cultural scales in a first time Algerian context, then discusses these results in relation to those of the literature review.

Conclusion

The Conclusion summarizes the study's key findings and socioeconomic contributions of this research, discusses limitations and recommendations, and also suggests avenues for future research while reiterating the importance of understanding and promoting financial well-being.

CHAPTER I: CONCEPTUAL AND THEORETICAL FRAMEWORK

This chapter explores financial well-being by mapping its conceptual foundations, reviewing its main determinants, and examining the tools used to measure it, thereby establishing the basis for the upcoming empirical study.

Section 01: State of art

1. A Systematic Review using bibliometric analysis

Financial well-being research has accelerated substantially in recent years, reflecting its critical role in individual quality of life and policy agendas (Comerton-Forde et al., 2022; UNCDF, 2021; UNSGSA, 2021). This chapter aims to systematically review and map the research landscape on financial well-being and to trace it's evolution through a bibliometric analysis and bibliographic mapping. (Gonçalves, 2021 ; J. Kaur et al., 2021 ; Nanda & Banerjee, 2021; Wilmarth, 2021).

Through combining a systematic literature review with bibliometric analysis, this chapter provides a comprehensive overview that identifies research trends, influential studies, and thematic clusters (Donthu, 2021; Marzi, 2025; Mukherjee, 2022). The chapter is organized to first present bibliometric results (Gonçalves, 2021; Malque, 2024), It then discusses the conceptualization of financial well-being, followed by two thematic analyses focusing on its determinants and measurement approaches (CFPB, 2017; Netemeyer et al., 2018; Norvilitis et al., 2006; Prawitz et al., 2006). Finally, the chapter concludes with a summary of research gaps that will guide the empirical study in subsequent chapters.

1.1 Review Methodology

To comprehensively investigate financial well-being financial well-being, this dissertation employs both a systematic literature review (SLR) and a bibliometric analysis, carefully chosen for their distinct yet complementary strengths. The systematic collection and evaluation of evidence using SLRs follows a rigorous, transparent, and replicable method, minimizing bias by adhering to scientific strategies (Moher et al., 2009; Tranfield et al., 2003). The idea behind a systematic review is to systematically collect available evidence and then offer an evaluation of the evidence against predetermined criteria, rather than offering a narrative review of only some studies that are deemed as suitable by the researcher. This approach systematically synthesizes available evidence, which is particularly important in determining outcomes (Mulrow, 1994). In the management sciences, where randomized controlled trials are often not available, a systematic literature review of other published studies is the next 'best' form of evidence and requires the assembly, critical appraisal, and synthesis of all relevant studies that address a specific and narrow question (Akobeng, 2005).

In contrast, a bibliometric analysis maps research trends, identifies key contributors, and assesses publishing patterns using quantitative techniques. A bibliometric Analysis is a rigorous method using quantitative techniques to analyze bibliographic data (e.g., publications, citations, keywords) to understand the structure, evolution, and trends of a research field. It helps unpack evolutionary nuances, identify emerging areas, and map knowledge domains (Donthu, 2021). It also traces the evolution of research in financial well-being studies by evaluating publishing trends over time, identifying the most prominent authors, institutions, and countries, and emphasizing the most commonly utilized keywords. The bibliometric analysis methodology includes five main phases: (1) Study Design, (2) Data Collection, (3) Data Analysis (4) Data Visualization, and (5) Interpretation (Aria & Cuccurullo, 2017; Campra et al., 2021; Secinaro et al., 2020, 2021; Zupic & Čater, 2015).

R, a capable statistical programming language, along with the Bibliometrix package, facilitates this process through data analysis and visualization, offering an easy-to-use interface built on Shiny (Aria & Cuccurullo, 2017; R Core Team, 2019). To further strengthen the results, VOS viewer is utilized for co-occurrence, co-citation and key words analysis. VOS viewer is a software tool designed to construct and visualize bibliometric networks, such as those involving journals, researchers, or individual publications. These networks can be based on citation relationships, bibliographic coupling, co-citation, or co-authorship relations (van Eck & Waltman, 2010).

A mixed-methods approach is employed, integrating quantitative and qualitative techniques to ensure comprehensive analysis. Bibliometric analysis is used to map research trends and identify key contributors, while a PRISMA-guided systematic review synthesizes evidence on the determinants and measurement of financial well-being. This combination provides both a broad overview and a rigorous, in-depth understanding of the literature. (Moher et al., 2009).

In conclusion, a bibliometric analysis serves as the starting point, conducted to explore a broad overview and identify emerging trends (Donthu et al., 2021). Additionally, the (SLR) is useful for providing a rigorous and in-depth synthesis of existing knowledge on a specific set of determinants of financial well-being identified by the bibliometric analysis. That is to say, a systematic literature review is conducted to delve deeper into specific areas identified by the bibliometric analysis (Akobeng, 2005; Mulrow, 1994; Tranfield et al., 2003).

Fig 3. Review methodological approach.

Research question (Narrow) (1)	Data Collection (WOS) (2)	Search strategy (3)	Screening (4)	Data analysis (5)
Data visualization (6)	Interpretation (7)	Bibliometric analysis (8)	Manual insightful review (9)	Research agendas (10)

Source: Author’s compilation (2025).

1.1.1 *Data identification & collection*

To build upon existing reviews (Kumar Singh & Sharma, 2021; Mahendru, 2000, 2021; Mahendru et al., 2022; Sharma, 2019) and to address the predefined research questions, this study uses the Web of Science (WoS) database to collect relevant literature on financial well-being from 2000 to 2025. While using the same database and Boolean search terms as Mahendru's 2022 review, this dissertation differs in its research questions, inclusion/exclusion criteria and years covered and also research objectives. WoS is the most comprehensive and widely utilized database for scientometric analyses, and it contains quality-controlled literature data (e.g., title, author, abstract, keywords, references, and citations) (Cañas-Guerrero et al., 2013; Lv et al., 2021).

Compared to Dimensions and Scopus, Web of Science has the most selective journal coverage, with almost all the journals indexed in WoS are covered by Scopus and Dimensions (Kumar Singh & Sharma, 2021). Web of Science is widely recognized for its comprehensive coverage of high-quality, peer-reviewed journals across multiple disciplines, ensuring reliable and authoritative data for bibliometric analysis (Falagas et al., 2008; Mongeon & Paul-Hus, 2016). Its extensive citation indexing and standardized data format facilitate accurate tracking of research impact and thematic trends over time (Donthu et al., 2021; Marzi et al., 2025). Moreover, WoS's rigorous journal selection process and historical depth make it an ideal source for systematic literature reviews in interdisciplinary fields like financial well-being (Gonçalves, 2021; Mukherjee, 2022).

1.1.2 *Search strategy (inclusion and exclusion criteria)*[1]

The data extraction commenced in April 2025 with a thorough criteria search for records, using the Web of Science Core database in the title, abstract, or in the keywords. The search for relevant literature was conducted using the following Boolean operator and search term: *TI=((((well-being) OR ((well) AND (being)) OR (wellbeing)) AND (financial)))*, which turned up (n=765) scholarly works. Thereafter, limiting our scope to articles published in the English language from the domains of *"Economics" or "Business" or "Business*

[1] Inclusion& exclusion criteria: Inclusion criteria define which studies to include based on relevance and quality; exclusion criteria remove those that don't fit, ensuring a focused and unbiased review (Higgins et al., 2019).

Finance" or "Management" and "Psychology Social" or "Education & Educational Research" or "Economic Theory" resulted in (n=349) scholarly works.

Strict inclusion and exclusion criteria were applied; a Citation Topics Meso search was carried out with the use of the keywords "*Economics," "Gender & Sexuality Studies," "Social Psychology," "Education & Educational Research," or "Economic Theory" and "Management,"* which narrowed the results to (n=294) scholarly works.

The search results were further filtered by selecting the document types *"Article" or "Proceeding Paper" or "Review Article" or "Early Access*", published between "*2000 and 2025*", This date range was selected to capture both foundational and recent research on financial well-being, reflecting key developments in theory and measurement over the last two decades (Lusardi & Mitchell, 2014a; Netemeyer et al., 2018). This period balances comprehensiveness with feasibility, as recommended in systematic review guidelines (Moher et al., 2009). It ensures inclusion of relevant, up-to-date studies while excluding outdated work less applicable to current contexts (Petticrew & Roberts, 2006). Thus, resulting in the final corpus of 282 articles. These (n=282) articles serve as the foundation for this bibliometric study.

1.1.3 Inclusion Criteria

which are the characteristics that studies must possess to be included in the review. This includes:

1. Language: The focus solely on English-language studies stems from English's role as the international language of science and the rising number of publications in this language. (Research Trends, 2008).

2. Study design (e.g., randomized controlled trials, cohort studies, surveys). Including diverse empirical study designs such as randomized controlled trials and observational studies allows for a comprehensive understanding of financial well-being from multiple methodological perspectives (Falagas et al., 2008).

3. Population (age range: adults or emerging adults, specific demographics: individuals, families, couples). Focusing on adults and emerging adults' targets populations most relevant to financial well-being research, as financial behaviors and perceptions vary across life stages (Barrafrem et al., 2020; Sorgente & Lanz, 2019).

4. Intervention/Exposure (e.g., financial literacy programs, debt counseling). Including studies on interventions like financial literacy programs captures evidence on factors that potentially improve financial well-being, aligning with frameworks that emphasize financial capability and behavior (CFPB, 2017).

5. Outcomes (e.g., financial satisfaction, debt levels, savings behavior). Outcomes related to financial well-being, such as financial satisfaction and savings behavior, reflect both subjective and objective dimensions of financial health, consistent with integrated conceptualizations of financial well-being (Brüggen et al., 2017; Consumer Financial Protection Bureau, 2017).
6. Publication date range (2000-2025). Limiting to recent literature ensures relevance to current financial contexts and captures developments in measurement and theory over the last two decades (Gonçalves et al., 2021).

7. Publication type: The study must be published in a peer-reviewed academic journal and reports. Peer review serves as a quality filter, ensuring the inclusion of scientifically rigorous and credible studies (Falagas et al., 2008).

8. Relevance: Focus on Financial Well-Being. Studies must explicitly define or measure financial well-being or closely related constructs, as this focus ensures conceptual alignment and comparability across studies (Brüggen et al., 2017a; Consumer Financial Protection Bureau, 2017; Netemeyer et al., 2018; Sorgente & Lanz, 2019).

9. Relevance to Research Questions:
    - For RQ1, empirical or theoretical investigations of determinants or correlates of financial well-being provide insight into factors influencing financial well-being (Ponchio et al., 2019).
    - For RQ2, studies on measurement scales and psychometric validation contribute to understanding how financial well-being is operationalized and assessed (CFPB, 2017; Sorgente & Lanz, 2019).

1.1.4 Exclusion Criteria

The characteristics that will disqualify studies from being included. This might include:

1. Irrelevance to Financial Well-Being: Studies that do not focus centrally on financial well-being or mention it only peripherally are excluded to maintain conceptual clarity and ensure the review addresses the specific construct of interest. Including irrelevant studies can dilute findings and reduce the applicability of conclusions (Netemeyer et al., 2018).

2. Focus on Non-Individual Financial Outcomes: Research primarily addressing corporate financial performance, national economic indicators, or organizational finance is excluded because these contexts differ fundamentally from individual or household financial well-being, which is the focus of this review. This distinction is crucial to avoid conflating macroeconomic or organizational factors with personal financial experiences (Barrafrem et al., 2020).

3. Publication Date Outside Range (2000–2025): Limiting studies to those published between 2000 and 2025 ensures that the review reflects contemporary financial environments, policies, and measurement approaches. Older studies may use outdated frameworks or data less relevant to current contexts (Gonçalves et al., 2021).

4. Poor Methodological Quality: Excluding studies with small sample sizes, unclear inclusion criteria, or weak research designs helps maintain the scientific rigor and validity of the review findings. Methodologically weak studies can introduce bias and reduce confidence in synthesized results (Bashir & Qureshi, 2023; Brüggen et al., 2017b; Mahendru, 2021; Singh & Malik, 2022).
5. Lack of Full-Text Accessibility: Studies without accessible full texts are excluded because a comprehensive evaluation of methodology, results, and quality is not possible, which is essential for transparent and reproducible systematic reviews (Tranfield et al., 2003).

6. Non-English Language Publications: Restricting to English-language studies ensures consistency in data extraction and interpretation. Language restrictions are common in systematic reviews to avoid misinterpretation and to manage resource constraints, although this may introduce some publication bias (Tranfield et al., 2003).

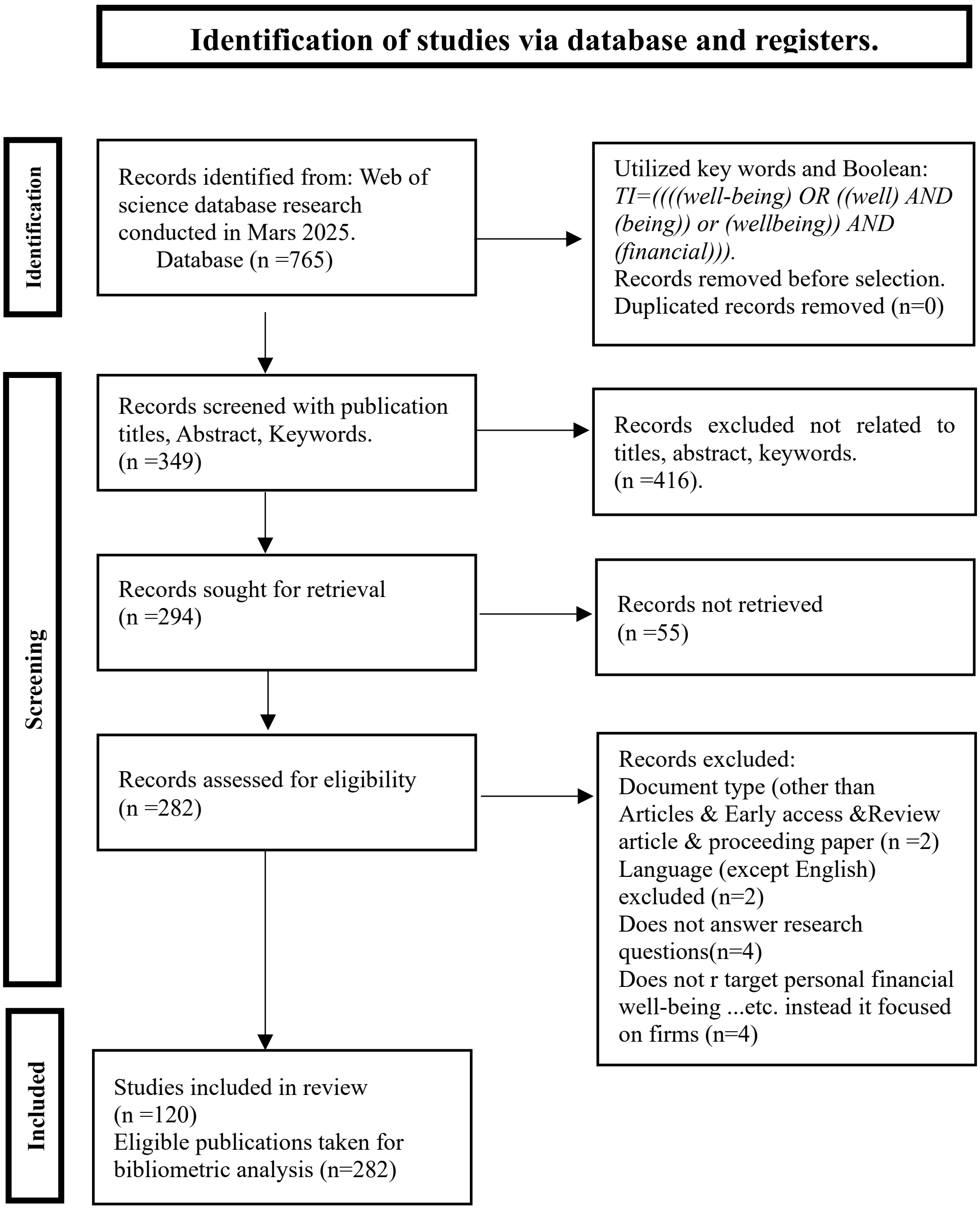
7. Non-Peer-Reviewed Materials: Editorials, opinion pieces, commentaries, book reviews, and non-peer-reviewed conference abstracts are excluded because they lack rigorous scientific validation, which is necessary to ensure the credibility and reliability of the evidence base (Denyer & Tranfield, 2009).

8. Duplicate Publications: Duplicate studies are removed to prevent double-counting data, which could bias the results and overrepresent certain findings within the synthesis (Tranfield et al., 2003).

1.1.5 Screening & selection

The following study conducted a systematic review technique, conforming to its requirements specified in PRISMA[2] statement (Page et al., 2021). Systematic reviews, frequently employing the PRISMA flow diagram to guarantee methodological rigor, have gained prominence in areas like financial literacy and financial inclusion to synthesize existing evidence and discern key trends (J. M. Collins & Urban, 2020; Grohmann et al., 2018; Kempson & Poppe, 2018).

Fig 4. Flow Diagram of selection process (based on PRISMA guidelines).



Source: Author's compilation (2025).

[2] PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) ensures transparent reporting of how studies are identified, screened, and selected, improving clarity and reproducibility (Page et al., 2021).

All records from a single database were imported into Zotero for4organization; no duplicates were identified. Titles and abstracts were independently screened by two reviewers using Rayyan to efficiently exclude irrelevant studies (Ouzzani et al., 2016). Full texts were then assessed for eligibility, with disagreements resolved by consensus. Exclusion reasons were documented for transparency. Included studies were exported as a BibTeX file for bibliometric analysis with Bibliometrix and as full records with cited references for network visualization using VOSviewer (Aria & Cuccurullo, 2017).

1.1.6 Data extraction

For each included study, the specific study design type was identified by reviewing the methods or design section of the paper. The design was categorized as a cross-sectional survey, quantitative correlational study, path analysis, structural equation modeling, or other specified types. When multiple design elements were used, all relevant approaches were recorded. If the study design was not clearly stated, this was noted as "design not clearly specified," along with any contextual details found in the text.

The sampling method was determined by examining the participant selection procedures described in the methods section. Sampling approaches were categorized as convenience sampling, snowball sampling, judgmental sampling, random sampling, stratified sampling, or other specified methods. If multiple sampling methods were combined, all were listed. In cases where the sampling method was unclear, it was noted as "sampling method not clearly specified."

Key participant demographics were extracted, including total sample size, age range or mean age, gender distribution, geographic location or context, and key defining characteristics such as whether participants were students, working adults, or from a specific nationality. Any missing or incomplete demographic information was documented, using percentages or exact numbers where possible.

The financial well-being measurement approach was identified by noting the specific measurement scale or tool used, the dimensions or components of financial well-being assessed, and any validated instruments employed. The scoring method, such as Likert scale or numerical scoring, was also recorded. When multiple measurement approaches were used, all were listed. If the measurement approach was only partially described, this was explicitly noted.

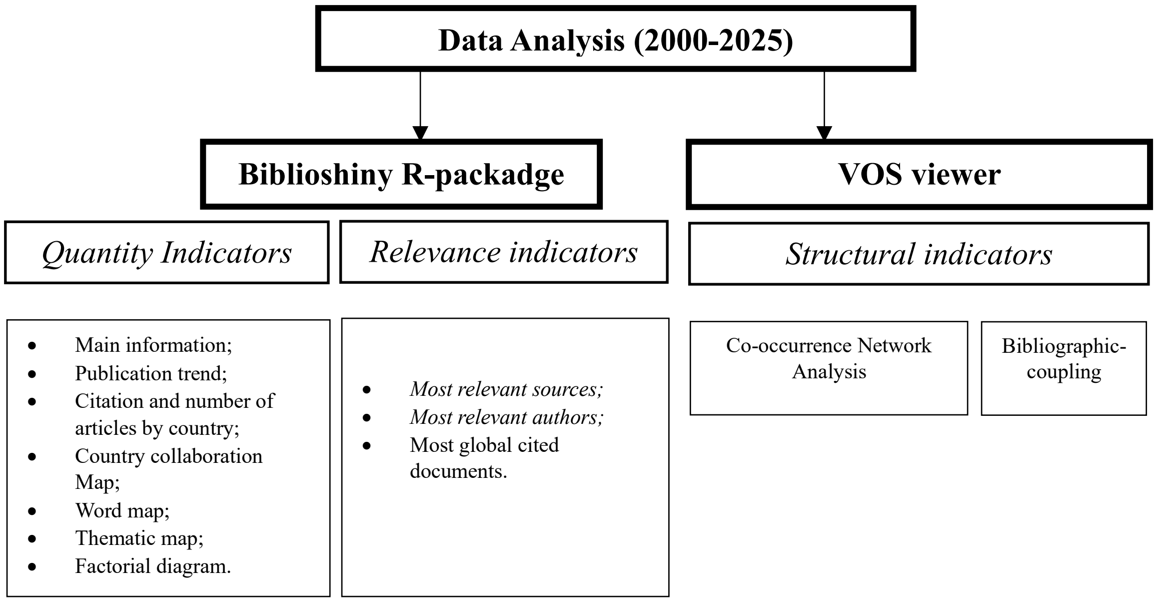
All key determinants of financial well-being reported in each study were listed, including psychological traits, financial behaviors, demographic factors, and any other identified predictors. For each determinant, how it was measured and its hypothesized or demonstrated relationship to financial well-being—whether positive, negative, or neutral—was recorded. When available, the statistical significance level of these relationships was also noted.

Finally, the primary research findings related to financial well-being were extracted. This included key statistical relationships discovered, significant predictors of financial well-being, and the strength and direction of these relationships. Any unexpected or notable results were highlighted. Specific statistical details such as regression coefficients and p-values were included when available. For complex findings, the most important conclusions were summarized to capture the essence of the study's contributions.

1.1.7 Analysis Method

To conduct the analysis, we utilized the Bibliometrix R-package (Biblioshiny) application for descriptive analysis (Aria & Cuccurullo, 2017) and the VOSviewer software for network visualization, specifically focusing on keyword analysis and bibliographic coupling (van Eck & Waltman, 2010). In the bibliometric section, we explored key metrics such as the summary of main information, publication trends, most relevant authors, sources, affiliations, document collaborations, and country-level collaboration analysis (Donthu et al., 2021). VOSviewer was employed to cluster networks through keyword analysis and bibliographic coupling. Using bibliographic coupling, we performed a content analysis to identify themes and propose future research directions related to financial well-being (Zupic & Čater, 2015) Figure 4 illustrates the data base analysis criteria.

Fig 5. Dataset search and analysis criteria.



Source: Author’s compilation (2025).

2. Conceptual foundation of financial well-being

The existing literature employs various terms to describe financial well-being, including economic well-being, financial well-being, psychological well-being, perceived financial well-being, financial socialization, financial wellness, family satisfaction, and life stage well-being, Additionally, some studies have focused specifically on financial stress during and following the COVID-19 pandemic. Scholarly interest in financial well-being has notably increased, particularly after the 2008 financial crisis and, more recently, the COVID-19 crisis. The most frequently cited study in the field, Zyphur et al., (2015), highlights the influence of 'unshared environmental factors' on financial well-being, while Cwynar et al., (2019) examines the role of parental facilitation in shaping financial well-being. Sabri & MacDonald, (2012) investigate how financial socialization and perceived financial well-being contribute to the financial well-being of college students. Furthermore, Jackson & Fransman, (2018) find that experiences of work-life balance are significantly associated with women's financial well-being. It is noteworthy that the majority of scholarly works address financial well-being without explicitly theorizing the concept. Based on the available literature on conceptualizing financial well-being, this study distinguishes between narrow and broad perspectives. The narrow perspective involves limited discussion of the antecedents, drivers, outcomes, and measures of financial well-being, which are comprehensively encompassed within the broader perspective (see Table 1).

2.1 Narrow Conceptualization

The financial well-being represents an individual's capacity to sustain themself, accomplish ends and save for other obligations. The structure of financial institutions through financial literacy and financial integration forms the financial well-being of individuals (Fu, 2020). The attitude of young people towards money predicts their financial well-being. Utkarsh et al., (2020) Financial well-being is a stage where people will spend and have some money left, manage their budgets and feel financially secure in the present and future Salignac et al., (2020). The amount of credit cards in fluences financial well-being, while the degree of f inancial knowledge and self-efficacy mediates this interaction (Limbu & Sato, 2019). Financial parenting and perceived financial expectations mediated through future financial coping behavior impact youngsters' subjective well-being (Serido et al., 2010). Financial well-being is the willingness of a person to fulfil his/her current financial responsibilities, needs of the present and future financial security) and his/her disposition for financial independence today and tomorrow (financial freedom) (Mahendru, 2020).

2.2 Broad Conceptualization

This broad, multidimensional, and integrative approach suggests that financial well-being is best understood through a combination of economic, behavioral, psychological, and social factors. Rather than focusing solely on income or financial status, this perspective incorporates how individuals perceive and manage their financial lives within personal and contextual frameworks.

For example, financial well-being is considered a feature of co-production, influenced by competence (objective and subjective financial literacy) and relatedness (attachment style) (Mende & van Doorn, 2015). Environmental cues, such as the presence or absence of credit cards, also shape financial behaviors, depending on individuals' payment sensitivity and debt-related associations (Wong & Lynn, 2020). Furthermore, financial stress, financial knowledge, behavior, and locus of control have been found to significantly impact subjective financial well-being at the household level (Mahdzan et al., 2019).

Family dynamics further complicate the picture, with economic strain affecting children's well-being through the mediating effects of family structure and complexity (Heintz-Martin & Langmeyer, 2020). Foundational work by Porter & Garman (1992) introduced objective, subjective, and reference point measures as key metrics in evaluating financial well-being—tools that remain central to current understanding.

Expanding on this, Mahendru, (2020) proposed a multidimensional framework emphasizing the ability to meet commitments, experience security, exercise freedom of choice, and enjoy quality of life improvements. They stress the importance of combining subjective perceptions with objective indicators, particularly in the context of underdeveloped economies. From a behavioral standpoint, Kempson et al., (2017) identified active saving, spending restraint, and debt avoidance, along with a strong locus of control, as key drivers of financial well-being. Similarly, Brüggen et al., (2017) and Netemeyer et al., (2018) define financial well-being as the perceived ability to sustain one's current or desired standard of living while maintaining financial freedom, linking present financial stability with future security.

Altogether, this broad, multidimensional, and integrative approach provides a richer, more nuanced understanding of financial well-being. It captures the diverse range of influences—structural, behavioral, emotional, and contextual—that shape financial experiences and outcomes, offering valuable insights for researchers, policymakers, and financial practitioners alike.

Table 1. Conceptualization of Financial well –Being.

Conceptualization Type	Definition / Focus	Key Authors / Sources	Explanation
Narrow Conceptualization	Attitudes toward money predict financial well-being	Utkarsh et al., 2020	Highlights the role of personal attitudes, particularly among young people.
	Financial well-being involves managing budgets, spending wisely, and feeling secure.	Salignac et al., 2020	Emphasizes practical money management and financial security in the present and future
	Credit card use impacts financial well-being, mediated by financial knowledge and self-efficacy.	Limbu & Sato, 2019	Examines the interplay between credit behavior and financial literacy.
	Financial parenting and expectations influence subjective financial well-being in youth.	Serido et al., 2010	Explores how family dynamics shape young people's financial behaviors and perceptions.
	Financial well-being is fulfilling current responsibilities while achieving financial independence and security	Mahendru, 2020	Combines practical financial management with a focus on independence and freedom.
	Financial well-being as the ability to sustain oneself, meet obligations, and save for future needs.	Fu, 2020	Focuses on individual capacity to manage finances within the structure of financial institutions and literacy.
Broad Conceptualization	Financial well-being as co-production influenced by competence (financial literacy) and relatedness (attachment style).	Mende & van Doorn, 2015	Links psychological factors like attachment styles to financial literacy and well-being outcomes.
	Credit card cues affect payment sensitivity, costs, and debt behavior	Wong & Lynn, 2020	Investigates behavioral economics aspects influencing financial decision-making.
	Financial stress, knowledge, behavior, and locus of control determine subjective financial well-being.	Mahdzan et al., 2019	Highlights psychological and behavioral determinants of household financial well being
	Economic strain impacts child well-being through family dynamics like complexity or structure.	Heintz-Martin & Langmeyer, 2020	Explores indirect effects of economic challenges on family members' well-being.
	Objective, subjective, and reference points are key measures of financial well-being.	Porter & Garman, 1992	Proposes a multidimensional framework for evaluating financial well-being holistically.
	Financial well-being includes meeting commitments, security, freedom of choice, and quality of life improvements.	Mahendru et al., 2020	Advocates for integrating subjective perceptions with objective measures in underdeveloped countries' contexts.
	Active saving, spending restraint, and avoiding borrowing drive financial well-being; locus of control is significant.	Kempson et al., 2017	Identifies behaviors and personal traits as critical drivers of financial well-being through empirical analysis in Norway.
	Perception of sustaining current/desired living standards with financial freedom defines financial well-being.	Brüggen et al., 2017a)	Identifies financial well-being as the perceived ability to sustain one's current or desired standard of living with
	Financial well-being refers to the perception of being able to sustain current and anticipated desired living standard and financial freedom.	Netemeyer et al., 2018	Identifies financial well-being as the stress associated with money management and expectations of future financial security.

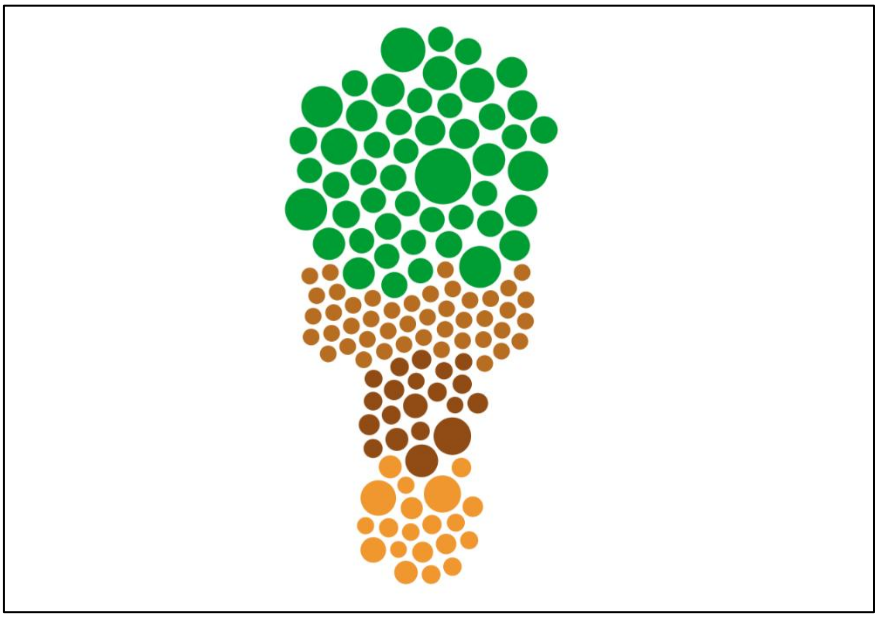
Source: Author's compilation (2025).

2.3 Descriptive analysis of the research corpus

To explore and outline the main research directions in financial well-being, especially in the context of a sizable dataset (n = 282),the Tree of Science, 2023 (ToS) tool, designed by the National University of Colombia, proves highly useful. This tool employs graph theory to analyze citation networks, offering a structured way to visualize the connections within a body of research. (Vargas-Quesada et al., 2017).

The Tree of Science organizes research into three hierarchical levels, starting with Roots, which represent seminal works that laid the foundation for the field. These are articles with high citation counts but minimal references to other works, acting as starting points for further research. Moving upward, the Trunk forms the central body of knowledge, connecting foundational theories (roots) to newer developments (leaves). The trunk is identified by analyzing the shortest citation paths between roots and leaves, helping to visualize core theories and methodologies that connect and refine earlier works. In addition, the Tree of Science identifies Branches, which are formed by clustering articles into specialized subfields or research themes based on citation patterns. These branches help uncover emerging topics and subfields within the broader research domain. Lastly, the Leaves represent the most recent and cutting-edge research in the field. These papers, which have not yet cited earlier works but are being cited by others, are key to tracking new trends and innovations in financial well-being research. The hierarchical structure of the Tree of Science thus allows researchers to navigate the research landscape, from foundational theories (roots) to specialized subfields (branches) and recent innovations (leaves).

Fig 6. Tree of science of the financial well-being from the 282 records.



Source: Source: Author’s compilation (2025).

Table 2. Distribution of Core Works by Tree Level and Dominant Research Themes.

Tree Level	N°of Articles	Leading Authors	Avg. Year	Avg. Citations	Dominant Topics	Key Themes (From Keywords)
Root	20	Consumer Financial Protection Bureau, 2017; Fernandes et al., 2014; Fornell & Larcker, 1981; Gerrans et al., 2014; Ghana Statistical Service, 2015; Gutter, 2011; Hair et al., 2009; S. Joo, 2008; S.-H. Joo, 2004; Lusardi & Mitchell, 2014b; National Center for Health Statistics, 2019; Prawitz et al., 2006; Shim et al., 2009; Van Praag, 2003; Vlaev et al., 2014; Xiao, 2017; Xiao & O'Neill, 2014.	~2005–2012	150–200	Foundational theories, conceptual models	Financial behavior, financial literacy, subjective well-being, measurement frameworks
Trunk	20	Anvari-Clark & Ansong, 2022; Bashir & Qureshi, 2023; D'Agostino et al., 2021; Guo et al., 2013; Ianole-Calin et al., 2021; Kumar et al., 2023; Mende & van Doorn, 2015; Nanda & Banerjee, 2021; Netemeyer et al., 2018; Ponchio et al., 2019; Riitsalu, 2022, 2023; Riitsalu & Murakas, 2019; Q. She, 2023; Singh & Malik, 2022; Utkarsh et al., 2020; van Raaij et al., 2023; Zhang & Cao, 2024, 2024.	~2013–2020	30–100	Theory building, research agendas	Financial capability, financial vulnerability, policy implications, cross-cultural studies, financial education
Leaves	50	(Ahamed, 2024; R. Alsuwaidi et al., 2024; Balatif et al., 2024; Bashir et al., 2024; Belekhov, 2023; Bhat et al., 2025; Botha et al., 2024; Brzozowski & Visano, 2023; Bulog et al., 2022, 2022; N. Cardoso et al., 2024; Chipunza & Fanta, 2024; Choowan et al., 2024; Dahlen et al., 2024; du Plessis et al., 2024; Ekpo et al., 2022; Fan, 2025; Farah et al., 2023; Gafoor et al., 2025; Garg et al., 2024; Hoang et al., 2023; Indapurkar et al., 2024; Investopedia, 2025; Kamaliah et al., 2024; K. Kim & Lee, 2025; Kulshreshtha et al., 2023; Laila et al., 2025; Larrimore, 2025; Lone & Bhat, 2024; Losada-Otalora et al., 2020; Lv et al., 2021; Mathew et al., 2024; Miecinskiene et al., 2023; Mundi et al., 2025; Nga & Kesumo, 2025; Phelps & Metzler, 2025; Ponchio et al., 2022; Silber et al., 2024; Tinghög et al., 2024; Versal et al., 2023; Vieira et al., 2023; J. J. Xiao, 2025; Yang & Li, 2025; Young, 2024; Zia-ur-Rehman et al., 2024)	~2021–2025	0–30	Emerging trends, new data	Financial resilience, COVID-19, digital inclusion, psychological impact, financial stress, financial well-being for millennials and Gen Z, scales to measure FWB, Financial stress
Branch 1	~10	(Clark et al., 2021; Ranyard et al., 2020; Rubio et al., 2022; Sarstedt et al., 2021; Tomar & Paluri, 2021; Topa et al., 2017; World Bank, 2023)	~2016–2024	30–70	Motivation, behavior, retirement	Behavior, retirement, financial well-being models (SEM)
Branch 2	~10	(A. Alsuwaidi, 2024; R. Alsuwaidi et al., 2024; Brzozowski & Visano, 2023; Laila et al., 2025; Nutassey et al., 2024; L. She et al., 2024; Q. She, 2023)	~2020–2025	0–40	Financial literacy, consequences	Financial literacy, satisfaction, capability
Branch 3	~10	Cherney et al., 2020; Hameed et al., 2024; Mountain et al., 2021; O'Connor & Kabadayi, 2021; Özen, 2021; Paylan, 2021; Ranta et al., 2024; Serido & Shim, 2020, 2023; Xue et al., 2020.	~2021–2024	0–30	Financial loss, financial strain, job loss	Psychological resilience, COVID-19, impact on financial well-being

Source: Author's compilation from the literature (2025).

From the Table, it is clear that the Tree of Science analysis categorizes a total of 282 articles, which collectively account for 19,265 citations. The analysis divides these articles into hierarchical levels: Roots, Trunk, Leaves, and Branches, offering a structured way to understand the evolution of financial well-being research.

At the Root level, the analysis reveals 20 seminal articles, which contribute significantly to the field's foundational theories. These articles, with citation counts ranging from 150 to 200, account for approximately 65% of the total citations, indicating their central role in shaping the field. Authors like Shim et al., (2009) and Lusardi & Mitchell, (2014) have had a significant influence, focusing on financial behavior, financial literacy, and subjective well-being. These seminal works serve as the foundations upon which later research builds.

The Trunk level contains 20 articles, which connect the Roots to newer developments. These articles receive 30 to 100 citations and represent about 30% of the total citations, reflecting their role in consolidating core theories and advancing the field. Nanda & Banerjee, (2021) and Brüggen et al., (2017) are among the authors contributing to the theoretical development of financial well-being, with a focus on financial capability and policy implications.

The Leaves, representing the most recent research, consist of 50 articles. These papers, typically with 0 to 30 citations, explore emerging trends such as financial resilience, COVID-19 impacts, and digital financial services. Despite their recent nature, they account for about 5% of the total citations. Notable articles by Bhat et al., (2025) and Gafoor et al., (2025) are examining financial literacy and its connection to digital inclusion and migrant workers' financial well-being.

The Branches reflect specialized subfields within the financial well-being research. Branch 1 focuses on financial behavior and psychological well-being, Branch 2 explores financial literacy and financial socialization, and Branch 3 addresses the social and economic context of financial well-being, especially in terms of financial resilience during crises.

Overall, as the Tree of Science results indicate, the Roots and Trunk levels account for a significant portion of the total citations (approximately 95%), while the Leaves, though newer, highlight the emerging trends in the field. With a total of 282 articles and 19,265 citations, this classification provides a clear view of how financial well-being research has evolved from its foundational roots to cutting-edge developments and focused on the most significant 120 articles which are going to be included in the qualitative data analysis.

Table 3. Research design of publications.

Research design	No. of studies	Percentages (%)
Quantitative	48	40
Primary data analysis	28	23
Secondary data analysis	14	11,6
Qualitative	19	15,8
Interview	10	8,3
Conceptual	18	15
Mixed methods	15	12,5
Total	120	100%

Source: Author's compilation (2025).

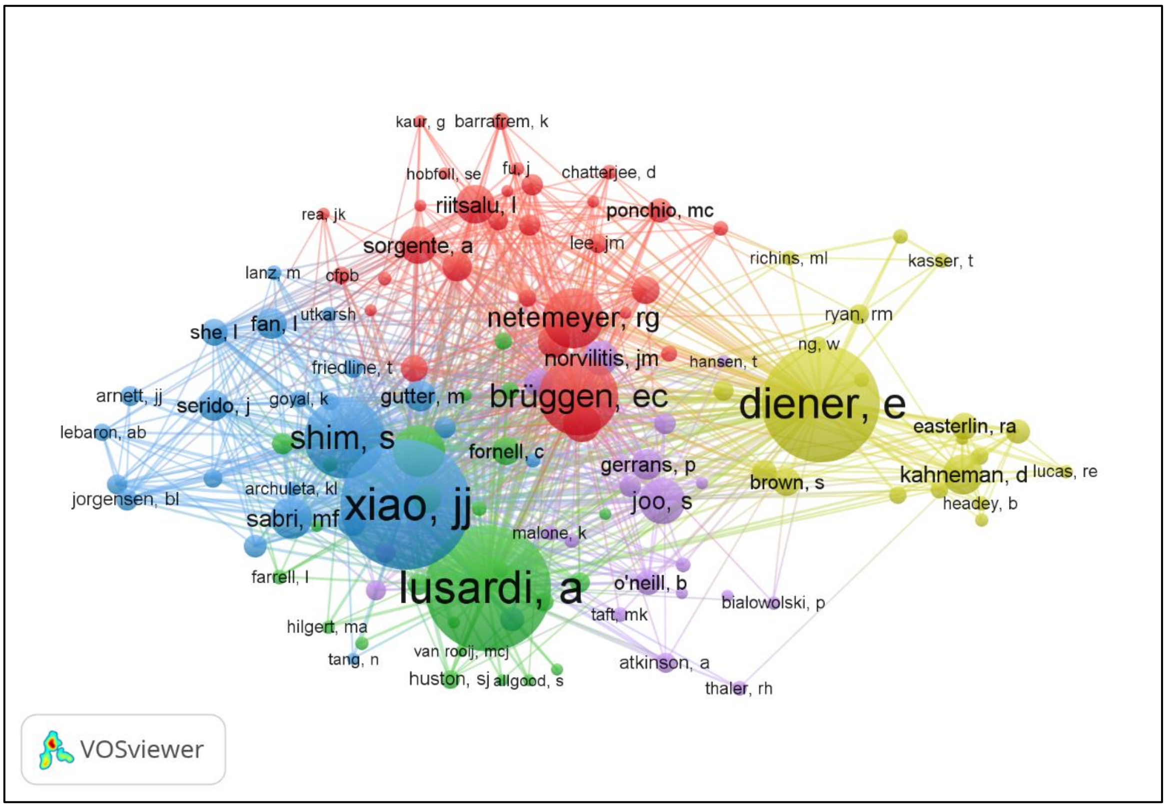
3 Bibliometric analysis

This section discusses a bibliometric study of 282 articles about financial well-being published between 2000 and 2025. We found these articles using a systematic literature review. We summarize the key findings and look for common themes using a narrative synthesis. The study uses bibliometrics to analyze research trends, citation patterns (such as most cited papers and networks), keywords, author collaborations, connections between papers (bibliographic coupling), and top journals. The main goal of this section is to show how research on financial well-being has developed.

3.1 Social & Intellectual structure of the publications

3.1.1 *Financial well-being co-citation network*

Fig 7. Analysis of co-cited documents related to financial well-being, 2000–2025.



Source: Authors compilation using VOS viewer (2025).

The co-citation network presented above reflects the intellectual relationships between authors in the field of financial well-being, based on how frequently pairs of authors are cited together in the same publications (Culnan, 1987). These techniques belong to a broader category known as document coupling methods. In comparison, author co-citation occurs when a researcher cites the works of two distinct authors together in a single publication.(Culnan, 1986). Each node represents an author, sized according to their total co-citation frequency, while proximity and color grouping indicate thematic and disciplinary similarities. This map was generated using VOSviewer and captures distinct clusters of intellectual influence within the literature.

Several major clusters emerge, each representing a unique thematic or disciplinary subfield:

- The blue cluster, representing Behavioral Finance and Financial Socialization, is dominated by Xiao, J.J., Shim, S., and Lusardi, A. These authors are central to research on financial capability, youth financial socialization, and financial literacy education. Their frequent co-citation suggests a strong intellectual synergy among studies addressing how individuals—particularly young adults—develop financial knowledge and behaviors.

- The red cluster corresponds to Consumer Behavior and Financial Vulnerability. It is led by Brüggen, E.C., Netemeyer, R.G., and Norvilitis, J.M., who are commonly cited together in research on consumer financial vulnerability, subjective financial well-being, and psychometric measurement tools. The inclusion of Riitsalu, L., Ponchio, M.C., and Chatterjee, D. in this cluster signals a growing emphasis on cross-cultural and emerging market perspectives in the financial well-being literature.

- The yellow cluster, representing Subjective Well-Being and Economic Psychology, is anchored by Diener, E., Kahneman, D., and Easterlin, R.A. These scholars are foundational to the study of subjective well-being, offering theoretical insights that connect economic conditions, life satisfaction, and psychological health—a conceptual base that significantly informs financial well-being research.

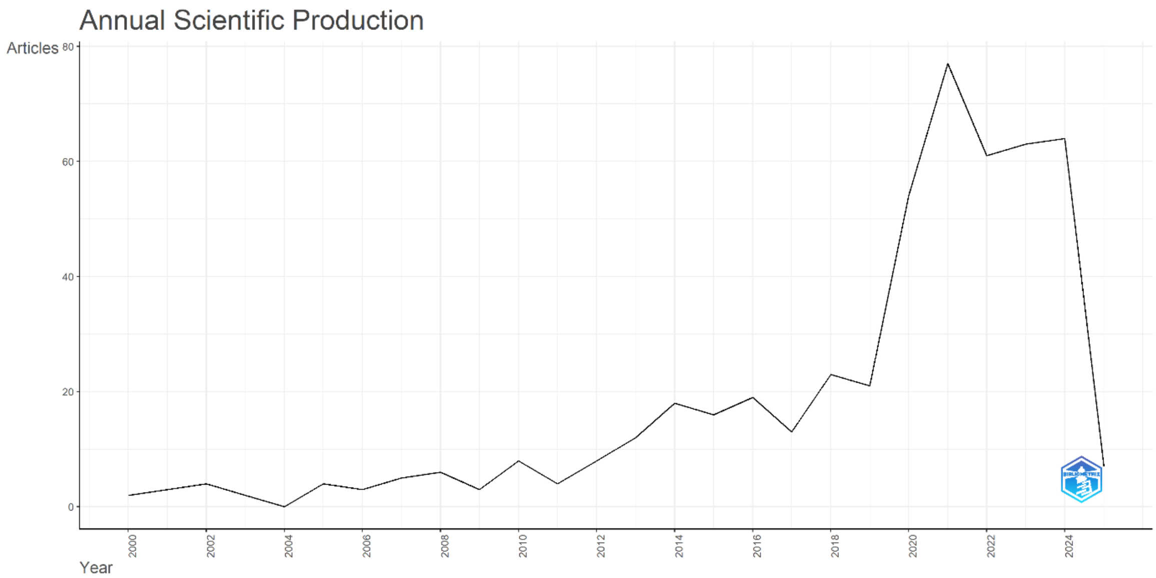
- The green cluster reflects work in Household Finance and Financial Literacy. Led by Lusardi, A., this cluster overlaps conceptually with the blue cluster but focuses more on policy-oriented financial literacy, retirement preparedness, and financial decision-making. The co-citation of Van Rooij, M.C., Huston, S.J., and Hilgert, M.A. highlights ongoing efforts to quantify the impact of financial literacy on consumer financial outcomes.

- Finally, the purple cluster pertains to Measurement and Institutional Approaches. Although smaller, it remains significant and includes authors such as Atkinson, A., Joo, S., O'Neill, B., and Gerrans, P. This group is closely associated with financial counseling, well-being assessment tools, and institutional frameworks for financial education. Its modest size may indicate an underexplored yet emerging area of research, potentially ripe for further investigation in future financial well-being agendas.

3.1.2 *Annual scientific production*

Figure 8 presents the annual scientific production on financial well-being from 2000 to 2025, revealing a consistent upward trend in the number of publications. Due to the limited number of studies in the early 2000s, the data collection begins at the year 2000. The figure illustrates a gradual increase in scholarly output over this period, culminating in a substantial surge in publications from 2024 onwards. Notably, in 2024, the number of articles peaked at 51 documents, representing the highest annual output recorded to date. Overall, Figure 5 effectively depicts the evolving academic interest and expanding research activity in the field of financial well-being over the 25-year span.

***Fig* 8.** Annual scientific production on financial well-being from 2000 to 2025.



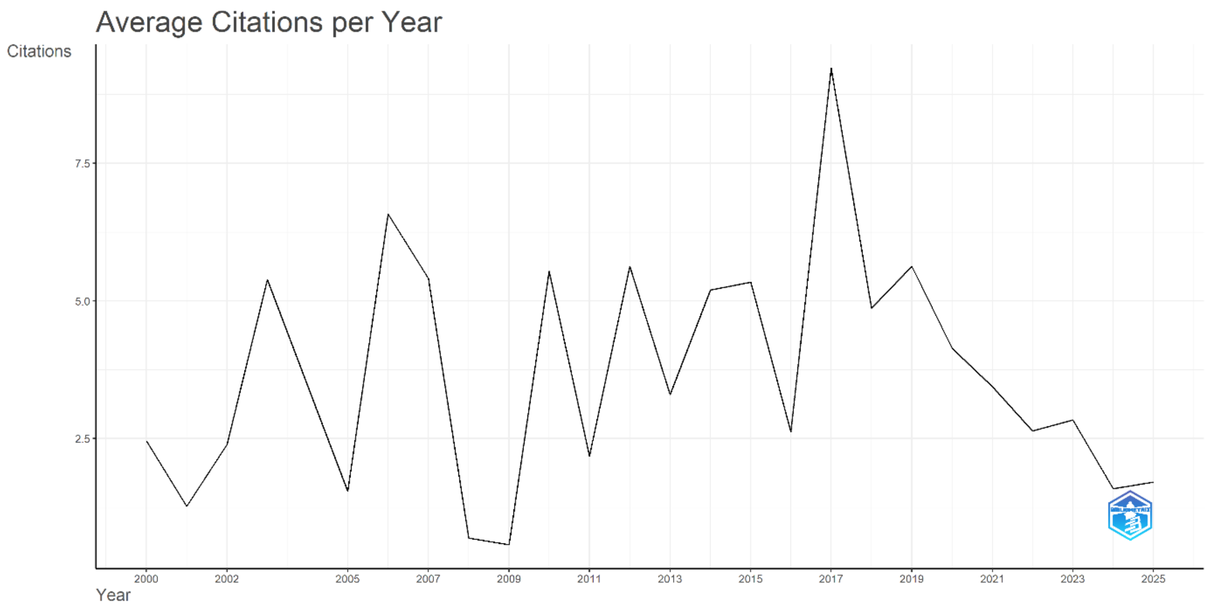
Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.1.3 *Average citation per year*

Figure 9 shows that the average number of citations per year in financial well-being research fluctuated between 2000 and 2025, with a notable peak in 2017, reaching around 9.2 citations per article. This surge aligns with the publication of high-impact documents, particularly Brüggen et al., (2017) and Netemeyer et al., (2018), which introduced widely adopted models for conceptualizing and measuring financial well-being.

The 2017 peak reflects a moment of theoretical consolidation and growing academic attention to financial vulnerability, consumer behavior, and subjective well-being—issues that gained urgency post-financial crisis (Brüggen et al., 2017; Kempson et al., 2017; Lusardi & Mitchell, 2014; Netemeyer et al., 2018; Shim et al., 2009). Although citation rates stabilized in later years, interest in the topic remains high, supported by emerging themes like financial resilience and digital inclusion (El-Zoghbi et al., 2021; OECD, 2021; M. S. Sherraden, 2013; Zins & Weill, 2016).

Fig 9. Average citation per year for financial well-being.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.1.4 *Three field plots*[3]

At the center, the United States (USA) appears as the most prolific and influential contributor, linking to a broad range of journals and key themes such as financial well-being, literacy, knowledge, and behavior (Brüggen et al., 2017; Lusardi & Mitchell, 2014b; Netemeyer et al., 2018). This reflects its longstanding institutional leadership in financial behavior research and measurement (Kempson et al., 2017; Shim, Xiao, et al., 2009).

Countries like India, Malaysia, and Brazil also show growing output, focusing on themes such as well-being, financial inclusion, and stress—often in the context of developing economies (El-Zoghbi et al., 2021; Xu & Zia, 2012; Zins & Weill, 2016)Their contributions typically address access to services, digital banking, and economic vulnerability.

Malaysia, in particular, is closely tied to financial literacy, reflecting policy efforts in education OECD, (2021) Likewise, South Africa, Pakistan, and Indonesia contribute to

[3] The three-field plot provides a visual representation of the interrelationships between publication sources (SO), contributing countries (AU_CO), and dominant research themes (DE) in financial well-being. It enables a deeper understanding of how geographic origin and publication outlets shape the thematic direction of the literature (Aria & Cuccurullo, 2017; Donthu et al., 2021).

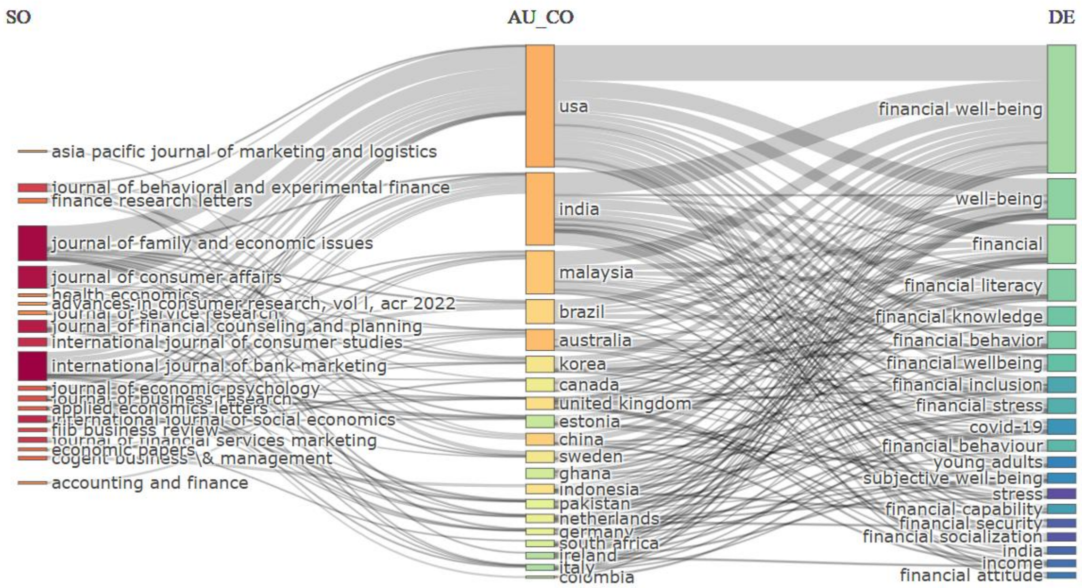
emerging areas like financial socialization, security, and capability (Atkinson & Messy, 2012; M. S. Sherraden, 2013).

On the left, journals such as the *Journal of Family and Economic Issues*, *Journal of Consumer Affairs*, and *International Journal of Consumer Studies* are closely connected to high-output countries. These serve as key venues for empirical and theoretical research on financial behavior (Lusardi, 2015; J. J. Xiao & O'Neill, 2016).

The right side shows thematic diversity. While financial well-being remains dominant, related terms like subjective well-being, financial capability, and inclusion reflect an interdisciplinary agenda (Diener et al., 1999; M. Sherraden et al., 2015). The appearance of terms like COVID-19, young adults, and stress underscores the field's responsiveness to contemporary challenges and its integration of psychological and public health perspectives (El-Zoghbi et al., 2021; OECD, 2021).

In sum, the three-field analysis highlights the geographic concentration of research, the journal ecosystems, and the evolving thematic landscape. It reveals both dominant structures led by high-income countries and growing contributions from developing economies exploring context-specific themes like inclusion, stress, and resilience (Donthu, 2021; Xu & Zia, 2012).

Fig10. The three field plots between Sources, Authors and Key words plus And Countries.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.1.5 *Most relevant sources*

The following tale depicts the findings of the top 10 most relevant sources that have concentrated on publishing research articles on financial well-being. The results are based on Scopus data retrieved between 2000 and 2025. From the figure, it is evident that *'The international journal of bank Marketing'* Other notable sources include "the Journal of Family and Economic Issues, Frontiers in Psychology, Social Indicator Research and so on". Among these relevant sources, 'International Journal of Bank Marketing' ranks at the top with (h-index = 16), (g-index = 32), (m-index = 1.455) and a total number of citations of 1066. Table 4 presents a list of the most influential academic journals in the field of financial well-being, ranked by their source impact factors.

Table 4. Leading journals with source impacts.

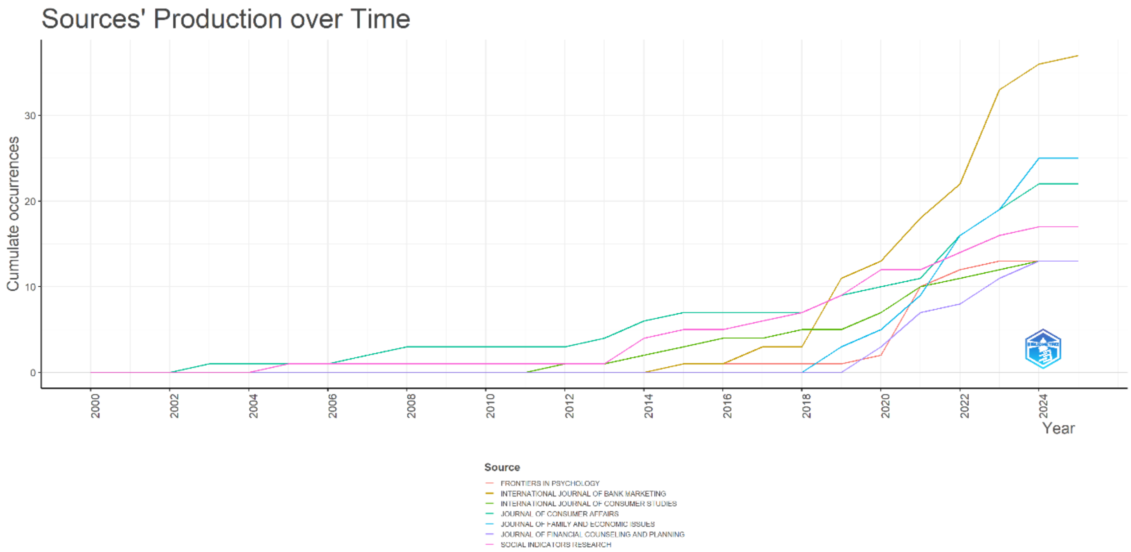
Source	h_index	g_index	m_index	tc	np	py_start
International journal of bank marketing	16	32	1,455	1066	37	2015
Journal of family and economic issues	13	21	1,857	477	25	2019
International journal of consumer studies	11	13	0,786	577	13	2012
Social indicators research	11	17	0,524	894	17	2005
Journal of banking \& finance	10	11	0,5	409	11	2006
Journal of consumer affairs	10	19	0,435	379	22	2003
Frontiers in psychology	8	13	0,727	192	13	2015
Journal of financial economics	7	7	0,292	769	7	2002
Journal of behavioral and experimental finance	6	9	1	195	9	2020
Journal of corporate finance	6	6	0,462	339	6	2013

Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.1.6 *Sources production over time*

The production trends of the top 5 sources from 2000 to 2025 are illustrated in Figure 11. "The Journal of Financial Counseling and Planning" is noted as the leading journal, with its production steadily increasing over the years. The production of the 'Journal of Family and Economic Issues' was initiated in 2009 and has been growing consistently since then. Production of 'The International Journal of Bank Marketing' emerged in 2015 and has experienced significant growth over the past 9 years. Social indicator research was initiated in 2005, showing steady growth each year. Frontiers in Psychology is a newly emerging field that has experienced growth over the past 4 years. This figure shows the cumulative research output of key journals in the field of financial well-being, tracked annual.

***Fig*11 .** Source production overtime.

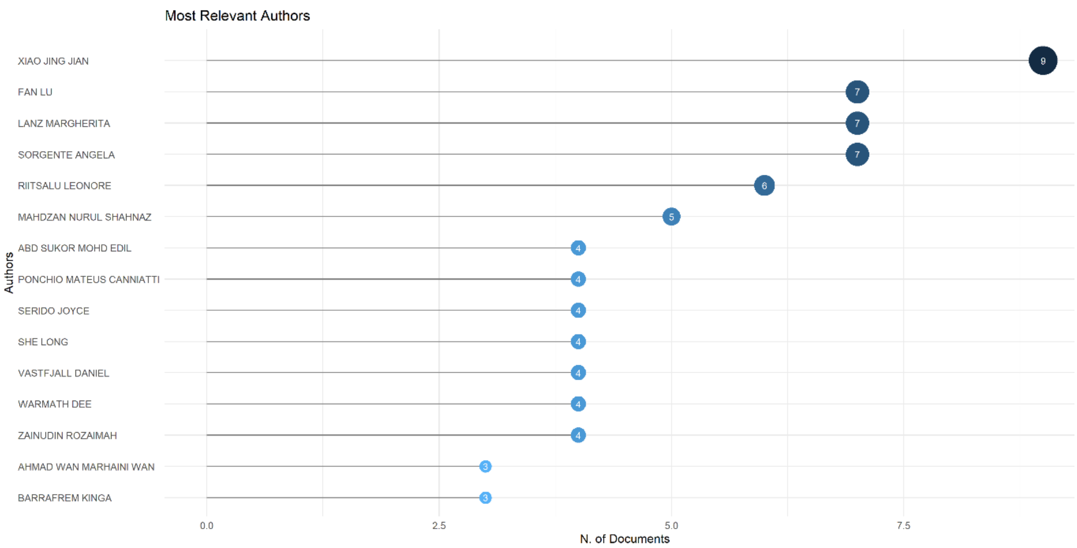


Source: Author’s compilation using Bibliometrix-Biblioshiny (2025).

3.1.7 *Most relevant authors*

This bibliometric analysis of 282 records identifies out of 845 authors, the author Xiao Jing Jian as the most relevant author in financial well-being with 9 documents. Other key contributors include *Fan Lu*, *Lanz Margherita*, and *Sorgente Angela*, each with 7 documents. The graph visualizes the relative impact of these authors based on publication count.

Fig 12. *Most relevant authors.*

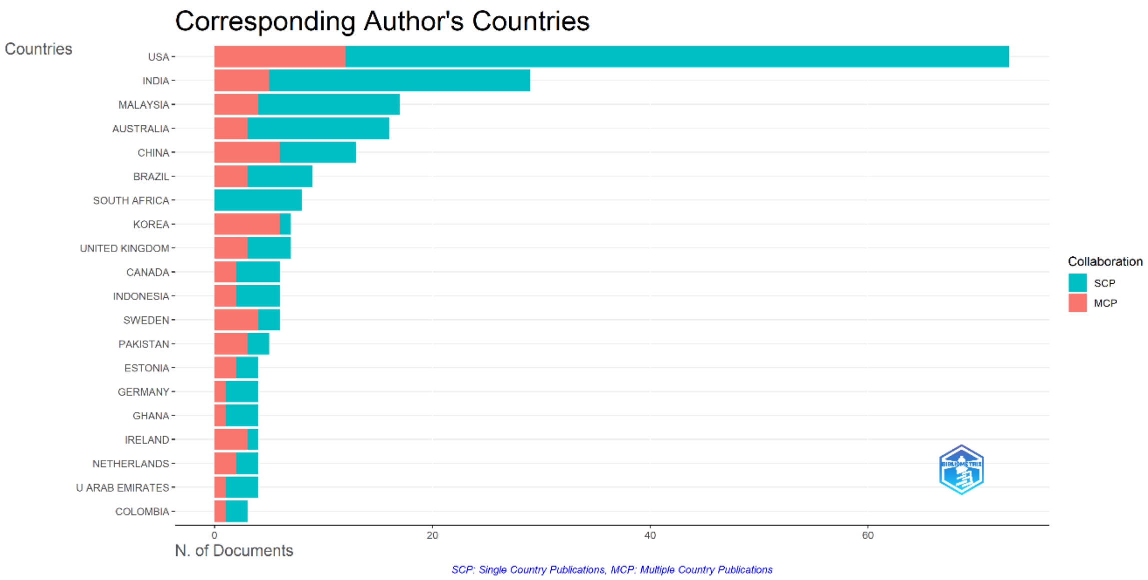


Source: Author’s compilation using Bibliometrix-Biblioshiny (2025).

3.1.8 *Article citations of leading countries*

Figure 13 shows the corresponding author's country. The data reveal that the majority of the corresponding authors were from the USA (N=61), with India (N=24), Malaysia (N=13), and Australia (N=13) and china (N=7), being among the top five countries.This figure illustrates the countries with the highest number of citations for articles on financial well-being.

Fig 13. Leading countries article citation on financial well-being.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

Analysis of corresponding author countries indicated that the USA led in financial well-being publications, being the most cited country with 2,282 citations and contributing 25.9% of the articles in the review. Korea demonstrated the highest rate of international collaboration (85.7%). India published the second-highest number of articles (29, or 10.3% of the total), of which 5 involved collaborations with other countries.

Table 5. of articles published in leading countries on financial wellbeing.

Country	*Articles*	*Articles %*	*SCP*	*MCP*	*MCP %*
USA	73	25,9	61	12	16,4
India	29	10,3	24	5	17,2
Malaysia	17	6	13	4	23,5
Australia	16	5,7	13	3	18,8
China	13	4,6	7	6	46,2
Brazil	9	3,2	6	3	33,3
South Africa	8	2,8	8	0	0
Korea	7	2,5	1	6	85,7
United Kingdom	7	2,5	4	3	42,9
Canada	6	2,1	4	2	33,3

Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

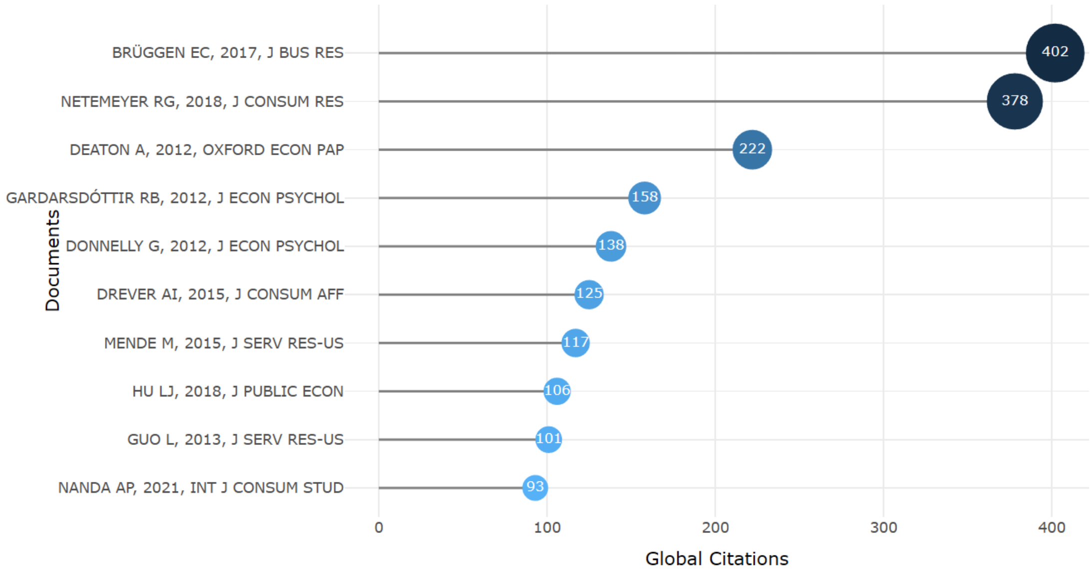
3.1.9 *Most globally cited documents*

The global citation analysis highlights publications with the broadest scholarly impact across disciplines. These works are foundational, frequently cited beyond financial well-being, and influential in economics, psychology, and consumer behavior. Brüggen et (al., 2017) (*Journal of Business Research*), with 402 citations, provides a widely adopted conceptual framework for financial well-being, integrating subjective and psychological dimensions. Netemeyer et al., (2018) (*Journal of Consumer Research*).

Follows with 378 citations, offering a validated scale for measuring perceived financial well-being that has become standard in empirical studies. Deaton, (2012) (*Oxford Economic Papers*, 222 citations) links income to subjective well-being, influencing both micro- and macro-level welfare analyses. Studies like Gardarsdóttir & Dittmar, (2012) and Donnelly et al., (2012) (*Journal of Economic Psychology*) delve into materialism and emotional dimensions, emphasizing the psychological roots of financial behavior.

Collectively, these globally cited documents represent the interdisciplinary foundation of the financial well-being field, shaping research across economic, behavioral, and policy domains.

Fig 14 The Most Global Cited Articles.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

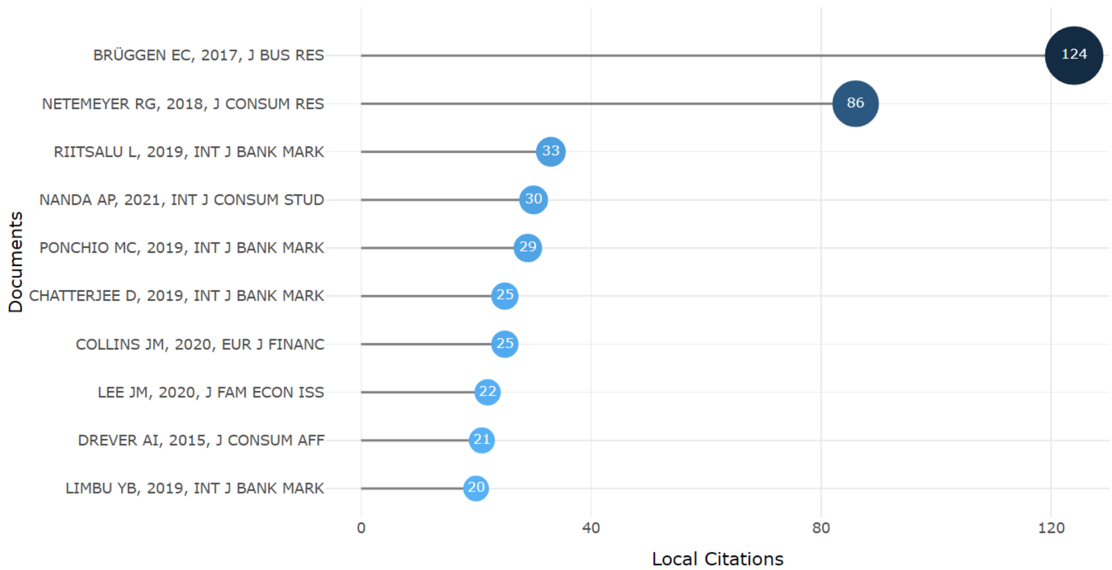
3.1.10 *Most Local Cited documents*

Local citation analysis identifies the most influential works within the dataset of 282 articles, reflecting documents that shape the field's internal discourse and research agenda. Brüggen et al., (2017) again ranks highest (124 local citations), confirming its central role both globally and within specialized research. Netemeyer et al., (2018) also remains highly cited (86 local citations), reflecting its practical use in financial well-being measurement.

Notably, several documents rank high locally but not globally, signaling emerging, context-specific relevance. For example, Riitsalu & Murakas, (2019) and Ponchio et al., (2019) (*International Journal of Bank Marketing*) address financial capability and inclusion in transition economies, while Nanda & Banerjee, (2021) (International Journal of Consumer Studies) emphasizes resilience during economic shocks.

Others like Chatterjee et al., (2019) (*Journal of Consumer Affairs*) , (J. M. Collins & Urban, 2020) (*The European Journal of Finance*), and Lee et al., (2020) (*Family Science Review)* contribute to the literature on behavioral finance and financial stress, pointing to evolving concerns in post-crisis and digital finance contexts. These locally cited studies reflect the dynamic core of financial well-being research, emphasizing current trends and thematic development within the field.

Fig 15The Most Local Cited Articles.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.1.11 *Collaborations across countries*

Figure 16 illustrates the country collaboration network derived from co-authorship patterns in the financial well-being literature. The visualization reveals that the United States of America maintains the most extensive and dense collaborative network, acting as a central hub in global research production. Authors affiliated with institutions in the USA, United Kingdom, and Germany are the most actively involved in cross-border scholarly collaboration (Donthu et al., 2021; B. Guo & Huang, 2023). Secondary clusters of collaboration include researchers from Australia, Spain, the Netherlands, and Malaysia, which appear as regional nexuses of academic exchange.

The United States not only leads in collaborative output but also in overall contribution volume. This dominance can be attributed to the presence of long-standing financial behavior research centers, consistent funding mechanisms, and the integration of financial well-being into broader public policy discussions—particularly in the aftermath of the 2008 global financial crisis and the COVID-19 pandemic (Brüggen et al., 2017; Netemeyer et al., 2018b; OECD, 2021). These events intensified interest in household financial resilience, vulnerability, and the psychological dimensions of economic stress, sparking a surge in empirical studies originating from U.S.-based scholars.

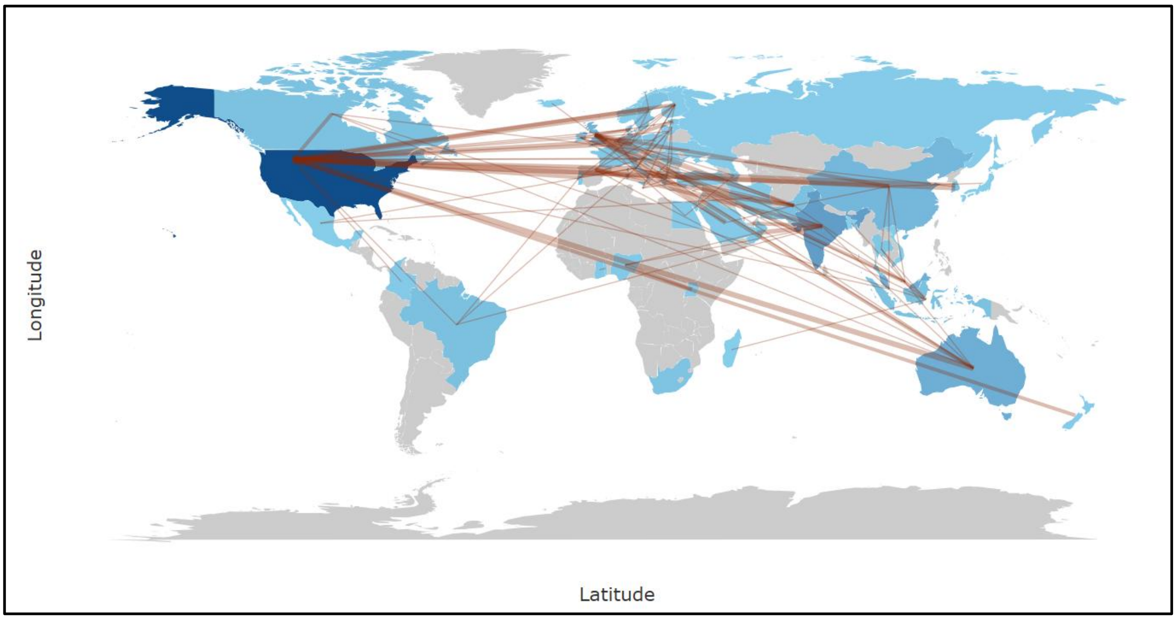
Despite the emergence of some international collaborations, participation from developing and underdeveloped countries remains limited. In particular, authors from regions such as Sub-Saharan Africa and the broader Middle East and North Africa (MENA) are underrepresented in the dataset (Djalilov & Ünal, 2018; Mani & Mishra, 2022). Although Nigeria, Egypt, and South Africa have begun contributing more visibly to the discourse—often in collaboration with scholars from the Global North—these efforts are still fragmented and not yet embedded within robust research networks .(United Nations Conference on Trade and Development (UNCTAD), 2023)

Research output from the MENA region is growing slowly, often driven by economic reform agendas, digital banking initiatives, and financial inclusion policies (Alliance for Financial Inclusion (AFI), 2021; El-Zoghbi et al., 2021). However, the lack of sustained international collaboration, access to data, and institutional support limits its global visibility. In comparison, countries such as India, Malaysia, and Indonesia, while also classified as developing economies, exhibit higher levels of integration into the global research ecosystem, benefiting from bilingual publication strategies and targeted government investment in financial education programs (World Bank, 2022; Zins & Weill, 2016).

The network also highlights a clear structural imbalance: authors from developed economies dominate both the volume and direction of financial well-being research, while scholars from underdeveloped and low-income regions often remain at the periphery of collaborative networks (Glenn et al., 2023). This disparity points to a pressing need for inclusive research agendas that incorporate context-specific indicators of financial well-being, particularly in regions with high levels of financial exclusion and economic precarity (Kempson et al., 2017; Xu & Zia, 2012).

In conclusion, while financial well-being research is expanding globally, collaborative networks remain asymmetrically distributed, favoring high-income countries. To foster a more equitable and diversified knowledge base, future bibliometric efforts and funding mechanisms should actively promote South-South cooperation and facilitate access for researchers in emerging and frontier economies (International Fund for Agricultural Development (IFAD), 2023; UNESCO, 2021).

Fig 16. Country collaboration map.



Source: Developed by the author utilizing Bibliometrix-Biblioshiny (2025)

3.2 Conceptual Structure of Financial Well-Being Research: A Visual Thematic and Temporal Analysis

To explore the intellectual foundations and temporal evolution of the financial well-being research domain, this subsection offers an in-depth thematic mapping based on a bibliometric analysis of the literature. The approach integrates keyword co-occurrence networks, co-word strategic diagrams, multidimensional scaling (MDS) through factorial analysis, and a longitudinal examination of thematic trends (Fig. 17–20). The visualizations and analyses were independently developed by the authors using the data analysis tools, drawing methodological inspiration from Mahendru et al., (2022).

3.2.1 *Co-occurrence network analysis*

According to Comerio & Strozzi, (2019), author-assigned keywords represent the themes explored in reaserch articles. To uncover the prevalent concepts in financial wellbeing research, a keyword analysis was performed using VOS Viewer software. Across 282 research papers, a total of 1,256 keywords were identified. Table 17 shows the most often used keywords in financial well-being research from 2000 to 2025. The analysis highlights that the term 'financial well-being' stands out as the most prevalent keyword, occurring (141) times, underscoring its prominence as a central concept within the literature. Closely following the next most regularly used keywords are 'financial literacy' (35), 'financial behavior' (32), and 'financial knowledge' (44). The findings suggest that financial well-being is intimately linked with concepts such as literacy, behavior, knowledge, capability, education, attitudes, satisfaction and socialization, which also suggest that there are 7 clusters which represents themes related to financial well-being. Figure 17 depicts the frequency with which certain keywords appear together in financial wellbeing research.

The VOSviewer keyword co-occurrence network illustrates the structure of the financial well-being literature, clustering terms into seven thematic domains. The red cluster includes concepts such as inequality, income inequality, access, and hardship, and aligns with structural and socioeconomic determinants of financial well-being. These keywords reflect macroeconomic conditions and institutional barriers that limit individuals' financial security and resilience. This supports the argument that financial well-being is not merely a personal or behavioral outcome, but is deeply rooted in systemic inequalities (Brüggen et al., 2017; Lusardi & Mitchell, 2014a; Netemeyer et al., 2018; OECD, 2023).

The blue cluster represents subjective experience and psychological context. It includes terms such as mental health, family, unemployment, and older adults. These terms highlight the non-material, emotional, and relational dimensions of financial well-being. The presence of these terms suggests that financial satisfaction is influenced by life stage, familial responsibilities, mental state, and employment status (Brüggen et al., 2017; Netemeyer et al., 2018; Sorgente & Lanz, 2019; J. J. Xiao & O'Neill, 2014).

The green cluster intersects financial behavior and subjective experience. It incorporates terms such as debt, money, credit-card debt, and attitudes, reflecting the ways in which individual financial decisions are embedded in emotional and attitudinal contexts. Research has emphasized how financial stress and indebtedness can degrade subjective well-being and limit proactive financial behavior (Fernandes et al., 2014; Lusardi, 2015; Netemeyer et al., 2018; J. J. Xiao & Porto, 2017).

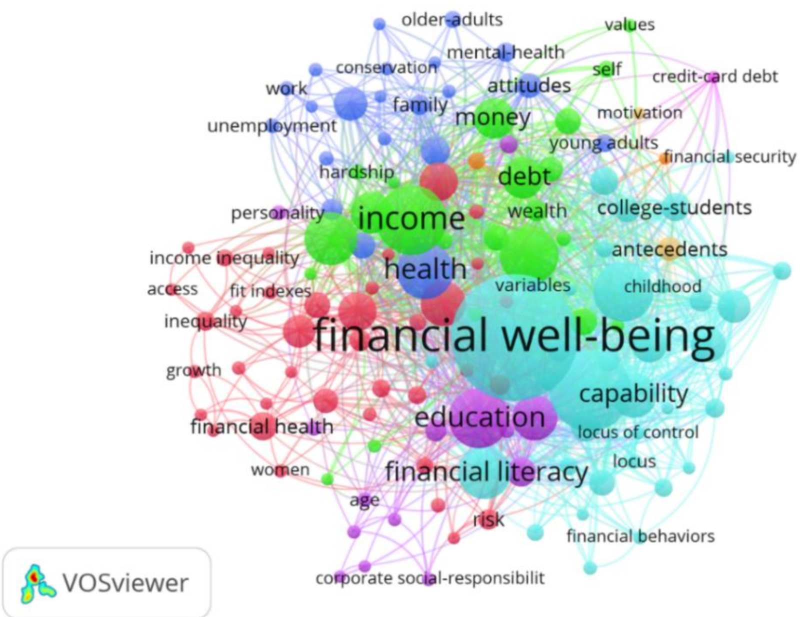
The purple cluster focuses on education and literacy, capturing the knowledge and skillset required to manage finances effectively. Keywords include financial literacy, education, and risk, mapping directly onto the financial knowledge component of the Manhandru framework. Numerous studies have demonstrated that financial literacy improves savings, budgeting, investment behaviors, and risk management, ultimately enhancing financial well-being (Atkinson & Messy, 2012; Kempson & Poppe, 2018; Lusardi & Mitchell, 2014; OECD, 2023).

The yellow cluster emphasizes motivation, life stage, and early financial socialization. Terms like motivation, young adults, college students, and childhood suggest that financial behaviors and beliefs are formed through early learning experiences and developmental milestones. This aligns with findings from the youth financial capability literature, which links early exposure to money management with long-term well-being (Gudmunson & Danes, 2011; J. Kim & Chatterjee, 2013; Serido et al., 2013; Shim, Xiao, et al., 2009).

The orange cluster is methodological in nature, including terms such as predictors, antecedents, and variables. It corresponds to empirical efforts to identify the determinants and mechanisms of financial well-being through structural modeling and hypothesis testing. This reflects the literature's focus on causality, measurement, and scale validation (CFPB, 2017; Mahendru et al., 2022; Ponchio et al., 2019; Sorgente & Lanz, 2019).

The cyan cluster introduces a new conceptual dimension: Financial Agency. This includes keywords such as capability, self-efficacy, locus of control, motivation, and values. Unlike personality traits or financial knowledge, this cluster highlights an individual's belief in their capacity to act intentionally and effectively in financial contexts. It resonates with Sen's (1993) Capability Approach, Bandura's (1997) Self-Efficacy Theory, and emerging empirical work on perceived financial autonomy and empowerment (Brüggen et al., 2017b; CFPB, 2017; Kempson & Poppe, 2018; Serido et al., 2013; J. J. Xiao & O'Neill, 2014).

Fig 17. Co-occurrence keywords from 2000 to 2025.

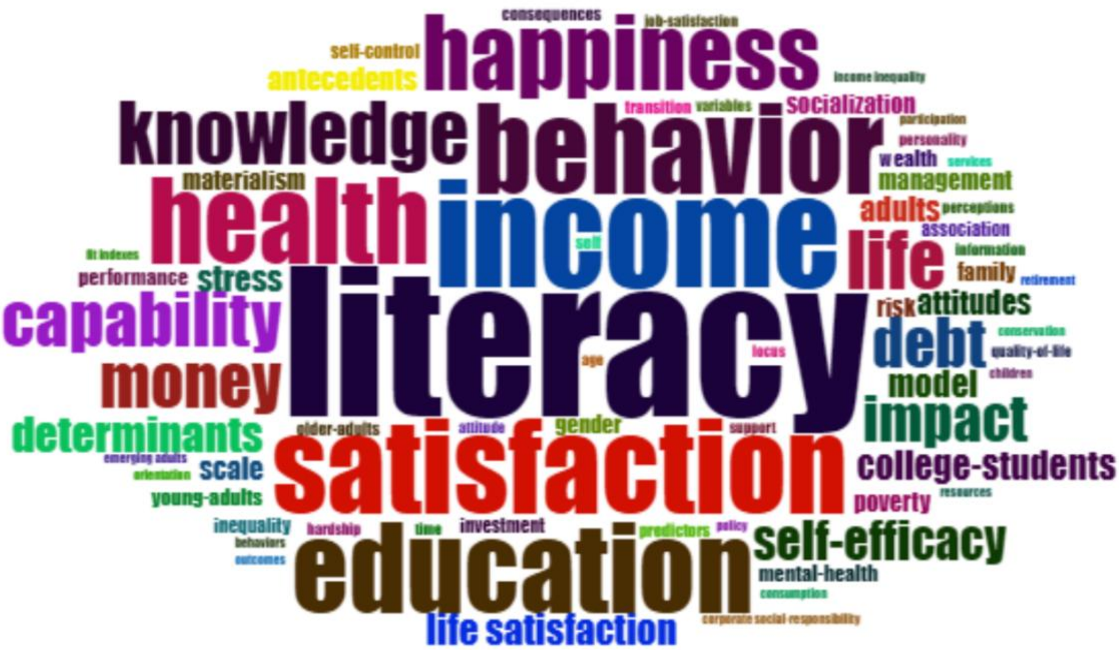


***Source*:** Author's compilation using VOS viewer (2025).

3.2.2 *Word cloud*

The word cloud illustrates the most frequently occurring concepts in the financial well-being literature. Prominent terms such as ***"literacy," "income," "satisfaction,"*** and ***"behavior"*** reflect the central constructs emphasized by scholars. Financial literacy appears as the most dominant theme, supporting previous findings that financial knowledge is a key determinant of individual financial behavior and well-being (Lusardi & Mitchell, 2014; OECD, 2023). The salience of ***income*** and ***debt*** aligns with the role of objective financial indicators in shaping financial stability and stress levels (CFPB, 2017; Netemeyer et al., 2018). Likewise, ***satisfaction*** and ***happiness*** reflect the subjective dimension of financial well-being, often linked to perceived financial control and future security (Brüggen et al., 2017; Sorgente & Lanz, 2019). Terms such as ***self-efficacy***, ***capability***, and ***behavior*** emphasize the psychological and behavioral components underpinning financial decision-making and resilience (Shim, Xiao, et al., 2009; J. J. Xiao & Porto, 2017). This visualization confirms that financial well-being is a ***multidimensional construct*** shaped by cognitive, emotional, and economic factors, as suggested by integrative frameworks in recent scholarship (Brüggen et al., 2017; Mahendru et al., 2022).

Fig 18. Word cloud of financial well-being.



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.2.3 *Trending topics and their frequency related to financial well-being from 2000-2025*

This figure illustrates how topics have evolved over the years, with '**topics list'** on the y-axis and 'years' on the x-axis. The 'blue-colored line' signifies the significant period during which the topic t was addressed by scientific publications. The size of the 'blue circle' varies depending on the number of papers published in the specific year related to topic t. Keywords serve as condensed representations of the primary concepts discussed within a specific article.

Keyword analysis assists researchers in understanding the thematic development of a particular area of research (Wang et al., 2018). The following Figure illustrates the emerging terms related to financial well-being extracted from author keywords. Bibliometric analysis revealed that the term 'financial well-being' had the greatest trend in 2021. Additionally, topics such as "financial education, financial knowledge and financial satisfaction" remain focal points for scholars in this field. Furthermore, new topics, such as well-being evidence and digital financial literacy, and some new considerations of Financial Well-Being as the Link to Key Sustainable Development Goals 2030, these topics emerged in 2023.

Table 6. List of top keywords related to financial-well-being ranked by their frequency of occurrence.

Keyword	Occurrences	Total Link	Keyword	Occurrences	Total Link
financial well-being	141	662	financial socialization	7	147
financial literacy	35	437	financial self-efficacy	6	149
financial behavior	32	277	happiness	6	147
financial knowledge	17	276	life satisfaction	6	137
financial stress	14	225	satisfaction	6	131
financial inclusion	12	217	behavior	5	109
financial capability	11	188	debt	5	103
subjective well-being	10	179	financial satisfaction	5	102
young adults	10	178	financial services	5	100
financial attitude	8	172	materialism	5	98
income	8	153	social capital	5	94
financial security	7	149	financial education	4	93

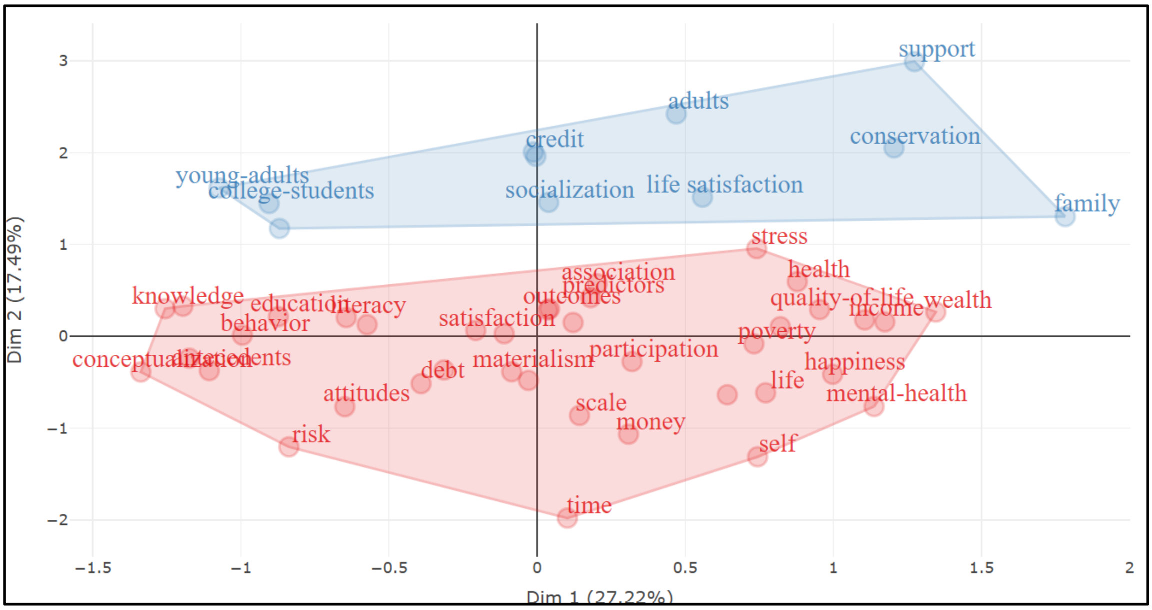
Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

3.2.4 *Factorial Thematic Mapping*

To deepen the structural understanding of thematic proximity in the financial well-being literature, a multidimensional scaling (MDS) technique was applied, producing a factorial map that spatially arranges keywords based on their semantic and co-occurrence similarity.

The analysis reveals three latent dimensions shaping the intellectual landscape. *Dimension 1 (X-axis)* contrasts instrumental constructs—such as *literacy*, *knowledge*, and *attitudes*—with outcome-oriented themes including *happiness*, *satisfaction*, and *stress*. *Dimension 2 (Y-axis)* distinguishes individual-level attributes (*age*, *locus of control*, *financial socialization*) from macro-structural drivers like *income*, *debt*, and *inequality*. A third, implicit dimension—Depth Clustering—segregates exploratory or peripheral themes (*values*, *experiences*, *motivation*) from thematically mature constructs, indicating varying degrees of scholarly consensus.

Fig. 19 Factorial Mapping of Financial Well-Being Themes via MDS.[4]



Source: Author's compilation using Bibliometrix-Biblioshiny (2025).

Outlier positioning of terms like *literacy*, *attitudes*, and *college students* highlights the underexplored yet conceptually distinct role of youth-focused financial education. In contrast, centrally located terms such as *quality of life*, *income*, and *wealth* reaffirm their position as foundational anchors in financial well-being research (Madero-Cabib & Fasang, 2016a; Panisch et al., 2019). The left quadrant, dominated by red nodes, encapsulates youth-specific constructs such as *attitude*, *locus*, and *socialization*, which align with

[4] Multidimensional scaling (MDS) technique.

dispositional and developmental factors underpinning early financial behavior formation (Riitsalu et al., 2024; Serido et al., 2013; Serido & Shim, 2020; Shim, Barber, et al., 2009).

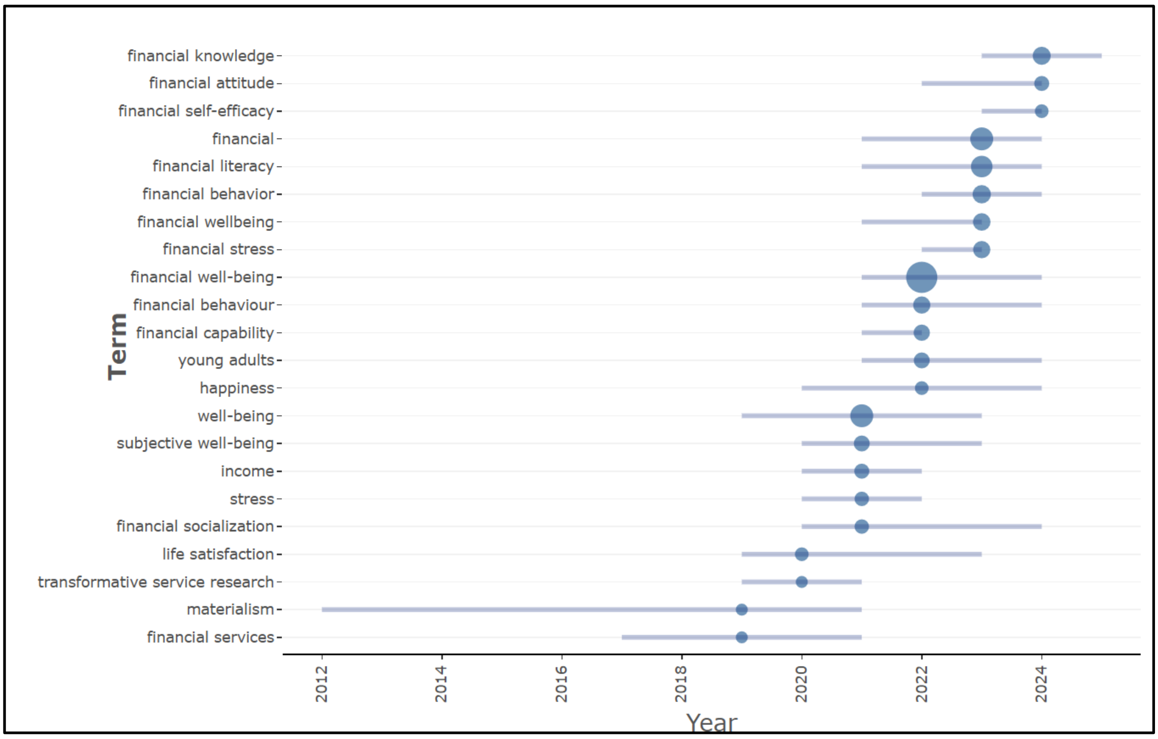
The upper right quadrant, characterized by blue nodes, features core pillars of the field, notably *income*, *wealth*, *mental health*, and *predictors*, which are central to the operationalization of financial well-being and heavily cited in mainstream literature (Brüggen et al., 2017; Netemeyer et al., 2018; Sorgente & Lanz, 2019). The lower right quadrant, defined by green nodes, highlights relational and contextual themes such as *family*, *support*, *transition*, and *life satisfaction*—topics that have seen heightened attention in post-pandemic discourses (Kempson & Poppe, 2018; J. J. Xiao & Porto, 2017).

Together, the factorial map not only illustrates thematic clustering but also reveals conceptual gaps and opportunities, offering a multidimensional view of how financial well-being research has evolved and where it may be headed next.

3.2.5 *Temporal Keyword Evolution*

The temporal analysis reveals a shift in the dominant themes of financial well-being research over time. Between 2012 and 2016, terms such as financial services and materialism were more prevalent, indicating a focus on consumption, service access, and economic framing. This aligns with earlier conceptualizations of well-being rooted in wealth accumulation and spending behavior (Cannon et al., 2024; Chetty et al., 2022; Diener & Seligman, 2004; Easterlin, 1974a; Gough, 2001; Van Boven et al., 2017).

Fig20. Trending topics and their frequency related to financial well-being from 2000-2025.



Source: Authors' own compilation using Bibliometrix-Biblioshiny.

Starting around 2018, there is a visible diversification in keyword usage. Emerging terms include self-efficacy, financial stress, financial attitude, financial capability, and subjective well-being. These keywords suggest a growing interest in the psychological and behavioral antecedents of financial well-being. Their emergence also reflects increasing awareness of the limitations of purely economic or knowledge-based models in explaining real-world financial outcomes (Brüggen et al., 2017; Netemeyer et al., 2018; Xiao & O'Neill, 2014).

Long-standing terms like financial literacy, financial behavior, and financial knowledge maintain high relevance but are now increasingly studied alongside psychological variables such as locus of control and financial self-efficacy. This transition marks a paradigmatic evolution from a structural or instructional paradigm toward one that incorporates cognitive and affective constructs (Atkinson & Messy, 2012; Lusardi & Mitchell, 2014; OECD, 2023).

Other emerging but non-prominent trending topics, as inferred from the Tree of Science, include: Gen Z and future wealth, financial technology and financial wellbeing, student loans and financial stress, the role of financial intelligence in enhancing financial well-being, blockchain-enabled banking services and customers' perceived financial well-being, as well as various themes related to financial inequalities (Ali et al., 2024; Balatif et al., 2024; Farah et al., 2023; Gutter, 2011; Investopedia, 2025; Miecinskiene et al., 2023; Negi et al., 2025).

3.2.6 *Strategic diagram of the of the conceptual structure (Cluster Thematic Map).*

A thematic mapping of the financial well-being (FWB) literature identifies seven key clusters, each reflecting a central area of academic inquiry.

Cluster 1: Financial Well-Being Antecedents focuses on individual-level factors such as financial literacy, behavior, education, attitudes, capability, and self-efficacy. This cluster is supported by foundational studies including Lusardi & Mitchell, (2011), (S. Agnew & Harrison, (2015), Demirgüç-Kunt & Klapper, (2013). Strategically, it holds a semi-central position with high potential for development. Factorial analysis reveals outliers such as "literacy" and "college students," indicating under-researched areas among younger populations.

Cluster 2: Subjective Well-Being and Financial Outcomes explores the link between financial conditions (e.g., income, debt, money) and emotional outcomes like happiness, life satisfaction, and health. This area is supported by Rijken & Groenewegen, (2008) , Martos & Kopp, (2012) and Elliott & Lewis, (2015). Strategically, "happiness" is a basic theme, while "money" remains emerging due to lower conceptual integration on the factorial map.

Cluster 3: Socioeconomic Impact examines the effects of stressors such as unemployment, work transitions, and family support on FWB. Central terms include stress, work, support, and family. Academic contributions include Buchler et al. (2009), Åslund et al., (2014) and Coley & Lombardi, (2014). "Stress" emerges as a motor theme with high density, while "family" and "support" remain peripheral.

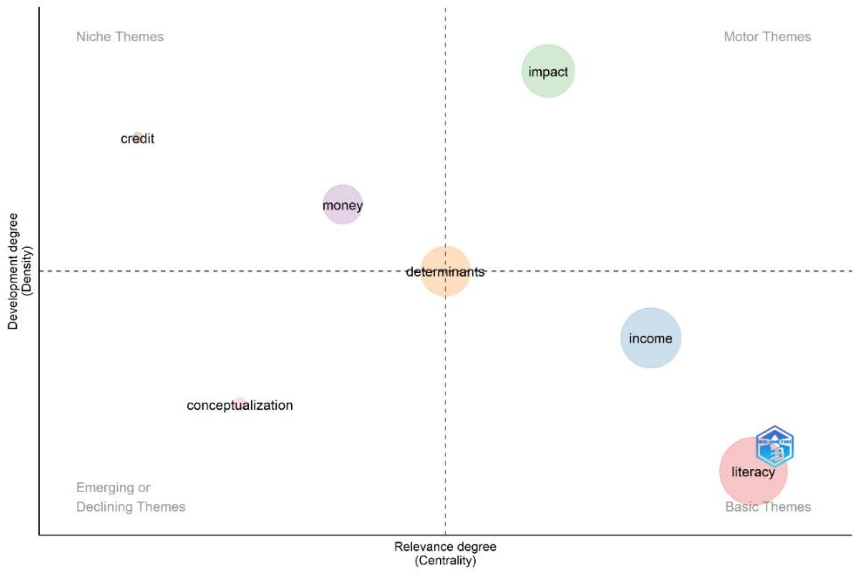
Cluster 4: Poverty and Financial Vulnerability addresses economic hardship, inequality, and limited access to resources. Supported by Draughn et al., (1994), (Parish & Cloud, (2006), and Heintz-Martin & Langmeyer (2020), this cluster is dense but isolated, with thematic links to depression and caregiving—highlighting the psychological effects of material deprivation.

Cluster 5: Demographic and Structural Variables emphasizes the role of age, gender, and life stages (e.g., children, older adults) in financial outcomes. Key studies include (Madero-Cabib & Fasang, 2016) and (Downward et al., 2020). This cluster plays a bridging role, with "age" and "gender" centrally positioned in the factorial map.

Cluster 6: Financial Systems and Institutional Contexts focuses on external structures such as credit card debt, financial services, and social norms. It is supported by (Van Knippenberg, 2000) and Bray, (2001) and is considered a niche or emerging area. "Financial socialization," located at the cluster border, offers promising directions for youth and cultural research.

Cluster 7: Measurement Tools and Theoretical Constructs includes terms like scale, model, predictors, and validity, emphasizing methodological frameworks for assessing FWB. This cluster is grounded in studies by Cobo et al. (2012) and Aparicio et al., (2019) forming the structural core for empirical testing and cross-study comparison. Together, these clusters provide a multidimensional framework for understanding financial well-being and highlight both well-established themes and areas requiring further exploration.

Fig. *21* Thematic map.



Source: Authors' own compilation using Bibliometrix-Biblioshiny:

3.3 Bibliometric Synthesis

This section presents a comprehensive thematic mapping of the financial well-being literature by integrating keyword co-occurrence networks, strategic diagrams, multidimensional factorial analysis, and thematic evolution trends. Based on a co-occurrence network analysis using VOSviewer, seven major research themes were identified, reflecting the multidimensional nature of the field.

At the core of the literature are individual-level antecedents such as financial literacy, education, behavior, attitudes, capability, and self-efficacy. These competencies are consistently emphasized in foundational research as critical enablers of sound financial decision-making (Lusardi & Mitchell, 2011; Demirgüç-Kunt & Klapper, 2013; S. Agnew & Harrison, 2015). While central in the thematic structure, behavioral dynamics among specific groups—particularly students and young adults—remain underexplored, despite their vulnerability and transitional life stage.

A substantial body of work links financial status—income, money, debt—with subjective well-being outcomes like happiness, health, and life satisfaction (Rijken & Groenewegen, 2008; Martos & Kopp, 2012; Elliott & Lewis, 2015). Despite high centrality, some themes, especially "money," exhibit low internal density, indicating weak conceptual integration.

Socioeconomic stressors, including unemployment, work transitions, and family support systems, influence both mental health and financial well-being (Buchler et al., 2009; Åslund et al., 2014;; Coley & Lombardi, 2014). Stress, in particular, emerges as a conceptually mature theme. Research on poverty and inequality reveals dense internal coherence but remains somewhat isolated from the broader discourse (Draughn et al., 1994; Heintz-Martin & Langmeyer, 2020).

Demographic variables such as age, gender, and life stage function as moderating factors and help bridge thematic areas (Madero-Cabib & Fasang, 2016; Downward et al., 2020). Increasing attention is also paid to vulnerable subgroups like older adults, children, and university students, whose financial well-being is shaped by both structural and psychological dimensions.

Other studies explore systemic and institutional influences—including financial services, credit practices, and corporate responsibility—which remain underrepresented but show growing relevance (Bray, 2001; Van Knippenberg, 2000). A substantial portion of the literature also focuses on measurement and theory-building, particularly the development of FWB scales and models (Cobo et al., 2012; Aparicio et al., 2019). However, many tools lack psychometric rigor or cultural adaptation (Prawitz et al., 2006; Shim, Barber, et al., 2009; Netemeyer et al., 2018), limiting cross-context comparability.

Recent thematic evolution trends show a clear shift from macroeconomic and institutional concerns toward more individual-centric constructs such as financial stress, capability, and self-efficacy (Brüggen et al., 2017; Rodríguez-Soler et al., 2020; Mahendru et al., 2022). Despite ongoing progress, the research agenda proposed by Brüggen et al. (2017) remains essential, particularly in addressing conceptual clarity and the role of personal drivers in financial well-being.

Section 02: Financial well-being and it's determinants.

This section presents a more in-depth systematic literature review (qualitative insights). Building upon key determinants identified through bibliometric analysis, current information is synthesized.

1. Financial Well-Being

Supported by the findings of bibliometric analysis, it is evident that financial well-being is a topic of growing interest across several domains, including economics, financial planning and consulting, psychology, and consumer decision-making. However, there is still no universally accepted definition or measurement of this construct, which further highlights its multidimensional nature (Brüggen et al., 2017b; Sorgente & Lanz, 2017) Previous studies have conceptualized financial well-being in various ways. Porter & Garman, (1993) defined it as a state of complete happiness. Thus, financial well-being has been equated with terms such as financial wellness, economic well-being, income satisfaction, financial security, and financial health (Ghazali et al., 2020). One of the first empirical studies to analyze the relationship between happiness and income was conducted by Easterlin, (1974), who observed that, across different countries, individuals with higher incomes reported significantly greater happiness than those with lower incomes. Some other studies incorporate financial well-being as a variable of interest but fail to provide a clear definition (C. Guo et al., 2013; Netemeyer et al., 2018; O'Neill et al., 2005; Prawitz et al., 2006; Shim, Xiao, et al., 2009).

The following table presents a selection of definitions from key sources, offering a comprehensive view of how financial well-being is understood across various disciplines and research contexts.

Table 7. Summary table of definitions used in primary research.

Examples of definitions used in primary research (in chronological order of publication)	Source
"Financial well-being refers to a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow enjoyment of life. »	(CFPB, 2015)
« Financial health comes about when your daily financial systems allow you to be resilient and pursue opportunities over time."	(Parker et al., 2016)
"Financial well-being refers to the extent to which someone is able to meet all their current commitments and needs comfortably, and has the financial resilience to maintain this in the future".	(Kempson et al., 2017)
"Financial well-being is the perception of being able to sustain current and anticipated desired living standards and financial freedom."	(Brüggen et al., 2017)
"Financial well-being is when a person is able to meet expenses and has some money left over, is in control of their finances and feels financially secure, now and in the future."	(Muir et al., 2017)
"Financial health is achieved when an individual's daily systems help build the financial resilience to weather shocks, and the ability to pursue financial goals."	(Ladha et al., 2017)

"Financial well-being is the extent to which people both perceive and have: 1. financial outcomes in which they meet their financial obligations, 2. financial freedom to make choices that allow them to enjoy life, 3. control of their finances, and 4. financial security, now, in the future, and under possible adverse circumstances."	(Comerton-Forde et al., 2018)
The perceived level of stress and satisfaction related to the financial situation and the perceived ability to meet the financial requirements to cover the planned and unexpected financial demands in the future.	(Losada-Otàlora and al.,2019)
When a person is able to meet expenses and has some money left over, is in control of their finances, and feels financially secure, now and in the future.	(Salignac et al.,2020)
"Financial well-being is a positive psychological state characterized by a sense of contentment about one's personal financial situation and by a positive perception of one's financial situation as able to actively meet one's current needs and future aspirations."	(Aubrey et al., 2022)
Examples of definitions developed by international organisations	
"Financial health or wellbeing refers to the extent to which a person or family can smoothly manage their current financial obligations and have confidence in their financial future."	(UNSGSA, 2021c)
"Financial health is a state in which an individual can meet current needs, absorb financial shocks, and pursue financial goals. Financially healthy individuals also feel secure about their finances."	(UNCDF, 2022)
"Financial Well Being with a gender lens should address four key components of women's agency – capability, confidence, choice and control. 1. Capability to make informed financial decisions; 2. Confidence in her ability to manage income and household assets; 3. Choice of financial services and how she participates in household financial decisions; and 4. Control over income and assets and over her financial goals and future."	(WWB, 2024)

Source: Adapted from G20 POLICY NOTE ON FINANCIAL WELL-BEING, OECD 2024.

In a study analyzed by Kempson et al., (2017), based on World Bank data, financial well-being was described as an objective measure, where it refers to the ability to meet all needs efficiently and contentedly, while also maintaining the financial flexibility to sustain this ability in the future. Several researchers have suggested that income, expenditure, assets, and financial status serve as key objective indicators of financial well-being (Fergusson et al., 2011; Sabri & Falahati, 2012, 2012). Furthermore, financial well-being was measured using income, financial information, financial indices in the literature (Greninger et al., 1996; S.-H. Joo & Grable, 2004; Kahneman & Deaton, 2010) and liquidity (Aggarwal, 2014) as proxies. (S.-H. Joo & Grable, 2004).

Conversely, some scholars argue that financial well-being should be viewed as a subjective measure (Strömbäck et al., 2017; Taft et al., 2013). Prawitz et al., (2006) proposed that financial well-being can be understood as an individual's perception of their financial situation at a given point in time. In line with this, Norvilitis & Mendes-Da-Silva, (2013) suggested that individuals' financial attitudes and self-perceptions regarding their financial capabilities significantly contribute to their sense of well-being. Furthermore, S.-H. Joo & Grable, (2004) emphasized that financial satisfaction, defined as an individual's contentment with their financial condition, is a key component of subjective financial well-being. Similarly, Baker et al., (2016) found that psychological factors, including perceived financial control and financial anxiety, play a critical role in shaping individuals' financial well-being.

Accordingly, financial well-being is an essential concern for individuals, societies, and countries alike. Generally, well-being encompasses a broad range of aspects that contribute to overall quality of life, such as income levels, job security, housing, living standards, healthcare access, education, environmental quality, and social relationships. Financial well-being is one of the sub-domains of subjective well-being, which specifically focuses on whether individuals feel content and satisfied with their financial state. This satisfaction can be linked to a sense of security, having enough to meet one's needs, or achieving a desired standard of living (Chatterjee et al., 2019).

Table 8. Terms used interchangeably with financial well-being.

Term	*Definition*	Source(s)
Financial Wellness	*A state of being where an individual has control over day-to-day finances, can absorb financial shocks, is on track to meet financial goals, and has the financial freedom to make choices that allow enjoyment of life.*	(CFPB, 2017)
Financial Health	*The extent to which an individual's financial systems support resilience to economic changes and the ability to achieve financial goals.*	(Fu, 2020)
Economic Well-Being	*A broader term encompassing financial stability, income adequacy, and the ability to meet basic needs and pursue opportunities.*	(Council on Social Work Education, 2017)
Financial Satisfaction	*The subjective evaluation of one's financial situation, reflecting contentment with current financial status.*	(J. J. Xiao & Porto, 2017)
Income Satisfaction	*Contentment with one's income level, considering both absolute income and relative comparisons.*	(Sorgente & Lanz, 2017)
Financial Security	*The feeling of confidence in one's ability to meet financial obligations and withstand financial shocks.*	(Ghazali et al., 2020)
Financial Resilience	*The capacity to recover from financial setbacks, adapt to changing circumstances, and maintain financial stability.*	(J. J. Xiao, 2025)
Financial Capability	*The combination of knowledge, skills, attitudes, and behaviors necessary to make sound financial decisions and achieve financial well-being.*	(J. Xiao & Porto, 2022)

Source: Authors' own compilation (2025).

These terms are often used interchangeably in academic literature, though some may emphasize different aspects of financial well-being. For instance, financial wellness and financial health often focus on overall financial status and behaviors, while financial satisfaction and income satisfaction pertain more to subjective perceptions.

The table titled "*The Interdisciplinarity of Financial Well-Being*" highlights the multidimensional and cross-sectoral nature of financial well-being by examining how it is conceptualized across six academic disciplines. Each discipline provides a distinct yet complementary lens. Economics focuses on income adequacy and job stability as foundational components (Lusardi & Mitchell, 2014), while psychology explores the behavioral and emotional dimensions that shape financial decision-making and stress (Shim, Barber, et al., 2009). Sociology expands the view to structural inequality and social capital, showing how systemic factors influence financial outcomes(Despard et al., 2015).

Public health brings attention to the bidirectional relationship between financial distress and health disparities, emphasizing financial well-being as a social determinant of health (Sweet et al., 2013). Management contributes a workplace-oriented perspective, linking financial planning and literacy to employee satisfaction and performance (J. J. Xiao & O'Neill, 2014). Finally, education assesses the effectiveness of financial education programs in shaping long-term behaviors and promoting capability (Fernandes et al., 2014). Taken together, these perspectives underscore the inherently interdisciplinary character of financial well-being and affirm the need for integrated, collaborative approaches across research, policy, and practice domains to fully understand and support it.

Table 9. The Interdisciplinarity of Financial Well-Being.

Discipline	*Focus Area*	*Key Questions*	*Citation*
Economics	Income Adequacy & Stability	How does income level and job security influence an individual's financial well-being?	(Lusardi & Mitchell, 2014)
Psychology	Financial Stress & Behavior	What psychological factors affect financial decision-making and perceived financial well-being?	(Shim, Barber, et al., 2009)
Sociology	Social Impact & Inequality	How do social structures and inequality affect financial well-being across different populations?	(Despard et al., 2015)
Public Health	Health & Economic Security	What is the relationship between financial well-being and physical/mental health outcomes?	(Sweet et al., 2013)
Management	Financial Literacy & Planning	How do financial literacy and planning influence employees' financial well-being and productivity?	(J. J. Xiao & O'Neill, 2014)
Education	Financial Education Outcomes	How effective are financial education programs in promoting long-term financial well-being?	(Fernandes et al., 2014)

Source: Authors' own compilation (2025).

2. Determinants of financial well-being

This sub-section highlights the most influential studies that have shaped current understanding of financial well-being determinants. These works define and examine the key factors—such as financial literacy, behavior, psychological traits, and external conditions—that contribute to individuals' financial outcomes. The reviewed studies represent some of the most significant contributions to the contemporary literature on financial well-being, offering diverse methodological approaches and cross-cultural perspectives. While cross-sectional survey designs remain predominant—enabling broad population-level insights (e.g., Collins & Urban, 2020; Fan & Henager, 2021) the increasing use of structural equation modeling (e.g., Rahman et al., 2021) reflects a shift toward exploring mediating pathways and complex interdependencies among key determinants.

Geographically, the body of work spans high-income countries and emerging economies (e.g., Malaysia, India, Estonia), underscoring the global relevance of financial well-being research. This diversity also necessitates localized instrument adaptation and validation, as shown in Aubrey et al., (2022) and Mahdzan et al., (2019), the latter highlighting the moderating role of digital financial services in low-income Malaysian households.

The CFPB Financial Well-Being Scale appears as a dominant tool across studies, often complemented by validated measures of financial stress (Grable et al , 2011), financial behavior (Joo & Grable, 2004), financial literacy (Sabri et al., 2010), and psychological constructs such as locus of control (Perry & Morris, 2005). These multidimensional measurement strategies capture the cognitive, behavioral, and emotional dimensions of financial well-being.

Conceptually, financial literacy and behavior emerge consistently as robust predictors of well-being, while emerging variables—such as self-confidence, perceived capability, and financial risk tolerance—are increasingly recognized for their explanatory power, especially among older or economically vulnerable populations (e.g., Coats & Bajtelsmit, 2024; Kachan Sehrawat et al., 2021).

In sum, these studies represent the most pertinent and methodologically rigorous examinations of financial well-being to date. Future research should prioritize longitudinal designs, comparative cross-national analyses, and inclusion of marginalized or underrepresented populations to further strengthen the field's theoretical and practical contributions.

Table 10. Characteristics table of the most relevant studies.

Study	*Year*	*Design*	*Population / Sample*	*Measurement Tool*	*Key Concepts*	*Main Findings*
Mahfuzur Rahman et al.	2017	Empirical study using PLS-SEM	412 low-income (B40) individuals in Malaysia	8-item Prawitz financial well-being scale, 6-item Grable financial stress scale, 10-item Sabri financial literacy scale	Financial well-being, financial literacy, stress	Financial literacy and stress are significant predictors of financial well-being; validated scales for the Malaysian low-income context.
Collins & Urban	2019	Cross-sectional; secondary data	U.S. (large public dataset)	Standardized financial well-being score	Wealth, investment, behavior	Financial well-being is positively associated with income, wealth, investment participation, and financial behaviors.
Riitsalu & Murakas	2019	Cross-sectional survey	Estonian population	4-item subjective financial well-being scale (5-point Likert)	Financial knowledge, income, perceived ability	Subjective financial knowledge, income, and financial behavior significantly influence financial well-being.
Nurul Shahnaz Mahdzan	2019	Empirical study and literature review	1,867 Malaysian households	9-item Prawitz financial well-being scale, Grable et al. (2011) for financial stress, Joo & Grable (2004) for financial behavior, Sabri et al. (2010) for financial knowledge, Perry & Morris (2005) for internal locus of control	Financial literacy, stress, financial behavior, locus of control, digital financial services	Financial behavior, literacy, stress, and internal locus of control significantly influence subjective financial well-being; digital financial services usage moderates these effects among low-income Malaysians.
Lu Fan & Henager	2021	Cross-sectional survey	16,725 U.S. adults	CFPB abbreviated financial well-being scale	Financial satisfaction, stress, behavior	Financial satisfaction, perceived capability, and short-term behavior positively affect well-being; financial stress and long-term behavior negatively affect well-being. SEM confirmed model validity.
Kachan Sehrawat et al.	2021	Empirical study using PLS-SEM	349 respondents in India	Adapted financial well-being scales (perceived and objective), Sabri financial literacy scale, personality trait measures	Financial literacy, behavior, personality, subjective and objective well-being	Identified key pathways through which financial literacy, behavior, and personality traits influence both perceived and objective financial well-being.
Aubrey et al.	2022	Validation study	454 participants from Quebec, Canada	Multidimensional Subjective Financial Well-Being Scale (MSFWBS)	Validity, scale development	Supported bifactor-ESEM structure; confirmed measurement invariance and convergent validity for the MSFWBS.
Lacombe & Khatun	2022	Secondary data analysis	U.S. national dataset (2016 FWB Survey)	Not clearly reported	Determinants of financial well-being	Identified 26 significant covariates out of 144 potential determinants of financial well-being.
Versal et al.	2023	Secondary data analysis	22 countries (12 EU, 10 non-EU)	OECD/INFE methodology	Savings behavior, regional comparison	Savings significantly predict subjective financial well-being in non-EU countries and overall, but not specifically in EU countries.
Coats & Bajtelsmit	2024	Cross-sectional survey	Older adults and near-retirees	CFPB financial well-being scale and alternative tools	Risk preferences, self-confidence, discounting	Discount rates, financial risk preferences, and self-confidence consistently predict financial well-being in older populations.
Khashadourian & Harrison	2024	Validation study	Limited sample detail available	CFPB financial well-being scale and household ratios	Household financial well-being	Developed a typology of financial well-being aligned with the CFPB scale for family-level assessment.
Heck et al.	2025	Methodological study	5,768 U.S. adults (mean age 53)	5-item and 10-item financial well-being scales	Measurement accuracy, income, wealth	The 5-item scale may underestimate well-being in low-income populations; caution advised for diverse income groups.

Source: Authors' own compilation. (2025).

2.1 Financial behavior

Financial behavior stands out as one of the most influential determinants of financial well-being, exerting its impact either directly or indirectly through mediating variables. For instance, studies by Houmanfar et al., (2015) and Zyphur et al., (2015) confirm that individuals' financial behaviors—such as budgeting, spending control, and goal-oriented saving—can directly influence their overall financial well-being. Meanwhile, other scholars have highlighted that this relationship is often mediated by factors like financial management and education. Donnelly et al., (2012) and Postmus et al., (2015) propose that these elements play a crucial intermediary role in enhancing financial outcomes.

Financial well-being is also shaped by broader constructs like financial happiness and social capital. (Ng & Diener, (2014) found that financial happiness significantly contributes to life satisfaction, largely through the mediating effect of social capital—a claim further supported by Lane (2017). From a psychosocial perspective, Haslam et al., (2009) assert that belonging to social groups provides individuals with meaning, purpose, and connection, which positively influences both mental health and financial well-being.

In a related line of research, Ponchio et al., (2019) demonstrate how engagement in wealth management activities contributes to financial well-being. Similarly, Collins & Urban, (2020) examine how financial behavior—particularly investment decision-making—shapes individuals' financial security. Mahdzan et al., (2019) go further by linking financial well-being to one's internal locus of control, indicating that individuals who feel more in control of their financial decisions tend to experience better outcomes. Martin & Hill, (2015) emphasize the transformative role of saving ability, suggesting that the capacity to save is a strong predictor of higher well-being.

On a more conceptual level, Brüggen et al., (2017) propose a philosophical framework to define and organize the core components of financial well-being. Within this model, economic context and personal financial behavior jointly determine a person's perceived and actual financial independence, quality of life, and ability to meet desired living standards.

Therefore, this study hypothesizes:

H_1: Financial behavior has a positive effect on financial well-being.
H_{10}: Financial behavior mediates the relationship between financial Knowledge and financial well-being.
H_{11}: Financial behavior mediates the relationship between financial stress and financial well-being.
H_{12}: Financial knowledge, financial stress, and financial behavior mediate the relationship between income level and financial well-being.

2.2 Financial knowledge and personality traits

Financial education plays a crucial role in shaping financial well-being, either directly (Annink et al., 2016; Drever et al., 2015) or indirectly through mediating pathways (Painter, 2013). Key socio-economic factors such as access to social welfare (Annink et al., 2016), mental health conditions (Elbogen et al., 2012), Medicaid participation (Hu et al., 2018), and levels of financial literacy (Schmeiser & Seligman, 2013) have all been shown to directly influence financial well-being. Furthermore, life transitions—such as widowhood—can impact financial well-being through one's financial education and knowledge base (O'Bryant & Morgan, 1989).

Programs aimed at enhancing financial literacy have been linked to improved financial outcomes and well-being (Hageman et al., 2019). Financial literacy and financial intelligence, as discussed by Limbu and Sato (2019), Mahendru (2020), and Riitsalu & Murakas (2019), influence well-being primarily through the channel of financial behavior. Likewise, individual personality traits are increasingly recognized as significant contributors to financial well-being. Characteristics such as one's money mindset (Utkarsh et al., 2020), self-oriented thinking (Gardarsdóttir et al., 2009), exploratory behavior (Singh et al., 2015), and self-confidence (Braun Santos et al., 2016) all play a role.

Lindström & Giordano (2016), in their analysis of generalized trust as a personality trait before and after the 2008 recession, observed notable declines in financial well-being, underlining how personality and macroeconomic shocks intersect. Additionally, individuals' attitudes toward financial practices significantly shape financial behaviors, which in turn influence their financial well-being (Shim, Barber, et al., 2009; Rea et al., 2019; Castro-González et al., 2020).

People with high levels of financial well-being often report a peaceful relationship with their finances. They are more likely to make value-driven investment choices, showing greater emotional intelligence and social responsibility. Research by Åslund et al., (2014) and Mende & van Doorn, (2015) suggests that financial stress mediates the relationship between financial behavior and engagement with financial services. Åslund et al., (2014) also highlight that insufficient social support—linked to poor financial socialization—negatively affects financial well-being.

Conversely, financial distress has been found to be directly correlated with diminished financial well-being Niedzwiedz et al., (2015). Parental financial socialization, meanwhile, plays a foundational role in cultivating financial literacy and sustainable financial habits, which collectively enhance financial security and well-being Cwynar et al., (2019). The literature increasingly views financial socialization not only as a predictor of financial well-being but also as a consequence and a mediator.

For instance, Kirkpatrick Johnson, (2013) demonstrates that financial well-being can influence family dynamics, positioning financial socialization as an outcome. Similarly, Guo et al., (2013) show that customer socialization enhances co-production in service settings, which contributes to financial well-being. Research by Losada-Otálora & Alkire, (2019) and Cwynar et al., (2019) further supports the idea that financial socialization impacts financial outcomes through both educational and behavioral pathways. Chu et al.

(2017) and Mathews & Volberg (2013) extend this understanding by highlighting how financial literacy and behavior—particularly in contexts such as gambling—affect financial well-being via financial socialization.

Fletcher-Brown et al. (2020) bring in a unique perspective by emphasizing the transformative role of brands in building emotional and social resources through corporate social media engagement with financially vulnerable consumers.

High financial knowledge improves decision-making by offering individuals a clearer understanding of the options available to them. It enhances confidence, encourages cautious behavior, and supports long-term financial health. On the other hand, personality traits such as calmness and emotional balance also contribute meaningfully to a person's financial well-being (Braun Santos et al., 2016). These attributes, when combined with financial expertise, form the foundation of financial well-being and should be explored through a broader, more integrated lens.

Therefore, this study hypothesizes:

H_2: Financial knowledge has a positive effect on financial well-being.
H_4: Financial knowledge has a positive effect on financial behavior.
H_6: Financial knowledge has a negative effect on financial stress.

2.3 Financial stress

Financial stress can be understood as the difficulty in managing financial responsibilities due to insufficient funds. It manifests as an unpleasant feeling of being unable to meet financial needs, manage living requirements, or have adequate finances to make ends meet. While Davis and Mantler (2004) describe general stress as involving fear, distress, and anger, it's important to note that financial stress is distinct from financial distress Kim et al., (2003). Financial stress relates to significant inadequacies in meeting individual financial needs, whereas financial distress can be seen as the opposite of financial well-being.

Primarily, financial stress arises from a lack of funds due to personal or family circumstances, or unexpected financial shocks (Dew & Xiao, 2011; Norvilitis & Mendes-Da-Silva, 2013). Among university students, financial stress is particularly prevalent due to limited or unstable income, academic-related expenses, and often a lack of financial management experience (Serido et al., 2014). An increase in financial stress, such as rising debt or financial shortages, can intensify financial distress (Sweet et al., 2013), consequently lowering financial well-being. This is a key concern for marginalized communities who often lack sufficient finances, leading to financial constraints and economic hardship. For students from low-income backgrounds, these stressors are often exacerbated by educational costs, housing instability, and a growing reliance on credit (Grable & Joo, 2006). Indeed, Steen and MacKenzie (2013) link financial stress to increased hopelessness and negative impacts on an individual's physical and psychological health.

Similarly, financial stress is associated with adverse outcomes like lower job performance (Joo & Grable, 2004; Kim & Garman, 2004; O'Neill et al., 2005) and diminished overall well-being, including health (Bridges & Disney, 2010; Peirce et al., 1996). For instance, Bialik (2018) reported that 45% of employees facing financial challenges experienced greater stress across their lives, jobs, health, or relationships.

Regarding financial well-being, Netemeyer et al., (2018) found it had a small negative partial impact on perceived future financial security and no effect on money management stress. However, other studies suggest financial well-being is directly and positively influenced by various factors (Joo, 2008; Mahdzan et al., 2023), with Xiao et al. (2009) noting subjective financial well-being's positive contribution. Kaur et al. (2022) even argue that financial well-being is a vital life component for achieving overall personal stability. In contrast to the benefits of well-being, financial stress negatively impacts job performance (Kim & Garman, 2004; O'Neill et al., 2005) and overall well-being. In academic settings, prolonged financial stress among students may also impair academic performance, increase dropout risk, and reduce engagement with university life (Robb et al., 2012).

Financial behavior, on the other hand, is generally found to positively affect financial well-being (Perry & Morris, 2005). Effective financial behaviors are associated with better financial management techniques (Xiao et al., 2007) and greater financial satisfaction (Hira & Mugenda, 1999). For students, developing positive financial behaviors early in life is crucial, as it builds resilience against financial stress and supports long-term financial health (Shim et al., 2009).

Considering these relationships—particularly how increased financial stress can worsen overall well-being and lower financial well-being (Sweet et al., 2013)—this study proposes the following hypothesis:

H_3: Financial stress has a negative effect on financial well-being.
H_5: Financial stress has a negative effect on financial behavior.

2.4 Socio-economic environment

Financial well-being has increasingly gained scholarly attention, largely in response to growing global economic uncertainty that affects individuals at both structural and personal levels. The 2008 global financial crisis, for instance, intensified financial stress and uncertainty, prompting a surge in research exploring how individuals—especially students—navigate financial challenges (Sorgente & Lanz, 2017; Mohseni-Cheraghlou, 2016). Deaton (2012) observes that this post-crisis period, the Great Recession, placed greater financial strain on households, with mounting debt and unsustainable mortgage burdens becoming widespread (Sharma et al., 2021).

Students, particularly those in higher education, were significantly impacted. Many experienced heightened financial uncertainties, often due to reduced family support, job losses, and rising tuition, leaving them financially vulnerable during a critical life stage. As financially dependent or semi-independent individuals, students often find themselves in a structurally precarious position—exposed to rising costs and income insecurity, while simultaneously lacking the financial literacy or institutional support necessary to cope effectively (Shim et al., 2009; Salignac et al., 2020).

Importantly, both age and gender play critical roles in shaping financial well-being. Emerging adulthood—a life stage typically defined between ages 18 and 25—is marked by increasing responsibilities and the pursuit of financial autonomy, yet individuals often struggle to balance this with limited experience, making them particularly susceptible to financial stress (Arnett, 2000; Norvilitis et al., 2006). Simultaneously, gender disparities are prominent: female students consistently report lower financial well-being than their male peers, even when controlling for income and education, often due to systemic income gaps, greater caregiving expectations, and reduced access to financial education or gendered financial socialization (Fonseca et al., 2012; Xiao et al., 2014; Allen et al., 2019). These disparities can be compounded by intersecting factors influencing financial autonomy.

Debt and materialism further complicate student finances. As Gardarsdóttir and Dittmar (2012) suggest, debt is closely tied to materialistic values; individuals prioritizing material possessions often face greater financial strain. This is particularly relevant for students, who may accumulate debt to meet lifestyle expectations or cover basic needs, frequently influenced by consumer pressure and marketing. Interestingly, La Barbera and Gürhan (1997) found some positive links between materialism and well-being for those with low religiosity, yet excessive materialism can also lead to internal value conflicts (Furchheim et al., 2020; Richins & Dawson, 1992).

Recent studies suggest that financial well-being is also tied to broader psychological and lifestyle factors. Life satisfaction, self-efficacy, and voluntary simplicity all mediate financial experiences (Kuanr et al., 2020). Moldes and Ku (2020) emphasized that materialistic cues may affect social well-being, while Sirgy (2018) argues FWB is integral to overall quality of life, linking to domains like work and health. For students, financial concerns frequently interfere with academic performance and long-term planning. In developing countries, where public education systems may offer limited financial support, these stressors are intensified (Sabri et al., 2010).

External economic shocks, such as inflation and unemployment, significantly influence financial well-being and exacerbate financial hardship. Parker et al. (2016) and Rezende Machado de Sousa et al. (2019) observed that economic changes affect financial perceptions. Netemeyer et al. (2018) show FWB influences mental health and social relationships. These conditions particularly affect students from lower-income backgrounds, increasing mental health risks and delaying academic progress. The intersection of economic shocks and gender further reveals young women are often disproportionately affected (ILO, 2020).

Lusardi and Mitchell (2014) underline that financial literacy is shown to improve resilience, especially during downturns. However, many students lack comprehensive financial education. This disparity is more pronounced among disadvantaged students. Especially in developing countries, limited financial infrastructure and low parental financial literacy may hinder youth autonomy (OECD, 2020).

Wealth and income disparities are also key drivers. Arber et al. (2014) and Martos & Kopp (2012) found FWB acts as a channel for wealth's influence on subjective well-being. Macroeconomic trends shape financial security perceptions (Lee et al., 2015; Franko, 2020). Among students, these inequalities manifest in varied financial access and opportunity, potentially impacting long-term outcomes (Shim et al., 2009).

Social background and financial socialization significantly shape student financial behaviors and outcomes. Family attitudes toward money, peer influences, or work environments have lasting impacts (Danzer & Dietz, 2018; Heintz-Martin & Langmeyer, 2020; Kim & Chatterjee, 2013). Family financial culture and early financial habits can either buffer or intensify stress for university students, with gender again moderating these effects, as young women may report less confidence despite comparable budgeting behaviors (Charles et al., 2019; Downward et al., 2020; Wilkinson, 2017; Piumatti, 2017; Robb & Woodyard, 2011).

In light of this, the socio-economic context is crucial. Access to scholarships, affordable housing, and job opportunities is critical to building financial autonomy and reducing vulnerability for students. Social support, quality education, and equitable labor markets are essential. In developing contexts like Algeria, structural inequalities, limited support systems, and persistent gender gaps heighten the need for targeted interventions. Understanding how students experience financial well-being—and how factors like age, gender, and income interact—can help shape more inclusive financial education and support policies.

Given the role of socio-economic factors in shaping financial outcomes, it is plausible that these variables influence financial well-being both directly and indirectly.

Therefore, this study hypothesizes:

H_7: Income level has a positive effect on financial knowledge.
H_8: Income level has a negative effect on with financial stress.
H_9: Income level has a positive effect with financial well-being.
H_{13}: Education Level has a significant moderating effect on financial well-being.
H_{14}: Income stability has a significant moderating effect on financial well-being.
H_{15}: Housing status has a significant moderating effect on financial well-being.

3. Consequences of financial well-being

Given the broad scope and significance of its consequences, financial well-being warrants careful attention and active management across multiple levels: individual, collective, organizational, and societal. At the individual and group levels, financial well-being has been positively linked to enhanced quality of life, personal success, happiness, general well-being, mental health, and relationship satisfaction (Dunn & Mirzaie, 2012; Hubler et al., 2016). Conversely, financial instability or distress can negatively impact these domains. For instance, Downing (2016) found that financial distress related to foreclosure or the threat of foreclosure was associated with adverse psychological and behavioral outcomes, including heightened anxiety, increased aggression, and deteriorating health.

At the organizational level, promoting the financial well-being of both employees and customers is increasingly recognized as a component of corporate social responsibility (CSR). Initiatives that support financial health not only contribute to broader societal welfare but also enhance organizational reputation and stakeholder trust (Arendt & Brettel, 2010; Pivato et al., 2008; Vlachos et al., 2009). These reputational benefits have been empirically linked to improved profitability (Cochran & Wood, 1984; García de Leaniz & Rodríguez Del Bosque Rodríguez, 2015).

Financial well-being also carries significant societal implications (Cochran & Wood, 1984; WCED, 1987). When large segments of the population experience financial hardship simultaneously, it can lead to systemic problems such as reduced consumption and increased reliance on social support systems, thereby straining public welfare resources. Conversely, widespread financial well-being promotes higher levels of consumption and reduces dependence on social services, generating positive ripple effects across the economy (Griggs et al., 2013; Sacks et al., 2012).

Furthermore, financial well-being is shaped by a complex and dynamic set of contextual factors. These influences can evolve over time and vary significantly across cultures and national settings. Understanding and addressing the cultural and temporal variability of these determinants is essential for developing effective, context-sensitive policies and interventions.

3.1 The Role and Significance of Individual Financial Well-Being

In an increasingly consumer-oriented and fast-paced global economy, individual financial well-being is not merely a personal concern but a foundational element for long-term economic stability and individual well-being.

3.3.1 *Individual Financial Well-Being at the Individual Level*

From an individual standpoint, individual financial well-being is a fundamental pillar of a fulfilling life and it plays a vital role in enabling people to meet their essential needs, achieve personal aspirations, and maintain an acceptable standard of living. Without a secure financial base, individuals are more likely to face chronic economic stress, live paycheck to paycheck, and lack the capacity to manage emergencies or future financial obligations. This instability often perpetuates a cycle of financial insecurity, which can significantly impair one's psychological health, physical well-being, and overall quality of life (Netemeyer et al., 2018).

3.3.2 *Individual Financial Well-Being and Societal Stability*

On a macroeconomic level, individual financial well-being contributes directly to broader economic resilience and inclusive growth. Financially secure individuals are more likely to engage in consumption, saving, and investment behaviors that stimulate economic activity. These dynamics foster job creation, enhance social mobility, and reinforce the stability of financial systems (Lusardi & Mitchell, 2014). Conversely, widespread financial distress within a population can hinder economic productivity, reduce consumer confidence, and contribute to systemic vulnerabilities.

3.1.1 *Key Benefits of Individual Financial Well-Being*

Several critical benefits underscore the significance of promoting individual financial well-being. A stable financial situation provides individuals with psychological relief and reduces anxiety about unforeseen expenses. This allows for greater focus on personal development, relationships, and career advancement (Shim, Barber, et al., 2009). By engaging in sound financial practices such as regular saving, responsible borrowing, and long-term investment, individuals can build a robust financial future and protect themselves against economic shocks. Financial stress is strongly correlated with adverse mental and physical health outcomes. Effective financial management has been linked to improvements in sleep quality, emotional stability, and perceived life satisfaction (CFPB, 2017). Furthermore, individual financial well-being empowers individuals to pursue life goals more freely—whether launching a business, acquiring property, or seeking advanced education—thereby enhancing their autonomy and life satisfaction.

Recognizing the centrality of individual financial well-being is a critical step toward fostering economic empowerment and personal resilience. When individuals prioritize their financial health and engage in informed financial behaviors, they not only enhance their own well-being but also contribute positively to the broader economic and social fabric. As such, promoting individual financial well-being should be considered a strategic priority at both individual and societal levels.

4. International Financial Well-Being Programs

Financial well-being programs have gained significant attention worldwide as part of broader efforts to enhance individuals' quality of life through improved financial health. These programs aim to empower individuals with the knowledge, skills, and behaviors necessary to achieve financial security, resilience, and freedom of choice.

Global organizations such as the OECD, World Bank, and national regulatory bodies have emphasized the importance of financial well-being, integrating it into national financial education strategies and consumer protection frameworks (CFPB, 2022; OECD, 2023).

4.1 Objectives and Scope

The primary objectives of international financial well-being programs include:

- Improving financial literacy and capability to manage money, credit, and investments effectively.
- Encouraging positive financial behaviors such as budgeting, saving, and responsible borrowing.
- Building financial resilience to withstand economic shocks and emergencies.
- Reducing financial stress and inequality among vulnerable populations.
- Promoting digital financial inclusion by supporting safe use of fintech solutions.

These programs target diverse populations including youth, adults, seniors, low-income groups, and entrepreneurs.

4.2 Prominent International Programs

- **OECD/INFE Financial Well-Being Initiatives**

The OECD International Network on Financial Education (INFE) promotes policies and tools to measure and improve financial well-being globally. Their frameworks encourage governments to adopt well-being metrics as part of national strategies and tailor interventions to demographic groups (OECD, 2023).

- **United States – Consumer Financial Protection Bureau (CFPB)**

The CFPB Financial Well-Being Program focuses on research, measurement, and outreach. The CFPB Financial Well-Being Scale is a validated tool used to assess individuals' perceptions of their financial security and freedom. Programs emphasize education, counseling, and partnerships to foster sustainable financial health (CFPB, 2022).

- **Australia's National Financial Wellbeing Strategy (ANZ)**

Australia's strategy integrates financial education with social services, emphasizing support for vulnerable populations and promoting digital inclusion. The program is informed by ongoing national surveys assessing financial well-being and guides policymaking (ASIC, 2021).

- **United Kingdom – Money and Pensions Service (MaPS)**

MaPS provides free financial guidance, tools, and workplace programs focused on debt management, savings, and retirement planning. Measurement of financial capability and well-being is central to evaluating program success (MaPS, 2023).

- **India**

India has launched several large-scale financial literacy and well-being initiatives led by the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI). The National Strategy for Financial Education (NSFE) aims to improve financial literacy across all states, focusing on rural and underserved populations. Programs include community workshops, digital campaigns, and school curricula integration. Efforts also emphasize mobile banking and digital payments as key drivers of inclusion (Reserve Bank of India, 2022).

- **Malaysia**

Malaysia's financial well-being efforts are coordinated by the Credit Counselling and Debt Management Agency (AKPK) and Bank Negara Malaysia. AKPK offers counseling, education, and debt management programs to improve financial resilience, while Bank Negara's Financial Education Network promotes awareness through media and digital platforms. Special attention is given to youth financial literacy and promoting responsible credit use (Bank Negara Malaysia, 2023).

- **MENA Region**

In the Middle East and North Africa (MENA), countries including the United Arab Emirates, Saudi Arabia, Egypt, and Jordan have recognized the critical importance of financial well-being. National financial education programs are often developed in collaboration with international bodies like the World Bank and OECD. Key focuses include youth and women empowerment, digital financial services adoption, and improving consumer protection frameworks.

Regional initiatives such as the Arab Monetary Fund's financial literacy programs and the MENA Financial Literacy and Inclusion Task Force coordinate efforts to harmonize strategies and share best practices. Despite progress, literacy rates remain below global averages, pointing to the need for tailored programs addressing local socio-economic challenges (Alliance for Financial Inclusion (AFI), 2021; World Bank, 2021)

4.3 Emerging Trends

- Integration of financial well-being with mental health services has gained attention as financial stress is increasingly recognized as a major contributor to psychological distress. Integrative approaches help address both financial and emotional well-being holistically (Sweet et al., 2013; CFPB, 2017).
- The increasing reliance on digital tools and mobile applications enables personalized financial education, real-time budgeting, and proactive debt management. These technologies empower users to make informed decisions and improve financial behaviors (Lusardi & Mitchell, 2014; OECD, 2021).
- There is a growing emphasis on sustainable finance, with financial systems increasingly supporting environmental, social, and governance (ESG) goals. This trend reflects a shift toward aligning financial well-being with broader societal and environmental outcomes (UNEP, 2021).
- Multi-stakeholder collaborations among governments, non-governmental organizations, financial institutions, and academic researchers are essential for developing inclusive financial policies and expanding financial literacy. Such partnerships enhance the effectiveness of interventions by pooling expertise and resources (Hastings et al., 2013; World Bank, 2019).

4.4 Challenges

- Standardizing financial well-being measurement across diverse cultural and economic contexts.
- Ensuring accessibility and relevance to marginalized and vulnerable groups.
- Balancing innovation in fintech with data privacy and security concerns.

4.5 Key Performance Indicators (KPIs)

The information presented in the following table summarizes key objectives, indicators, and examples of countries actively implementing financial well-being programs globally. It is based on the latest available reports and research from reputable organizations such as the OECD, Consumer Financial Protection Bureau (CFPB), Australian Securities and Investments Commission (ASIC), and regional financial education bodies. While the listed countries reflect notable efforts and best practices, specific benchmarks and program details may differ due to evolving policy priorities, cultural contexts, and socioeconomic conditions. With this foundational the overview of international practices and indicators lays a solid foundation for examining how financial well-being is defined and measured within academic literature, with particular emphasis on the development of multidimensional assessment tools. The discussion continues in the next section.

Table 11. Examples of KPIs used internationally for financial well-being.

Objective Type	**Indicator**	**Countries and Economies**
Measurement of Financial Well-Being	Financial well-being scores	• United States (CFPB) • Australia • United Kingdom • Canada • Hong Kong (China)
Measurement of Financial Resilience	Emergency savings rate Ownership of emergency funds	• Australia • United States • United Kingdom
Reduction of Financial Stress	Self-reported financial stress levels	• United States • United Kingdom
Promotion of Positive Financial Behaviors	Regular savings rate Responsible debt levels	• Australia • United Kingdom • Malaysia
Digital Financial Inclusion	Usage of digital financial services	• Hungary • Malaysia • MENA (e.g., UAE, Saudi Arabia)
Support for Vulnerable Groups	Access to targeted financial education programs	• Netherlands • MENA (e.g., Egypt, Jordan)
Monitoring of National Strategies	Periodic evaluation of financial well-being indicators	• United States • France • Japan

Source: Author's compilation, inspired by OECD (2023). *Financial Literacy and Well-Being: A Global Overview*, CFPB (2022). *Financial Well-Being Scale Report*, ASIC (2021). *National Financial Wellbeing Strategy*, MaPS (2023). *Financial Capability and Wellbeing Report*, and regional financial education program publications.

Section 03: Instruments and Dimensions of financial well-being

This section examines the measurement of financial well-being that were shown to be the most adequate in the systematic review to provide a review and analysis of the instrument used to measure financial well-being, focusing on commonly used scales and their psychometric properties and other used measurements.

1. Measuring Financial Well-Being

While the conceptualization and measurement of financial well-being are not yet standardized, two approaches to measuring financial well-being are widely used: the objective approach (Joo & Grable, 2004; Kahneman & Deaton, 2010; Lanz et al., 2020) and the subjective approach (Lanz et al., 2020; Rea et al., 2019) Some studies (Gerrans et al., 2014; Brüggen et al., 2017; Xiao & O'Neill, 2018) have adopted an integrated approach and used both objective and subjective measures. The objective measure of financial well-being employs financial variables like income, savings and financial ratios, whereas the subjective assessment depends on personal and contextual factors. The subjective measure has dominated the financial well-being literature, followed by the integrated measure, On the other hand, objective measures are used only in few of the studies.

Personal assessment of financial well-being depends on many subjective factors like stages in the life of people (Malone et al., 2010), risk-taking ability, discipline towards meeting expenses and stress due to debt (Kim et al., 2003). Financial well-being requires the skill to manage financial transactions, the ability to eliminate financial surprises and the ability to steer to achieve financial targets. Therefore, personal financial behavior is critical in improving an individual's financial well-being. It can be said that the subjective approach is essential to capture non-financial issues and cannot be ignored. The positive association between financial literacy programs and financial well-being has been well documented (Bernheim & Garrett, 2003; Lusardi, 2004; Tahir et al., 2021) in the literature, supporting this view. Financial literacy programs also positively influence personal financial behavior (Collins & Urban, 2020).

2. Dimensions and Definitions of financial well-being Instruments

Given the variety of definitions already established, Aubrey et al., (2022) provides the most comprehensive conceptualization of financial well-being, linking it to the general well-being model proposed by Keyes, (2002) in the context of financial well-being measurements, which includes both hedonic and meaningful components (Delle Fave et al., 2011). Similar to well-being and quality of life (Carlquist et al., 2017; Cummins, 2000; Delle Fave et al., 2011), financial well-being is considered to be the result of both objective and subjective measures (Mahendru et al., 2022). Ultimately, only the individual can accurately assess their own FWB. Thus, the subjective aspect of financial well-being should always be measured (Brüggen et al., 2017).

Table12. Objective and subjective measures of financial well-being according to the literature

Objective financial well-being measurements	Household income, expensed, savings, spending, debt, assets, payments, price, expenditure, wealth, earnings, pension, net worth, budget, interest, gross receipts, rent, salary, compensation, medical emergencies, financial ratio, long-term earnings, cost of meals, exchange, repair, availability of cash, ownership, possessions, bonus, dividends, stipends, rent, mortgage, GDP, Per capita income, inequality, interest rate, inflation, financial contributions, growth, instability, resource allocation, protection, allowances, yields, disposable income, poverty, gains, stocks, funds, interest rate, annuity plans.	(Madero-Cabib & Fasang, 2016b)Zissimopoulos et al{Citatin}. (2015), Wagmiller et al. (2008), Dong et al. (2019), Schmeiser & Seligman (2013), Baye (2013), Powell et al. (2017), Zhan & Pandey (2004),Temple & Williams (2018), (Madero-Cabib & Fasang, 2016b), Sabia (2008), (Currie & Spatz Widom, 2010), (Wolff & Zacharias, 2009), Brenes-Camacho (2011), (Kulic, 2013), Weaver et al. (2013), Painter (2013),Espinosa & Rudenstine (2020), Brown et al. (2016), Kilburn et al. (2019), Sharma (2015), Ahn (2015),Cherchye et al. (2012), Parish et al. (2010), King et al. (2016), Livermore & Honeycutt (2015),Jaikumar et al. (2018),LaVeist et al. (2010), Schur (2002), Nandi et al. (2016), Moody-Ayers et al. (2007), Lee et al. (2015), Halpern-Manners et al. (2015), Clarkberg (1999), Lobao & Hooks (2003),Tolman & Rosen (2001). (Brown et al., 2005),
Subjective financial well-being measures	The ability of households to make ends meet, inner well-being, relative assessment, time dimension, financial security, financial freedom, perceived financial well-being (current money management stress and expected future financial security), individuals' views of their financial situations and the financial situations of others, financial anxiety, current money management stress, perceived financial security, personal financial satisfaction, subjective financial well-being, economic well-being continuum, perceived ability of households to make ends meet, the In-Charge Financial Distress/Financial Well-being (IFDFW) scale, CFPB's subjective financial well-being scale, ability to make ends meet, number of problems with household expenditure, self-rated financial well-being, economic stress scale, perceived financial well-being, subjective economic well-being (the ability of households to make ends meet), financial well-being scale, satisfaction with overall financial circumstances, MacArthur Arthur-type ladder of self-positioning, having enough money left over for non-essentials to live life, explaining the household economic situation and evaluating economic systems, financial preparedness for emergencies, beliefs about credit limits as additional income, risky indebtedness behavior, financial hardships, economic well-being index (income, education, crime, health, and pollution), consumers' current economic self-sufficiency, perceived economic well-being, household financial difficulty, financial well-being scale, perceived financial security, improved perceptions of subjective economic well-being, wealth index, financial preparedness for old age and financial concerns, financial fragility, financial anxiety and financial security, perceived current wealth, perceived future wealth, sense of financial security, satisfaction with financial condition, family prosperity and level of family financial hardship, perception of financial strain, multi-dimensional subjective financial well-being scale, individual expectations of personal economic well-being, financial strain, expected future financial security and current money management stress, economic abuse, current economic self-sufficiency.	Palomäki (2017), D'Agostino et al. (2020), Ponchio et al. (2019), Gaibulloev et al. (2019), Sinha et al. (2021), Bonke & Browning (2008), Losada-Otalora et al. (2020), Mammen et al. (2015), Cracolici et al. (2012), Chatterjee et al. (2019), Michael et al. (2019), Mahdzan et al. (2020), Mahdzan et al. (2019), Utkarsh et al. (2020), Riitsalu & Murakas (2019), Choi et al. (2020), Xie et al. (2020), Brenner et al. (2020), Michael Collins & Urban (2020), Lee et al. (2020), Neman (2020), Arber et al. (2014), Burcher et al. (2021), Xue et al. (2019), Cherney et al. (2020), McCabe & De Judicibus (2003), Hampson et al. (2018), Palomäki (2019), To et al. (2020), Braun Santos et al. (2016), Ivo Vlaev & Antony Elliott (2014), Hayo & Seifert (2003), Abrantes-Braga & Veludo-de-Oliveira (2019), Belbase et al. (2020), Medcalfe (2018), Addai & Pokimica (2010), Cracolici et al. (2013), Norvilitis et al. (2021), Limbu & Sato (2019), Penn (2009), Nanarpuzha & Sarin (2021), Tareque et al. (2015), Lersch (2017), Philippas & Avdoulas (2020), Ianole-Calin et al. (2020), Wong & Lynn (2019), Yeo & Lee (2019), Dillon-Wallace et al. (2016), Berrick & Boyd (2016), Iannello et al. (2021), Glasgow & Weber (2005), Postmus et al. (2015), Netemeyer et al. (2018), Sauber & O'Brien (2020), Guo et al. (2013).

Source: Authors' own compilation (2025).

The accompanying table outlines two principal categories of financial well-being measurement prevalent in the literature: objective and subjective indicators. Objective financial well-being is primarily assessed through quantifiable economic metrics reflecting an individual's or household's material condition. These include income, expenditures, savings, debt levels, assets, pensions, net worth, and broader macroeconomic variables such as gross domestic product (GDP), inflation, and poverty levels. Researchers such as Zissimopoulos et al., (2015), Nicholas & Baum, (2020), and Dong et al., (2019) have used these indicators to evaluate financial status across various demographic groups and life stages. Their strengths lie in empirical verifiability and utility for longitudinal and cross-national comparisons, offering a solid foundation for informing fiscal and social policies in areas like retirement, poverty reduction, and inequality. However, objective measures are often critiqued for overlooking individual financial expectations, perceived resource adequacy, and the psychological impact of financial stress.

In contrast, subjective financial well-being refers to personal perceptions, attitudes, and emotional responses toward one's financial situation. These include perceived financial security, financial stress, satisfaction, and the ability to meet current and future obligations. Instruments such as the In-Charge Financial Distress/Financial Well-being (IFDFW) scale and the CFPB's financial well-being scale are commonly used to assess these elements. As shown in studies by Palomäki, (2017), Mahdzan et al., (2019), and Netemeyer et al., (2018), subjective indicators are vital for understanding the lived experience of financial conditions, especially in connection with psychological well-being and financial decision-making. Unlike objective measures, they capture nuances like anxiety, perceived strain, and overall satisfaction—factors increasingly recognized as essential to holistic financial health.

Yet, subjective assessments have limitations, being influenced by personal bias, cultural background, and temporal context. Perceptions can shift due to recent events, social comparison, or cognitive distortions, sometimes diverging from actual financial conditions. Furthermore, varying scales and conceptual definitions hinder comparability and standardization across studies. Despite these challenges, subjective measures remain valuable for highlighting gaps between material conditions and perceived security, offering insights into behavioral and emotional dimensions that objective metrics alone cannot reveal.

In summary, integrating both objective and subjective approaches is widely regarded as essential for comprehensively understanding financial well-being. Objective indicators provide solid, comparable data, while subjective measures add interpretive depth, illustrating how people experience and internalize their financial lives. Together, they support multidimensional research frameworks and guide more effective financial education, policy development, and intervention strategies that account for both tangible and perceptual aspects of financial life.

Table 13 Most common instrument psychometric evidence.

Instrument name	Reference (original/adaptation)	Dimensionality evidence (n° items and scale points)	Validity evidence	Reliability
IPEWB	1. (Walson & Fitzsimmons, 1993): original	PCA: one factor (7 items; 5-point scale)	Convergent and construct	α = .88
SFWBS	2. Norvilitis et al., (2003): original	PCA: Two factors (8 items; 5-point scale) 1. Current financial concern (6 items); 2. Future expectations (2 items)	Convergent and construct	α = .74
IFDFW	1. Nielsen, (2010): Adapted	PAF + CFA: Two factors (8 items; 10-point scale) 1.Subjective financial wellness (4 items) 2. Objective financial wellness (4 items) PCA: one factor (8 items; 10-point scale)	Convergent, content, face, and construct	α = .95
	3. Prawitz et al., (2006): original 8. Kamaludin et al., (2018): adapted		. Face, content, concurrent, convergent, Discriminant, predictive and construct . Construct, Face, and Content	α = .92 α = .75 to .91
NR	10. Abrantes Braga & Veludo-de-Oliveira, (2019): Original	PCA + CFA: Three factors (13 items; 7-point scale) 1. Financial preparedness for emergency (3 items) 2. Beliefs of credit limits as additional income (4 items) 3. Risky indebtedness behavior (6 items)	Face, content, construct, discriminant and convergent	
FWBS	6. CFPB, (2017): Original 13. Howat-Rodrigues et al., (2021): Adapted	EFA + CFA: one factor (10 or 5 items versions; 5-point scale)	Content, convergent, face and construct	IRT; MR = .89 α= .89

Table 13 (continued)

Instrument name	Reference (original/adaptation)	Dimensionality evidence (n° items and scale points)	Validity evidence	Reliability
PFWBS	9. Netemeyer et al., (2018): Original	EFA + CFA: Two factors (10 items; 5-point scale) 1. Future financial security (5 items) 2. Current money management stress (5 items)	Convergent and construct	α = .88
	12. Ponchio et al., (2020) : Adapted	CFA: Two factors (8 items; 5-point scale) 1. Future financial security (3 items) 2. Current money management stress (5 items)		α = .75 to .85
MSFWBS	11. Sorgente & Lanz, (2019): Original + adaptation	CFA: Five factors (25 items; 5-point scale) 1. General subjective financial well-being (10 items); 2. Money management (4 items); 3. Peer comparison (3 items); 4. Having money (3 items); 5. Financial Future (5 items)	Convergent and construct	ω = .77 to .94
	14. Aubrey et al., (2022): adapted	CFA + ESEM: five factors (25 items; 5-point scale) 1. General subjective financial well-being (9 items); 2. Money management (5 items); 3. Peer comparison (3 items); 4. Having money (4 items); 5. Financial Future (4 items)		ω = .76 to .98
NR	5. Delafrooz & Paim, (2013): original	CFA: one factor (9 items; 10-point scale)		α = .92
ORFWBS	15. Comerton-Forde et al., (2022): original	EFA: two factors (15 items; 5 and 3-point scale + frequency scale) 1. Self-reported outcomes (10 items); 2. Financial-record measures (5 items)	Face, content, construct, discriminant and convergent	IRT; α = .85 to .92
NR	7. Kempson & Poppe, (2018): original	CA: one factor (11 items; 5 and 3-point scale + frequency scale)	Content, convergent, face and construct	α = NR

α Cronbach's alpha; CFA confirmatory factor analysis; CFPB consumer financial protection bureau; EFA exploratory factor analysis; ESEM exploratory structural equation modeling; FWBS financial well-being scale; IFDFW incharge financial distress/financial well-being scale; IPEWB index of perceived economic well-being; IRT item response theory; MR marginal reliability (similar to α); MSFWBS multidimensional subjective financial well-being scale; NR not reported; ω mcdonald's omega; ORFWBS observed and reported financial wellbeing scales; PAF principal axis factor analysis; PCA principal components factor analysis; PFWBS perceived financial well-being scale; SFWBS student financial well-being scale.

Source: Authors' own compilation inspired of N. de O. Cardoso et al., (2023).

Table 14 A descriptive table for most widely used Scales to measure financial well-being.

Instrument Name	CFPB Financial Well-Being Scale	Personal Financial Wellness Scale (PFW)	InCharge Financial Distress/Financial Well-Being Scale	ANZ Financial Wellbeing Survey (Dec 2021)	Multi-dimensional subjective financial well-being scale	Perceived financial well-being scale
Developer	Consumer Financial Protection Bureau (CFPB)	Dr. E. Thomas Garman and his colleagues in 2006.	Dr. E. Thomas Garman and colleagues in 2004.	ANZ	Sorgente & Lanz (2019)	Netemeyer et al. (2018)
Purpose	To measure an individual's subjective perception of their financial situation and ability to meet current and future financial needs and goals.	To assess an individual's financial well-being—covering financial security, stress factors, and decision-making—and support education and better financial habits for individuals and organizations.	To assess financial distress and well-being by evaluating the level of financial stress experienced by individuals.	To understand the drivers of financial wellbeing in Australia, considering socio-economic factors, behaviors, and attitudes. The survey used a sophisticated methodology (SEM) to analyze the relationships between factors.	To assess and measure the multi-dimensional nature of financial well-being, including perceived security, satisfaction, and emotional factors.	To measure individuals' perceptions of their financial situation, focusing on their satisfaction with finances and related factors.
Versions	Standard (10 items), Abbreviated (5 items)	8-item scale	Single-version, 8-item scale	A thorough assessment using structural equation modeling which is designed to measure the causal linkages for key pathways of financial access.	Multi-item, exploring various facets of financial well-being and their relationships	10-item version, focusing on perceived financial health, adequacy, and security
Response Format	Descriptors and How Often (ratings of agreement or frequency, typically 5-point scales)	10-point Likert scale (from "Not at all" to "Completely")	10-point Likert scale (from "Not at all" to "Completely")	Response Format: 5-point Likert scale (ranging from "Never" to "Always")	10-point Likert scale (ranging from "Strongly Disagree" to "Strongly Agree")	5-point Likert scale (ranging from "Not at all" to "Completely")
Scoring	Designed with IRT to produce a well scaled score that is directly and easily calculated across a wide range.	Uses a summed score approach, where higher scores indicate better financial well-being.	Summed score approach; higher scores indicate greater financial distress, while lower scores indicate financial well-being.	People are categorized into four groups based on their score: struggling (0-30), getting by (>30-50), doing OK (>50-80) and no worries (>80-100).	Consistency measured through internal consistency (Cronbach's Alpha) and test-retest reliability.	Reliability assessed using Cronbach's Alpha and item-total correlation.
How Consistency of Results is Assessed	Reliability Scores Available (e.g., Cronbach's Alpha)	Reliability Scores Available (e.g., Cronbach's Alpha)	Reliability Scores Available (e.g., Cronbach's Alpha)	Focus is on data quality for the **SEM** model, not a single, overall reliability score. Survey questions' ability to sample adequality assessed to ensure accuracy in modeling.	Internal Consistency,Factorial Validity,Cross-Cultural Validation.	Cronbach's alpha, (SEM)FICO score
Marginal Reliability	* 18-61 self-administered:0.89 *18-61 read to:.90 * Phone .89	* 18-61 self-administered: 0.89 * 18-61 read to: 0.90 * Phone: 0.89	High reliability, typically above 0.85 in various studies.	Tests related to this sampling adequacy.	ω = .77 to .94	. α = .88
Population Tested	Used on a variety of test populations	Used in workplace financial wellness programs, research studies, and financial counseling.	Used in workplace financial wellness programs, financial counseling, and research on financial stress.	Single survey with 3,552 randomly selected Australian adults with a specific weighting to specific sectors.	Tested on an international sample of 4,475 emerging adults from nine countries: Austria, Canada, Finland, India, Italy, Portugal, Romania, Slovenia, and Turkey.	560 adults aged 18 and older. These participants were drawn from the Survey Sampling International (SSI)
Key Strengths	Validated, standardized, widely used.	Simple, brief.	Focuses on negative aspects, which can be useful for identifying those at risk.	Rich data, explores complex relationships, actionable insights.	High predictive power, considers multiple dimensions of well-being.	Simple to use, with clear insight into individual perceptions
Limitations	May not capture complex interrelationships or contextual factors.	May lacks nuance.	May not fully capture positive aspects of financial well-being.	The level of the complex assessment would make it very difficult to implement directly without specific training.	May not capture the full range of contextual factors affecting well-being.	Focuses primarily on subjective perceptions, not on objective measures.

Source: Author’ compilation (2025).

CHAPTER II: METHODOLOGICAL FRAMEWORK

This chapter outlines the methodological approach used to address the research objectives and test the hypotheses. It presents the research design, sampling strategy, data collection instruments, and analysis techniques.

Section 01: Methodology

The methodological framework serves as the backbone of scientific research across all disciplines, including management. Accordingly, this section outlines the adopted methodological approach to ensure the reliability, validity, and generalizability of the results obtained, which constitute the very foundation of the quality of our research.

1. Research Paradigm / Epistemological Stance

Amid the various scientific research approaches, it is necessary to position the present study within an appropriate epistemological paradigm. This is essential in order to develop a methodology consistent with the chosen approach (Gavard-Perret et al., 2012). According to the foundations of the epistemology of scientific research, the positivist paradigm allows for an explanation of reality. The constructivist, on the other hand, focuses on the construction of reality. Research aimed at understanding reality falls under the interpretivist paradigm (Gavard-Perret et al., 2012).

The present research is based on the hypothesis of an observable and measurable reality. It relies on the objectivity of the researcher. However, this reality is not unique. It is, in fact, absolute only to a certain extent. Since research results involve a certain margin of error, the study aligns with critical realism. Critical realism is appropriate here because financial well-being is a complex construct influenced by objective and subjective factors that can be measured but never fully captured (Salignac et al., 2020; Saunders et al., 2012; Shrestha & Sharma, 2024).

Moreover, it is based on an interpretation of data provided by individuals who are the subjects of the research. That being said, this study is positioned between the positivist and interpretivist approaches. It is framed within a post-positivist stance using quantitative tools. Post-positivism acknowledges that while an objective reality likely exists, it can only be apprehended imperfectly and probabilistically (Guba & Lincoln, 1994). It accepts that research is influenced by the researcher's perspective and the limitations of measurement tools, yet it maintains a commitment to objectivity, empirical evidence, and rigorous methodology to approximate this reality as closely as possible (Combarros & Hernández-Lara, 2021; Punch, 2013)

In contrast to interpretivist or constructivist paradigms, which would focus more on the subjective meanings and lived experiences of financial well-being through qualitative methods, this post-positivist approach prioritizes the measurement of FWB levels and the identification of statistically significant factors associated with those levels within the specific context of National Higher School of Management-Kolea students. This is consistent with recent research emphasizing the importance of empirical frameworks to understand determinants of financial well-being (Garg et al., 2024; Ranta & Salmela-Aro, 2017; J. J. Xiao & O'Neill, 2018).

Therefore, the post-positivist paradigm provides a suitable philosophical framework for this quantitative investigation into the determinants of financial well-being among teachers and professors at the Kolea university pole. The hypothetico-deductive approach used here allows for the verification of the analytical model and addresses the stated research problem by confronting theoretical knowledge with empirical data (Guba & Lincoln, 1994; Punch, 2013).

2. Study design (search strategy)

This study adopts a quantitative, hypothetico-deductive approach, aligned with a post-positivist paradigm. It aims to test theoretical relationships through empirical data collected via structured questionnaires.

Research design, or research architecture, is the framework that structures and connects the various elements of a study: the research problem, literature review, data, analysis, and results (Jain & Thietart, 2014).

Various types of research designs coexist, including exploratory, descriptive, explanatory (Saunders et al., 2012) and experimental studies (Akhtar et al., 2016).

The present study adopts an experimental design, as its objective is to measure a cause-and-effect relationship by observing the influence of the independent variable 'financial education' on the dependent variable 'financial behavior'.

Fig.22: *Deductive Research Approach.*

Literature on the relationship between financial well-being and its determinants.
(Agnew et al., 2013; CFPB, 2017; Drentea & Lavrakas, 2000, 2000; Dulcio, 2023; Fernandes et al., 2014; Hilgert et al., 2003; Ingale & Paluri, 2020; Kempson et al., 2016; Lusardi & Mitchell, 2014a; Mahendru, 2021b; Mahendru et al., 2022; Netemeyer et al., 2018a; Norvilitis & Mendes-Da-Silva, 2013; Perry & Morris, 2005; Saurabh & Nandan, 2018; Shim, Xiao, et al., 2009, 2009; Sweet et al., 2013; J. J. Xiao & Porto, 2017).

Consequently, this research seeks to address the following fundamental questions:

RQ1: What are the key determinants of Financial Well-Being?
RQ2: How can financial well-being be measured?

Direct effects
FB → FWB, FK → FWB, FS → FWB (–), FK → FB, FS → FB (–), FK → FS (–), INC → FK, INC → FS (–), INC → FWB

Mediation effects
FK → FB → FWB, FS → FB → FWB, INC → (FK, FS, FB) → FWB

Moderation effects
EDU × FWB, INSTAB × FWB, HOUSE × FWB

Hypothesis Testing and Study Results (see Chapter3).

***Source*:** Author's compilation, inspired from Jain & Thietart, (2014)

3. Data collection tool

The final step in the methodological research process, the data collection method depends on the preceding steps, namely: the post-positivist stance, the deductive approach, the experimental research strategy, and the cross-sectional time horizon. According to Fisher (1998), post-positivism includes within it a quantitative and qualitative analysis of elements emanating from subjective reality in order to explore the phenomenon under study.

On the other hand, quantitative approaches are primarily used to test theories within the framework of a hypothetico-deductive approach, using questionnaire surveys as a data collection tool (Al-Ababneh, 2020; Thierhat, 2014; Bell et al., 2019).

To this end, this research, adopts post-positivism as its research philosophy, a deductive research approach, and a survey research strategy. It employs a mixed-methods approach with a cross-sectional design to collect data at a single point in time, integrating a quantitative study using questionnaires as the tool for collecting quantitative data, which will then be statistically analyzed. Data were gathered using a self-administered questionnaire.

3.1 Questionnaire

The choice of collecting data via questionnaire is justified, on one hand, by the research process adopted (previously cited), and on the other hand, by the alignment of this tool with statistical analysis methods already established in the literature (Khawar & Sarwar, 2021; Lahiri & Biswas, 2022; Muñoz-Céspedes et al., 2023; OECD/INFE 2023 International Survey of Adult Financial Literacy, 2023; Purwidianti & Tubastuvi, 2019)

3.2 Questionnaire structure

The questionnaire design is carried out before data collection due to its importance in studying and quantifying a new phenomenon or exploring it from a previously unexamined angle. This process is necessary for the collection of primary data (Thierhat, 2014).

To this end, in order to study the phenomenon of financial well-being from an angle focusing on the financial behavior of college students, our questionnaire was distributed in Arabic, and French via Google Forms. It comprises nine (05) sections. Each section contains the measurement indicators for the variables constituting the study, notably the measurement indicators for the dimensions "Financial Knowledge," "Financial well-being

", “financial behavior” and "Financial stress", “Socio-economic factors” which make up the independent variable "Financial well-being." It also includes the measurement indicators for the mediating variable "financial knowledge " and the dependent variable "Financial Behavior," as follows:

The first section of the questionnaire provided an introductory overview, including a general yes-or-no question aimed at assessing whether respondents had previously heard of the concept of financial well-being.

This was followed by a second section dedicated to the collection of general demographic information. It included items related to age, gender, level of education, field of specialization, housing status, and geographic location. These demographic variables were deliberately placed at the beginning of the questionnaire to serve as an identification section. This strategic placement facilitates the initial screening of respondent eligibility and streamlines the data processing and analysis phases. Subsequently, the questionnaire was rigorously translated into both French and Arabic to ensure linguistic and conceptual equivalence. During this process, certain items were modified or removed in order to enhance the instrument’s validity and methodological rigor.

A pilot test was conducted on 20 students, and the resulting data was not integrated into the main questionnaire dataset. Demographic items were excluded from the validity analysis, as they are not conceptually part of the financial well-being construct. Although the questionnaire initially included 110 primary items for assessing financial well-being, financial knowledge, and financial behavior, the number of items was reduced to 79 due to the scoring method—multiple-choice questions were scored as single items rather than assigning separate scores to each option. Additionally, some items were excluded for reducing the reliability of the respective dimensions. The primary Cronbach's alpha for the overall scale was 0.716, indicating acceptable internal consistency."

- **Demographic characteristics**

The questionnaire begins with 2 filtering questions and after those demographic questions [Q3-Q9], aimed at identifying the profile of students from the Higher National School of Management based on demographic information. This section collects data on: gender, age, housing status, specialization, education level, current year of study (M1 or M2), and geographic zone.

- **Financial well-being**

The financial well-being of respondents was evaluated using the 10-item scale developed by the Consumer Financial Protection Bureau (CFPB, 2015) which is designed to measure financial well-being as a single, unidimensional construct. This scale as mentioned previously has been widely applied in survey research to analyze the relationship between financial well-being and various influencing factors. This section aims to assess students' financial well-being using ten items [Q10–Q20], each rated on a 5-point Likert scale. All responses are required and will be included in the scoring process according to the CFPB Financial Well-Being 10-Item Scale.

- **Financial behavior**

Financial Behavior is assessed using eight items (FB1–FB8) adapted from Xiao et al. (2009), Joo (2008), Bruggen et al. (2017), and the OECD-INFE (2018). Each item reflects practical financial actions such as timely bill payment, budgeting, saving, debt avoidance, and monitoring financial statements. Responses are captured on a 5-point Likert scale ranging from *1 (Never)* to *5 (Always)*, allowing measurement of the frequency and consistency of these behaviors. The scale is designed to capture students’ day-to-day financial habits and goal-oriented behaviors.

- **Financial knowledge**

Objective financial knowledge was measured using seven standardized items from the OECD (2023) Toolkit (QK3 to QK7_3). Respondents answered "True/False" and multiple-choice questions covering key concepts such as interest rates, inflation, risk, and diversification. Correct answers were scored as '1', incorrect as '0', yielding a total score ranging from 0 to 7. This composite score, treated as a proxy for the latent construct, was directly integrated into the SEM model as a single observed indicator. While modeled as an observed input, the score itself reflects a formative combination of distinct knowledge components. As such, internal consistency testing was not required.

- **Financial stress**

Financial stress was measured using six items adapted from Grable et al. (2011), each rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The items capture respondents' emotional and cognitive responses to their financial situations, focusing on perceived pressure, worry, and helplessness related to financial matters. In this study, financial stress was treated as a latent construct and modeled in the SEM framework using all six items as reflective indicators.

4. Measurement Instruments

This study utilized previously validated scales and proxy indicators to assess the main constructs.

- **Financial well-being (FWB)** was measured using a 10-item scale adapted from the Consumer Financial Protection Bureau (CFPB, 2015). The first six items were rated on a 5-point Likert scale ranging from 1 = "Not at all" to 5 = "Completely," while the last four items used a scale from 1 = "Never" to 5 = "Always." Reverse coding was applied for negatively worded items to ensure consistency in interpretation.

- **Financial behavior (FB)** was assessed through 11 items adapted from the OECD 2023 financial literacy survey. These items addressed several behavioral dimensions such as financial decision-making, budgeting, active saving, avoiding borrowing, choosing financial products, monitoring finances, setting financial goals, making considered purchases, and paying bills on time.

- **Financial Stress (FS)** was assessed using six items adapted from Grable et al. (2011)**,** capturing emotional and cognitive responses to financial difficulties. Items such as "I feel stressed about my personal finances" and "I worry about being able to fulfill monthly commitments" were rated on **a** 5-point Likert scale **(**1 = Strongly Disagree to 5 = Strongly Agree). The scale reflects both emotional strain and practical concerns, and has been widely validated for use in student populations.

  Following the selection of measurement tools, a structured questionnaire was developed. The questionnaire was pretested with 20 participants and reviewed by an expert to evaluate the clarity, wording, logical flow, sensitivity, and comprehensibility of the items. Based on feedback, several items were either revised or removed to improve the structure. Given the substantial number of latent variables included in the research model, the questionnaire was relatively long. It was translated into both French and Arabic and disseminated online using the Google Forms platform.

5. Selection of measurement tools

To ensure the reliability, validity, and generalizability of the results, the selection and adaptation of measurement scales for the study variables were guided by established practices in the economic literature. A standardized 5-point Likert scale was employed (ranging from 1 = "Not at all" to 5 = "Completely"). Reverse coding was applied to negatively worded items, which are indicated with an asterisk (*).

Below are the selected measurement scales:

***Table 15*.**Measurement Scale of the Dependent latent Variable Financial well-being.

VD	No. of items	Item Label	Measurement Indicators	Measurement Scale	Source
Financial Well-Being	10	FWB1	Ability to handle a major unexpected expense	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB2	Feeling secure about financial future	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB3	Money situation prevents having desired things	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB4	Can enjoy life due to financial management	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB5	Just getting by financially	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB6	Concern about money running out	5-point Likert scale (1 = Not at all to 5 = Completely)	CFPB, 2015
		FWB7	Giving a gift would strain monthly finances	5-point Likert scale (1 = Never to 5 = Always)	CFPB, 2015
		FWB8	Having money left over at the end of the month	5-point Likert scale (1 = Never to 5 = Always)	CFPB, 2015
		FWB9	Feeling that finances control one's life	5-point Likert scale (1 = Never to 5 = Always)	CFPB, 2015
		FW10	Falling behind on finances	5-point Likert scale (1 = Never to 5 = Always)	CFPB, 2015

***Source*:** Author's compilation.

Table16. Measurement Scale of the independent latent Variable Financial behavior.

VI 02	No. of items	Item name	Item statement	Measurement scale	Source
Financial Behavior	08	FB1	I pay my bills on time. (Internet…etc)	5-Likert Scale (1=Never to 5=Always)	Personal Financial Behavior Scale Xiao et al.;(2009)
		FB2	I create and follow a monthly budget to manage my spending.	5-Likert Scale (1=Never to 5=Always)	Xiao et al. ;(2009) , OECD-INFE (2018)
		FB3	I compare prices before making a major purchase.	5-Likert Scale (1=Never to 5=Always)	Xiao et al.;(2009) OECD-INFE (2018)

		FB4	I save money regularly. (Even if it's small amount)	5-Likert Scale (1=Never to 5=Always)	Xiao et al.;(2009)
		FB5	I set financial plan for the future.	5-Likert Scale (1=Never to 5=Always)	Joo (2008) ; Xiao et al.;(2009)
		FB6	I avoid borrowing money for unnecessary purchases.	5-Likert Scale (1=Never to 5=Always)	Joo (2008) ; Bruggen et al (2017)
		FB7	I try to stick to my financial goals.	5-Likert Scale (1=Never to 5=Always)	Joo (2008) ; Bruggen et al (2017)
		FB8	I review my financial statements regularly	5-Likert Scale (1=Never to 5=Always)	Xiao et al.;(2009)

***Source*:** Author's compilation.

Table17. Measurement Scale of the independent latent Variable Financial Knowledge.

VI 03	No. of items	Item Label	Concept Tested	Measurement Indicators	Correct Answer	Scoring Rule	Source
Financial Knowledge (objective)	07	FK1	Time value of money	Will 1000 DA split between five brothers have the same value in one year with inflation?	c. Less than today (or d. it depends…)	1 point for correct answer	OECD, 2023
		FK2	Interest on a loan	Friend returns 25 DA next day. How much interest paid?	Zero / Nothing / He didn't	1 point for correct answer	OECD, 2023
		FK3	Simple interest	100 DA with 2% interest per year – how much after 1 year?	$102	1 point for correct answer	OECD, 2023
		FK4	Compound interest	100 DA at 2% per year – how much after 5 years?	a. More than $110	1 point only if QK5 also correct	OECD, 2023
		FK5-1	Risk and return	High return means high risk? (True/False)	True	1 point for correct answer	OECD, 2023

		FK5-2	Definition of inflation	High inflation = cost of living increases rapidly? (True/False)	True	1 point for correct answer	OECD, 2023
		FK7_3	Risk diversification	Investment risk in the stock market can be reduced by purchasing different types of shares. (True/False)	True	1 point for correct answer	OECD, 2023
Financial Knowledge Score=Sum of Correct Answers (0≤Score≤7)							

***Source*:** Author's compilation.

Table18. *Measurement Scale of the independent latent Variable Financial stress.*

VI 01	No. of items	Item Label	Items Statements	Measurement scale	Source
Financial stress	06	FS1	I feel stressed about my personal finances.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Adapted from Grable et al. (2011)
		FS2	I worry about being able to fulfil monthly financial commitment.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Grable et al. (2011)
		FS3	I worry about having enough money to pay for daily expenses.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Grable et al. (2011)
		FS4	I feel stress thinking about the total amount of money that I owe.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Grable et al. (2011)
		FS5	I feel stress thinking about money.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Grable et al. (2011) Adapted
		FS6	I feel helpless in dealing with the financial problem in my life.	5-Likert Scale (1=Strongly disagree to 5= strongly agree)	Grable et al. (2011)

***Source*:** Author's compilation.

6. Estimation Method

The conceptual model of this study was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), rather than covariance-based SEM (CB-SEM) techniques. PLS-SEM offers several advantages, particularly for exploratory research and predictive modeling. It is also well-suited for handling small sample sizes, non-normal data distributions, and complex models. Given the focus of this research on predicting and explaining key constructs such as financial well-being, PLS-SEM was deemed the most appropriate analytical approach. Prior to analysis, 12 responses were excluded due to inconsistent or unusable responses, resulting in a final sample size of 188 valid responses. The statistical analyses were performed using SmartPLS 4 for structural model estimation, while SPSS version 27 was employed to conduct descriptive statistics and assess the internal consistency of the measurement scales using Cronbach's alpha.

7. Data Analysis

Data were imported into SmartPLS 4 for analysis via PLS-SEM, appropriate for the current sample size and study objectives. Say that the financial knowledge is formative. The data analysis for this study was conducted using both SPSS version 27 and SmartPLS 4, combining conventional statistical procedures with advanced structural modeling techniques. This dual-approach enabled a comprehensive examination of the data, from initial cleaning and descriptive profiling to the estimation of complex relationships within the proposed conceptual model.

7.1 Data Preparation and Coding (SPSS)

All survey responses were first entered and processed in IBM SPSS Statistics Version 27. This step involved careful data cleaning, including checks for inconsistent responses, outliers, and missing values. Descriptive statistics were computed to summarize the socio-demographic profile of respondents, including gender, age, income level, education, and housing status.Variables were coded according to the questionnaire structure. Dichotomous and categorical variables (e.g., gender, education level) were numerically encoded, and Likert-scale items were preserved as ordinal variables for subsequent analysis. Reverse-coded items, if present, were adjusted accordingly to ensure internal consistency in the reliability analysis.

Reliability testing using Cronbach's Alpha was conducted in SPSS to evaluate the internal consistency of the reflective latent constructs (e.g., Financial Well-Being, Financial Behavior, and Financial Stress). Constructs exceeding the threshold of $\alpha \geq 0.70$ were considered acceptable for further analysis (Hair et al., 2022)

7.2 Structural Equation Modeling (SmartPLS 4)

After initial screening, the cleaned dataset was imported into SmartPLS version 4 to conduct Partial Least Squares Structural Equation Modeling (PLS-SEM). PLS-SEM was selected due to its suitability for exploratory research designs, its ability to model both reflective and formative constructs, and its robustness when applied to moderate sample sizes (Hair et al., 2017; Sarstedt et al., 2022).

In the structural model, Financial Knowledge was treated as a formative construct, consistent with prior empirical studies (e.g., OECD, 2018), where knowledge is understood as a composite of independently contributing indicators (e.g., objective questions on financial literacy). Formative constructs are modeled differently from reflective constructs as they do not assume internal consistency but rather represent a cause-to-effect relationship between indicators and the latent variable.

The measurement model (outer model) was first evaluated to assess the reliability and validity of the constructs. This included examining outer loadings, composite reliability, average variance extracted (AVE), and discriminant validity using the Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio. For formative constructs, collinearity among indicators (via VIF) and the significance and relevance of indicator weights were assessed.

The structural model (inner model) was then assessed using bootstrapping procedures (5,000 resamples) to test the significance of path coefficients, mediation and moderation effects, and predictive power (R^2, f^2, Q^2). The model enabled the examination of both direct and indirect effects on financial well-being among student.

Section 02: Evidence

1. Population and Sample

The target population includes students from which a **sample of 376 valid responses** was collected. This sample size is sufficient for PLS-SEM analysis, especially when the model contains moderately complex relationships, as SmartPLS handles small to medium samples effectively.

2. Sampling Methodology: Proportional Stratified Sampling

The proportional stratified sampling method was chosen because it allows for the equitable representation of each specialty according to its weight within the total population. This method involves dividing the population into homogeneous strata (in this case, specialties) and drawing a sample from each stratum proportionally to its size. This method is justified in cases where the population is heterogeneous and where good representativeness of each subgroup needs to be ensured (Kish, 1965; Lohr, 2021).

2.1 Sample Size Calculation for Master 2 students

The sample size is calculated using the formula for finite population correction (FPC) version of Cochran's, (1977) sample size formula:

$$n = \frac{N.Z^2.p(1-p)}{e^2.(N-1) + Z^2.p(1-p)}$$

Where:

- n = required minimum sample size
- N = 401 (total population)
- z = 1.96 (95% confidence level)
- p = 0.5 (maximum variability)
- e = 0.05 (5% margin of error)

Substituting the values, we obtain:

n ≈ 196 students.

2.1.1 Proportional Allocation by Specialty for Master 2 students

Table 19 Proportional Allocation by Specialty for Master 2 students.

Specialty	**Total Number**	**% Of Population**	**Sample**
EG	29	7,23%	14
EMP	79	19,70%	39
MCL	37	9,23%	18
MDO	35	8,73%	17
MFE	35	8,73%	17
MM	40	9,98%	20
MPQ	36	8,98%	18
MRH	73	18,20%	36
MSSI	37	9,23%	18

Source: Sampling design constructed by the supervisor based on student data (2025).

2.1.2 Selection Method within Each Stratum

Once the numbers (or sample sizes) for each specialty have been defined, individuals can be selected by simple random sampling or systematic sampling from the available lists. The objective is to avoid any selection bias and to ensure statistical representativeness.

2.2 Sampling Methodology for Master 1 Students

The target population comprises 337 students distributed across ten specialties. To ensure statistical representativeness and good coverage of the different specialties, proportional stratified sampling has been chosen. This type of sampling is relevant in cases where the population naturally divides into strata (here, the specialties), each having a different size. The method helps reduce the variance of the overall estimator and ensures better representativeness (Kish, 1965; Lohr, 2021).

2.2.1 Sample Size

The sample size is calculated using the formula for finite population correction (FPC) version of Cochran's, (1977) sample size formula:

$$n = \frac{N.Z^2.p(1-p)}{e^2.(N-1)+Z^2.p(1-p)}$$

With the following parameters:

- n= required minimum sample size
- N = 337: total population size
- z = 1.96: 95% confidence level
- p = 0.5: maximum proportion of heterogeneity (or maximum variability)
- e = 0.05: 5% margin of error

Substituting these values into the formula, we obtain:
A sample of 180 students is required to obtain significant results with an acceptable margin of error.

2.2.2 Allocation by Specialty

Table 20 Reliability Barometer of the Model.

Specialty	Total Number	% Of Population	Sample
EG	32	9,49 %	17
EMP	52	15,43 %	28
GLCC	21	6,23 %	11
MCL	30	8,90 %	16
MDO	41	12,17 %	22
MFE	30	8,90 %	16
MM	25	7,42 %	13
MPQ	45	13,35 %	24
MRH	26	7,72 %	14
MSSI	35	10,39 %	19

Source: Sampling design constructed by the supervisor based on student data (2025).

The results are rounded to the nearest whole number to total 180 respondents.

3. Reliability Testing

In order to verify the reliability and validate the measurement scales used in our study, Cronbach's Alpha test is performed and interpreted according to the interpretation model of George & Mallery, (2003) as follows

***Table 21** Reliability Barometer of the Model.*

Cronbach's Alpha	Interpretation
$\alpha \leq 0.5$	Unacceptable reliability
$0.5 \leq \alpha < 0.6$	Poor reliability
$0.6 \leq \alpha < 0.7$	Questionable reliability
$0.7 \leq \alpha < 0.8$	Acceptable reliability
$0.8 < \alpha < 0.9$	Good reliability
$\alpha \geq 0.9$	Excellent reliability

Source: George & Mallery,(2003) Adapted.

3.1 Reliability assessment of the overall model

Table 23 Reliability test of the model (demographics not included).

Reliability test		
Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	N of Items
,729	,698	37

Source: *Authors' compilation based on SPSS v27 output.*

The Cronbach's alpha recorded through the reliability analysis of the model's measurement scale is 0.729, which exceeds the commonly accepted threshold of 0.70, indicating satisfactory internal consistency and acceptable reliability of the scale.

3.2 Reliability assessment– latent dependent variable

***Table22*.** Reliability of the financial well-being scale.

Reliability test		
Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	N of Items
,918	,919	10

Source: Authors' compilation based on SPSS v27 output.

The Cronbach's alpha obtained from the reliability analysis of the financial well-being measurement scale is 0.914, exceeding the commonly accepted threshold of 0.70 and indicating excellent internal consistency and reliability of the scale.

3.3 Reliability assessment of the latent variable financial behavior

Table 23. Reliability of the financial behavior scale.

Reliability test		
Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	N of Items
,888	,885	8

Source: Authors' compilation based on SPSS v27 output.

The Cronbach's alpha obtained from the reliability analysis of the financial behavior measurement scale is 0.888, exceeding the commonly accepted threshold of 0.70 and indicating good internal consistency and reliability of the scale.

3.4 Reliability assessment of the latent variable financial stress

Table 24.Reliability of the financial stress scale.

Reliability test		
Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	N of Items
,833	,833	6

Source: Authors' compilation based on SPSS v27 output.

The Cronbach's alpha obtained from the reliability analysis of the financial stress measurement scale is 0.833, exceeding the commonly accepted threshold of 0.70 and indicating good internal consistency and reliability of the scale.

3.5 Reliability assessment of Socio-Economic factors

Table 25. Reliability test of socio-economic factors.

Reliability test		
Alpha de Cronbach	Alpha de Cronbach basé sur des éléments standardisés	N of Items
,669	,687	6

Source: Authors' compilation based on SPSS v27 output.

Although each socio-economic factor (e.g., income level, income stability, housing status) was modeled as a separate observed variable in the SEM. Since these indicators are not intended to form a single latent construct, internal consistency measures such as Cronbach's alpha are not required. The Cronbach's alpha value of 0.669 remains within an acceptable range, supporting the coherence of the construct in this context.

CHAPTER III: RESULTS AND DISCUSSIONS

CHAPTER III INTRODUCTION

This chapter presents and interprets the results of the Structural Equation Modeling (SEM) analysis using SmartPLS 4. The aim was to investigate the antecedents and consequences of students' financial well-being (FWB), incorporating the roles of financial knowledge (FK), financial stress (FS), financial behavior (FB), and sociodemographic moderators such as income level, education level, income stability, and housing status. The analysis includes the evaluation of direct, indirect (mediation), and interaction (moderation) effects. All hypotheses were tested using a bootstrapping procedure with 5,000 subsamples to derive the significance levels of the estimated path coefficients.

Section 01: Results

1. Descriptive Analysis

In this section, we present the profiles and characteristics of the students who responded the questionnaire, thus forming the sample. This analysis was conducted using SPSS software.

1.1 Characteristics of respondents

Table 26. Respondents' profile (N=188).

Variable		*No*	*(%)*	*Variable*		*No*	*(%)*
Age	20	9	4.8	Employment	Full-time student	173	72.9
	21	30	15.9		Part-time employed	36	19.1
	22	51	27.0		Full-time employed	1	0.5
	23	72	38.1		Self-employed	12	7.4
	24	12	6.4	Housing	Living with parents	58	30.9
	25	3	1.6		Dormitory	110	58.5
	26	6	3.2		Rent	22	5.9
	27	3	1.6		Owner	9	4.8
	35	2	1.1	Monthly income	No income	124	66.0
Gender	Male	52	27.7		<10,000	21	11.2
	Female	136	72.3		10,000–19,999	20	10.6
Geographic zone	Urban	170	90.4		20,000–29,999	16	8.5
	Rural	18	9.6		30,000+	7	3.7
Education level	Master 1	89	47.0	Main income source	No income	17	9.0
	Master 2	99	53.0		Family support	140	74.5
Specialization	MFE	17	9.04		Part/full-time job	23	12.2
	MSSI	17	9.04		Self-employment	6	3.2
	MCL	17	9.04		Occasional/informal	2	1.1
	EMP	34	18.09	Eligibility	Yes	188	100.0
	E-G	15	7.98		No	0	0.0
	MM	17	9.04	FWB Familiarity	Yes	114	39.4
	MDO	20	10.64		No	74	60.6
	MPQ	21	11.17				
	MRH	25	13.3				
	GLCC	6	3.19				

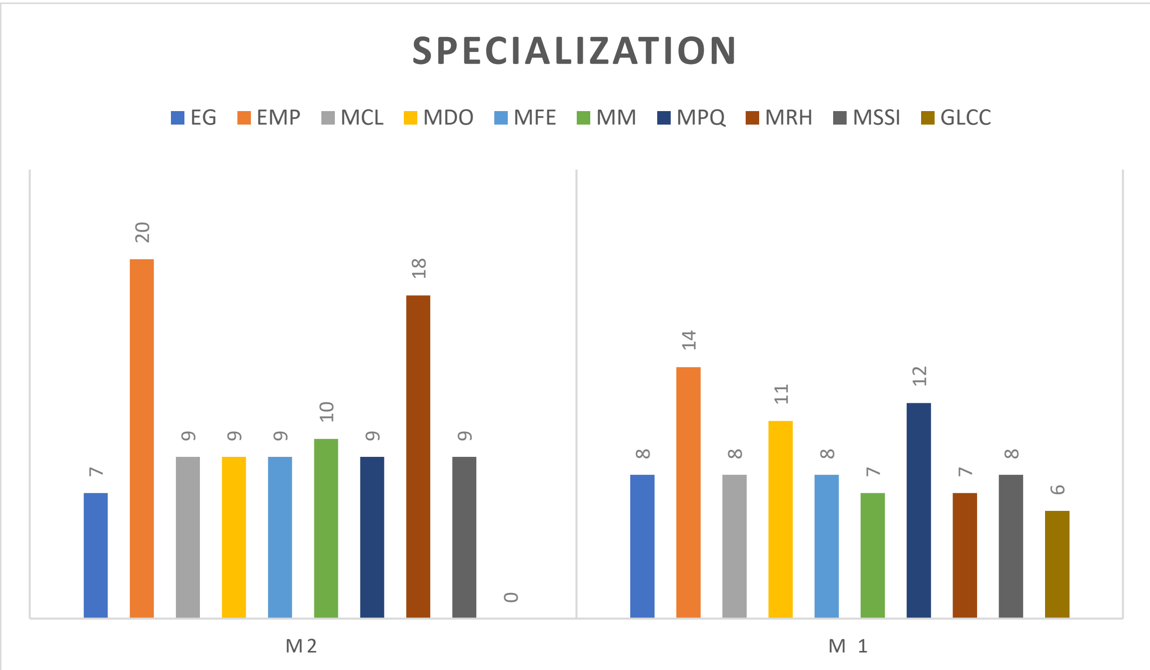
Source: Authors' compilation using SPSS v27, (2025).

The descriptive analysis of the respondents reveals that the sample is predominantly composed of female students (72.3%), with males accounting for only 27.7%, indicating a gender imbalance in favor of women. In terms of age, the majority are between 21 and 23 years old, with 38.1% aged 23, 27% aged 22, and 15.9% aged 21. This reflects a relatively young population, consistent with postgraduate student demographics. Regarding geographic origin, a significant proportion (90.4%) come from urban areas, while only 9.6% are from rural regions.

The academic level of respondents is nearly balanced between Master 1 (47%) and Master 2 (53%) students. The distribution across specializations is varied, with the most represented programs being Employment and Human Resources Management (EMP, 18.09%), Human Resource Management (MRH, 13.3%), and Project and Quality Management (MPQ, 11.17%). In terms of employment status, most respondents are full-time students (72.9%), while a smaller proportion are engaged in part-time work (19.1%) or self-employment (7.4%).

Housing data indicate that a majority live in university dormitories (58.5%), followed by those living with parents (30.9%). Concerning monthly personal income, two-thirds of respondents (66%) report having no income, with family support being the main source for 74.5% of the sample. Lastly, when asked about familiarity with the concept of financial well-being (FWB), only 39.4% responded affirmatively, while 60.6% stated they were not familiar with the concept. These findings collectively portray a financially dependent, academically active, and urban-centered student population, with relatively limited exposure to financial well-being concepts.

Fig 23 Specialization of Respondents distributed according to Education Level.



Source: Authors' compilation, SPSS output v27, (2025).

The bar chart presents the distribution of M1 and M2 students across specializations, based on stratified sampling to ensure representativeness. EMP and MRH dominate in M2 with 20 and 18 students respectively, reflecting strong interest or retention in these fields. In contrast, GLCC drops from 6 students in M1 to none in M2, suggesting low continuation or program suspension. Overall, specializations show relatively balanced distributions, with shifts such as the rise in MRH enrollment from M1 to M2 indicating possible late specialization choices.

2. CFPB Financial Well-Being Score of Students

The CFPB Financial Well-Being Score is a standardized indicator that measures how well a person feels they are managing their current and future financial situation; it is a subjective self-perception of financial well-being. based on 10 subjective items. The CFPB which provides normative benchmarks by age was used in this case.

It is originally derived using psychometric scaling (IRT – Item Response Theory), The simplified method using a raw or converted score out of 100 was done by SPSS v27.

2.1 Interpretation of the 0–100 score:

Table 27. of Interpretation of the 0–100 score

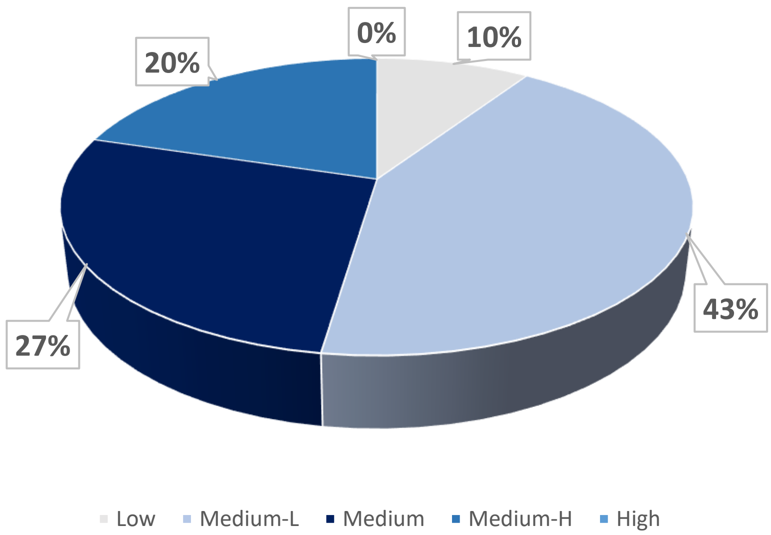
Score	**Level of Financial Well-Being**	**Interpretation**
0 – 39	Low	The individual is highly concerned about their finances, has little control, and struggles to meet basic needs.
40 – 49	Medium-Low	Regular financial stress, moderate instability.
50 – 59	Medium	Can cover basic expenses, but remains financially vulnerable.
60 – 69	Medium-High	Relatively stable, reasonably manages finances, but not completely secure.
70 – 100	High	Strong control over finances, feels secure in both the present and future.

Scores may vary by age, income, education level, and socioeconomic status.

2.2 Levels of financial well-being

The analysis of financial well-being scores among the 188 students surveyed at (ENSM) indicates that none of the participants achieved a high financial well-being score, as defined by the Consumer Financial Protection Bureau (CFPB). According to the CFPB scoring methodology, which adjusts benchmarks based on age, a score between 70 and 100 is considered "high" for individuals under the age of 62. Given that all participants in this study fall within the 19 to 38 age range, this benchmark was applied consistently across the sample. The distribution of scores shows that 35% of students are classified in the "medium" financial well-being category, while 26% are in the Medium-High category, and 27% fall into the Medium-Low category. A smaller proportion, 12%, are classified in the low financial well-being group. This distribution suggests that the majority of students experience moderate levels of financial well-being, with some variation across subcategories. The absence of students in the high category does not necessarily indicate financial distress across the board, but it may reflect limitations in financial security, planning capacity, or confidence at this stage of life. It may also be influenced by structural factors such as limited income sources, dependence on family support, or lack of financial education.

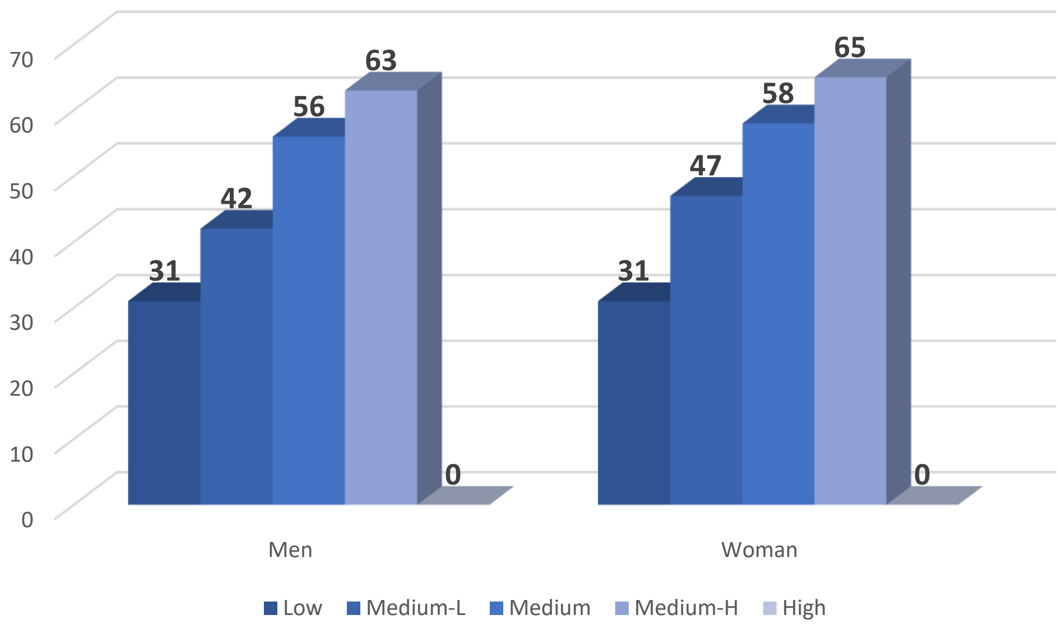
Fig. 24 Bar chart of financial well-being scores out of 100 by gender.



Source: Compiled by the author based on survey data collected from ENSM students, 2025.

Across participant students, the average financial well-being score, measured on a 100-point scale, is 49.96, with individual scores ranging from a minimum of 31 to a maximum of 61 out of 100. This confirms that all participants fall below the high financial well-being threshold established by the CFPB (≥70) for individuals under the age of 62. The relatively narrow range of scores highlights a general convergence toward low to moderate levels of financial well-being, with limited variation observed across the sample.

Fig.25 Bar chart of financial well-being scores out of 100 by gender.



Source: Compiled by the author based on survey data collected from ENSM students, 2025.

Note: The bar chart illustrates financial well-being scores (out of 100) across different levels for men and women. The distribution shows that both genders score similarly in the "Low" category (31%), but women slightly outperform men in higher categories. Notably, 65% of women and 63% of men fall into the "Medium-High" group, while no respondents in either group reached the "High" level. This suggests that while gender differences are minimal, overall financial well-being remains moderate, with no participants achieving high scores.

Table28. Financial Well-Being (FWB) Levels Among Respondents

Descriptive Statistics						
Items	N	Min	Max	Somme	Mean	SD
FWB1	188	1	5	621	3,30	,986
FWB2	188	1	5	584	3,11	1,300
FWB3*	188	1	5	666	3,54	1,181
FWB4	188	1	5	619	3,29	1,479
FWB5*	188	1	5	536	2,85	1,402
FWB6*	188	1	5	611	3,25	1,717
FWB7*	188	1	4	492	2,62	1,129
FWB8	188	1	5	584	3,11	1,228
FWB9*	188	1	5	531	2,82	1,248
FWB10*	188	1	5	413	2,20	1,064

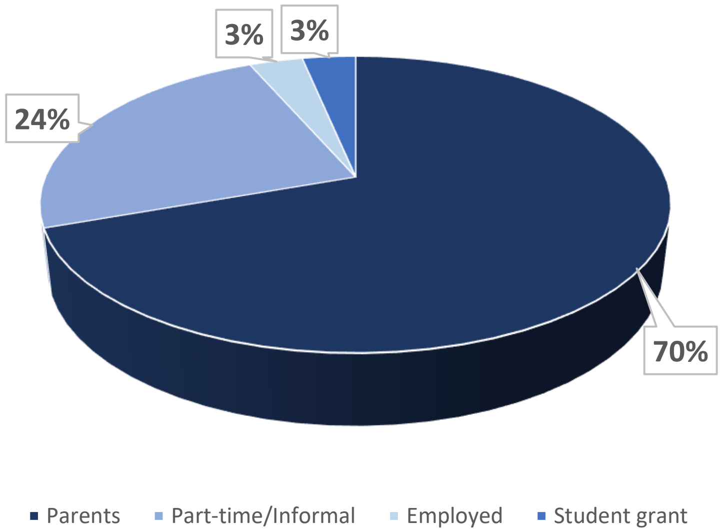
SD: Standard Deviation

Source: Compiled by the author based on survey data collected from ENSM students, 2025.

The level of financial well-being (FWB) among respondents was assessed using descriptive statistical measures. As shown in the corresponding table, the findings reveal a moderate level of financial well-being among the study participants. All items measuring FWB recorded mean scores ranging from 2.20 to 3.54, which fall at or above the midpoint of the 5-point Likert scale.

Notably, the item FWB3 — a negatively worded item ("Because of my money situation, I feel like I will never have the things I want in life") — recorded the highest mean score of 3.54 (SD = 1.181). This suggests a relatively strong perception of financial constraint among respondents. Similarly, the items FWB1 (Mean = 3.30; SD = 0.986) and FWB4 (Mean = 3.29; SD = 1.479) also scored around the mid-range, indicating areas where respondents may require additional support to enhance their financial well-being. These results highlight the need for targeted interventions aimed at improving perceived financial security and satisfaction among the surveyed individuals.

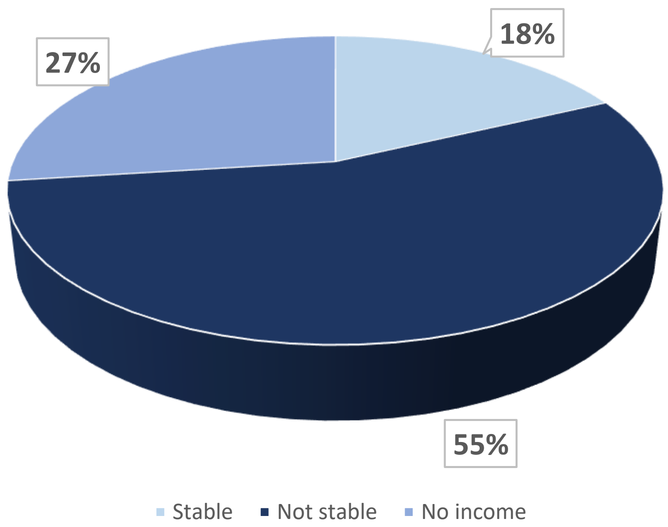
Fig.26 The primary source of financial earnings of respondents.



Source: Compiled by the author based on survey data collected from ENSM students, 2025.

Note: This graph presents the primary sources of income among student respondents. A significant majority (70%) rely on financial support from their parents, while only 24% earn income through part-time or informal work. Just 3% are employed, and another 3% report grants as their main income, despite it being generally insufficient.These findings reflect the heavy financial dependence of students and the limited availability of stable income sources within this population. From a financial well-being perspective, income source is an important objective indicator. The reliance on parental support and limited independent income suggests reduced financial autonomy among students—an essential aspect of objective financial well-being.

Fig 27 Income stability among respondents.

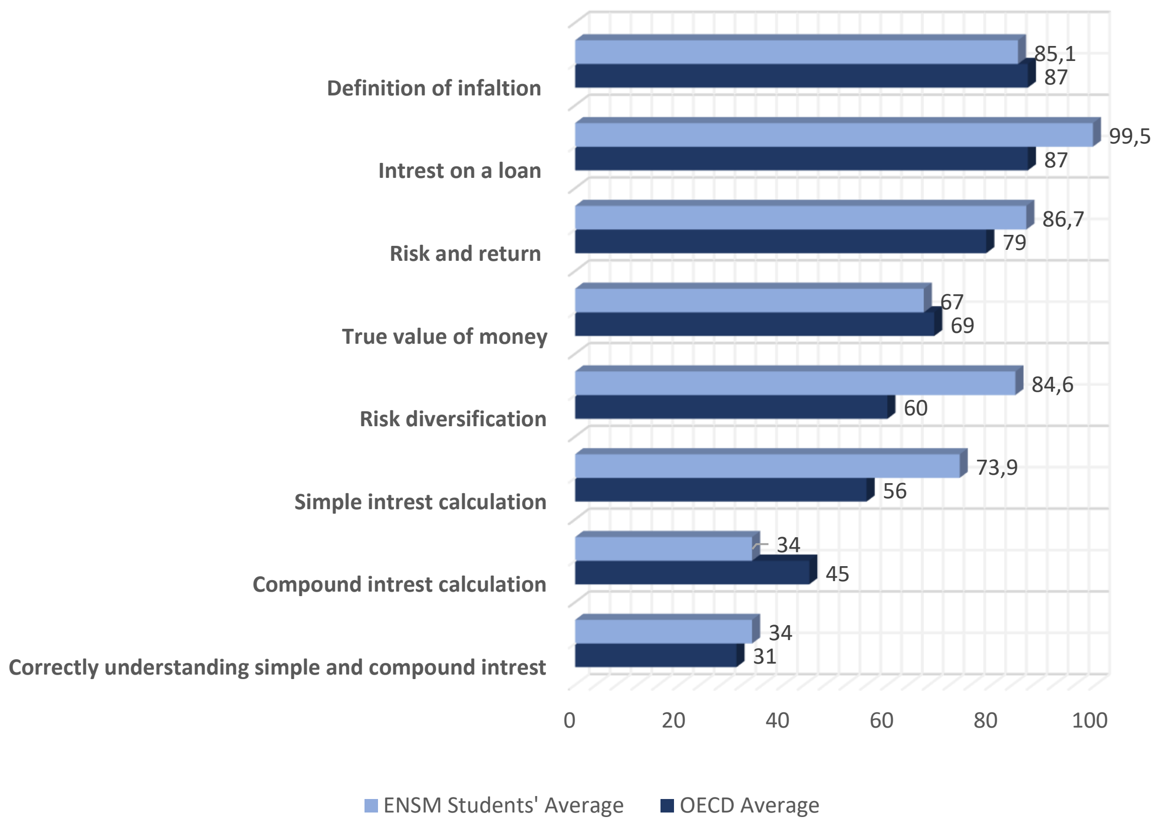


Source: Compiled by the author based on survey data collected from ENSM students, 2025.

Note: The chart illustrates the income stability of student respondents. A majority (55%) report having unstable income, while 27% have no income at all. Only 18% indicate stable income. This distribution likely reflects the fact that most participants are students who are financially dependent on their parents and may not have regular or independent sources of income.

3. Financial knowledge

Fig.28 Percentage of students who correctly answered each financial knowledge question.



Source: OECD/INFE 2023, OECD average compared with ENSM student data (author's survey).

Note: This graph presents the percentage of students who correctly answered each financial knowledge question, including those who accurately understood both simple and compound interest. It should be noted that not all columns shown in the graph are used in calculating the financial knowledge score.

4. Structural Model Evaluation

The structural model was evaluated for multicollinearity, model fit, and the significance of path coefficients. The collinearity statistics (VIF < 3) showed no multicollinearity issues. Path coefficients, along with their associated t-statistics and p-values, were used to determine the significance of hypothesized relationships. Additionally, model strength and predictive relevance were assessed using the $\mathcal{R}^2$, f^2, and Q^2statistics.

5. Reliability and Convergent Validity of the Measurement Model (Rounded)

Table 29. Reliability and Convergent Validity of the Measurement Model (Rounded)

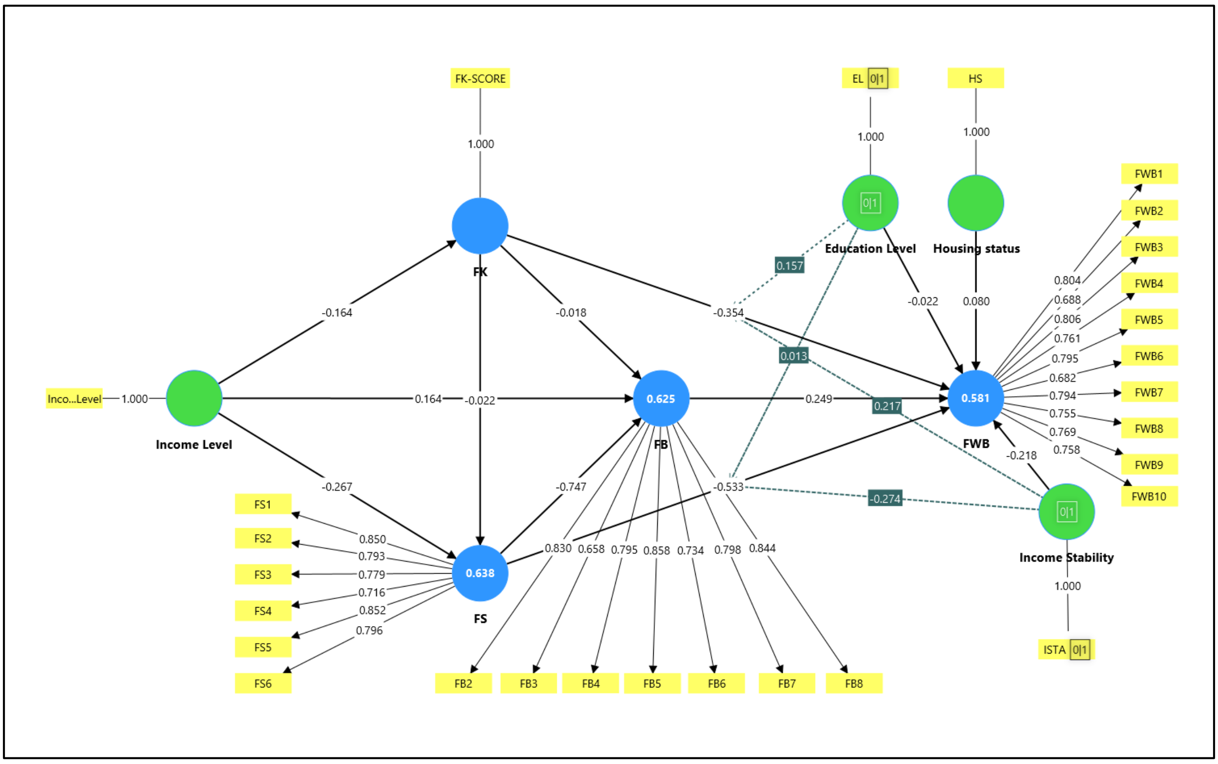
Construct	Cronbach's Alpha	Composite Reliability (ρc)	Composite Reliability (ρa)	Average Variance Extracted (AVE)
Mean, STDEV, T values, p values	nan	nan	nan	nan
Education Level	1.0	1.0	1.0	1.0
FB	0.899	0.921	0.91	0.625
FS	0.886	0.913	1.0	0.638
FWB	0.919	0.933	0.895	0.581
Housing status	1.0	1.0	0.921	1.0
Income Level	1.0	1.0	1.0	1.0
Income Stability	1.0	1.0	1.0	1.0
Confidence intervals	nan	nan	1.0	nan
Education Level	1.0	1.0	nan	1.0

Source: Output from Smart PLS V.4, 2025.

The measurement model demonstrates strong reliability and convergent validity for its reflective latent constructs. Notably, Financial Behavior (FB), Financial Stress (FS), and Financial Well-Being (FWB) each display Cronbach's Alpha values well above the accepted threshold of 0.70, indicating strong internal consistency. Their composite reliability scores (ρc and ρa) also meet the standards of measurement quality, exceeding 0.90 in most cases. Additionally, the Average Variance Extracted (AVE) values for these constructs are above the 0.50 benchmark, confirming satisfactory convergent validity. These results collectively validate the robustness of the latent constructs used to assess psychological and behavioral dimensions of student financial well-being.

In contrast, constructs such as Education Level, Income Level, Income Stability, and Housing Status display perfect reliability and AVE values (1.000). These figures should not be interpreted using the same criteria applied to reflective constructs, as these variables are not modeled as latent constructs but rather as proxy indicators or formative exogenous inputs. As such, they do not rely on internal consistency among multiple items but are instead entered directly into the model, often with categorical or ordinal scaling. Their appearance with perfect reliability metrics in the output reflects SmartPLS's default handling of proxy-type variables and does not imply psychometric redundancy or model misspecification.

Fig 29 Initial Measurement Model Results – Loadings and AVE.

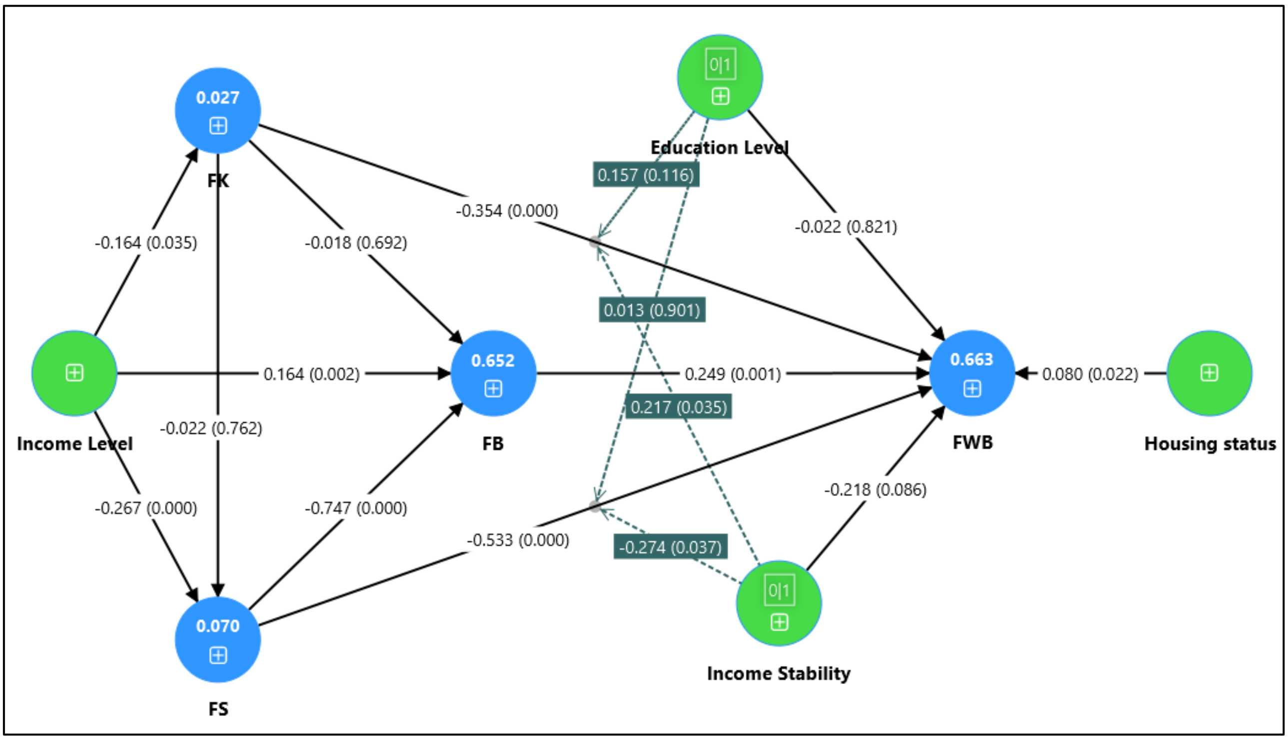


Source: Output from Smart PLS V.4, 2025.

6. Hypotheses testing

After establishing a satisfactory measurement model, the structural model was subsequently evaluated (see Figure 21). Hypothesis testing was conducted using a bootstrapping procedure with 5,000 subsamples, in line with the recommendations of Ali et al. and Sarstedt.

Fig.30 *PLS*-SEM hypothesis testing results using 5,000 Bootstraps Iterations.



Source: Smart PLS V.4 output, (2025).

The structural model depicted in Figure X presents the results of the PLS-SEM analysis conducted among students, with standardized path coefficients and corresponding p-values. The model demonstrates strong explanatory power for key endogenous constructs, particularly Financial Behavior (FB) ($R^2 = 0.652$) and Financial Well-being (FWB) ($R^2 = 0.663$), suggesting that a significant proportion of variance in students' financial behaviors and perceived financial well-being can be explained by the variables included in the model. In contrast, Financial Knowledge (FK) and Financial Stress (FS) show relatively low explanatory power ($R^2 = 0.027$ and 0.070, respectively), indicating the potential influence of unmeasured factors.

Among the most significant relationships, Income Level positively influences Financial Behavior ($\beta = 0.164$, $p = 0.002$) and negatively impacts Financial Stress ($\beta = -0.267$, $p = 0.000$), which aligns with the idea that students with higher income are more likely to manage their finances better and experience lower financial pressure. Interestingly, a small but statistically significant negative relationship is observed between Income Level and Financial Knowledge ($\beta = -0.164$, $p = 0.035$), suggesting that students with higher income may rely less on financial education or resources, potentially assuming financial stability is sufficient.

The model confirms that Financial Behavior positively affects Financial Well-being ($\beta = 0.249$, $p = 0.001$), while Financial Stress significantly reduces both Financial Behavior ($\beta = -0.747$, $p = 0.000$) and Financial Well-being ($\beta = -0.533$, $p = 0.000$). These results highlight the importance of emotional and behavioral factors in shaping students' financial outcomes.

Income Stability also plays a notable role: it positively predicts Financial Behavior ($\beta = 0.217$, $p = 0.035$), meaning that students with consistent income sources (e.g., scholarships, part-time jobs) tend to demonstrate better financial habits. However, its unexpected negative effect on Financial Well-being ($\beta = -0.274$, $p = 0.037$) may reflect student-specific stressors, such as the pressure of maintaining income while studying.

Moreover, Housing Status has a modest but significant positive impact on FWB ($\beta = 0.080$, $p = 0.022$), indicating that students with stable or independent housing arrangements tend to report higher financial well-being.

On the other hand, Education Level shows no significant direct impact on Financial Well-being ($\beta = -0.022$, $p = 0.821$), and its indirect relationships are largely non-significant, suggesting that academic level (e.g., year of study) may not directly influence students' financial outcomes.

6.1 Direct Effect Hypotheses Testing.

Table 30 Direct Effect Hypotheses Testing

Hypothesis	Path	Std. β	SE	t-value	p-value	95% CI	R2R^2	f2f^2	Q2Q^2	Supported
H1	FB → FWB	0.249	0.072	3.471	0.001	[0.108, 0.391]	0.663	Strong	0.298	Significant
H2	FK → FWB	-0.354	0.070	5.057	0.000	[-0.492, -0.215]	0.663	Medium	0.302	Not Significant
H3	FS → FWB	-0.533	0.073	7.301	0.000	[-0.676, -0.390]	0.663	Strong	0.401	Significant
H4	FK → FB	-0.018	0.045	0.396	0.692	[-0.106, 0.070]	0.652	None	0.014	Not Significant
H5	FS → FB	-0.747	0.045	16.526	0.000	[-0.835, -0.659]	0.652	Strong	0.589	Significant
H9	IL→ FK	-0.164	0.078	2.097	0.035	[-0.317, -0.011]	0.027	Low	0.036	Not Significant
H10	IL→ FS	-0.267	0.045	5.933	0.000	[-0.356, -0.178]	0.070	Medium	0.177	Yes
H11	IL→ FWB	Not significant	—	—	> 0.05	—	—	—	—	No

Source: Output from Smart PLS V.4, 2025.

- **H1: Supported.** Financial behavior positively and significantly predicts financial well-being. A standardized beta of 0.249 indicates a moderate effect. This supports prior literature that emphasizes actionable behaviors (budgeting, tracking expenses) as core contributors to student financial security.
- **H2: Not Supported.** Surprisingly, financial knowledge has a negative and significant effect on financial well-being ($\beta = -0.354$, $p < 0.001$). This could be interpreted via the "knowledge-stress paradox," where informed students may become more aware of their financial vulnerabilities, thereby perceiving lower well-being.
- **H3: Supported.** Financial stress strongly and negatively impacts well-being. The very high significance ($t = 7.301$) and effect size suggest that alleviating stress is paramount to improving students' financial outcomes.
- **H4: Not Supported.** No significant relationship between knowledge and behavior. This underscores the behavioral economics stance that knowing what to do does not guarantee that individuals will do it, especially under stress.

H5: Supported. Stress significantly suppresses positive financial behavior. Students under stress likely lack the cognitive resources to plan and manage money effectively

- **H9: Not Supported.** Income level negatively predicts financial knowledge, suggesting students from lower-income backgrounds may actively seek financial education, while affluent students may rely on inherited knowledge or experience.
- **H10: Supported.** Higher income significantly reduces stress, affirming that financial resources act as a protective buffer.
- **H11: Not Supported.** No direct path from income to financial well-being was significant; however, this may be explained through indirect mediation paths.

6.2 Mediation Effects Hypotheses Testing

Table 31. Mediation Effects Hypotheses Testing

Hypothesis	Mediation Path	Direct Path Significance	Indirect Path Significance	Std. Beta	t-value	p-value	Supported
H6	FK → FB → FWB	No	No	–	–	> 0.05	No
H7	FS → FB → FWB	Yes	Yes	Significant	High	< 0.001	Yes
H12	Income Level → FK/FS → FB → FWB	Partial	Yes (via FS)	Significant (via FS)	High (FS paths)	< 0.001 (FS only)	Partial

Source: Output from Smart PLS V.4, 2025.

- **H6** was not supported—financial knowledge does not influence financial well-being through behavior.
- **H7** was supported**,** indicating that financial stress affects well-being indirectly via financial behavior.
- **H12** was partially supported**:** income level influences financial well-being indirectly through financial stress**,** but not through financial knowledge.

6.3 Moderation Effects Hypotheses Testing

Table 32. Moderation Effects Hypotheses Testing

Hypothesis	Interaction Term	Std. β	SE	t-value	p-value	Supported
H13	Education Level × FK	0.157	0.100	1.574	0.116	No
H14	Income Stability → FWB	-0.218	0.118	1.849	0.086	Marginal
H15	Housing Status → FWB	0.080	0.035	2.308	0.022	Yes

Source: Output from Smart PLS V.4, 2025.

H13: Not Supported. Education level does not significantly moderate the FK–FWB relationship. The implication is that formal education may not enhance or buffer the impact of financial knowledge on well-being.

H14: Marginal Support. Income stability showed a borderline effect. The negative coefficient was unexpected, suggesting that perceived stability might lead to complacency, reducing proactive financial management behaviors.

H15: Supported. Housing status significantly moderates financial well-being. Students with secure or subsidized housing face less financial uncertainty, allowing more focus on academic and personal development.

7. Model Strength and Predictive Relevance

R^2 (Explained Variance):

Financial Behavior (FB): 0.652 (strong)

Financial Well-Being (FWB): 0.663 (strong)

f^2 (Effect Size):

FS → FB: 0.589 (strong)

FS → FWB: 0.401 (strong)

FB → FWB: 0.298 (moderate)

FK → FWB: 0.302 (moderate)

Q^2 (Predictive Relevance via Blindfolding):

FWB: ~0.30 (moderate predictive accuracy)

This study provides strong evidence that financial behavior and financial stress are the most salient predictors of student financial well-being. Contrary to conventional assumptions, financial knowledge alone does not guarantee positive financial outcomes. Interventions that reduce financial stress and cultivate sound financial behaviors (e.g., through behavioral training, nudges, and habit formation) may offer the most benefit to student populations. Moreover, the results underscore the limited impact of structural moderators like education and income on behavior without supportive behavioral scaffolding.

8. Classification of Model Variables as Exogenous and Endogenous with Justifications.

Table 33. Classification of Model Variables as Exogenous and Endogenous with Justifications.

Variable	Type	Justification
Income Level	Exogenous	Not predicted by any other variable in the model. It is a background demographic factor.
Education Level	Exogenous	A stable demographic characteristic; not predicted by any other construct.
Housing Status	Exogenous	Another demographic variable unaffected by other variables in the model.
Income Stability	Exogenous	Considered a contextual or moderating variable, not predicted by others in the model.
Financial Knowledge (FK)	Endogenous	Predicted by Income Level; also acts as a predictor for other constructs.
Financial Stress (FS)	Endogenous	Predicted by Income Level and FK; affects FB and FWB.
Financial Behavior (FB)	Endogenous	Mediated outcome; predicted by FK and FS, and predicts FWB.
Financial Well-Being (FWB)	Endogenous	Final dependent variable in the model, predicted by FB, FS, and FK.

Source: Authors' compilation from the Output from Smart PLS V.4, 2025.

The table provides a structured classification of the constructs used in the structural model, distinguishing between exogenous and endogenous variables based on their theoretical roles and empirical positioning within the model.

Exogenous variables—including Income Level, Education Level, Housing Status, and Income Stability—are not predicted by any other constructs in the model. These represent demographic or contextual factors that provide foundational input into the structural model. Their classification as exogenous is justified by their conceptual stability and independence from other latent variables. For example, Income Stability serves as a moderating variable, influencing relationships but not being influenced itself.

Endogenous variables, on the other hand, are influenced by other constructs. Financial Knowledge (FK) is treated as endogenous, as it is predicted by Income Level. Financial Stress (FS) and Financial Behavior (FB) are both mediating variables, influenced by exogenous and endogenous predictors alike. Financial Well-Being (FWB) is the final dependent construct, modeled as the ultimate outcome in the path model, predicted by FS, FB, and FK.This classification is essential for both the specification of causal paths and the validity of the SEM framework, ensuring alignment with both theoretical expectations and statistical requirements (Hair et al., 2021).

9. Model Equations Based on PLS-SEM Results

The following standardized regression equations represent the significant paths among constructs in the structural model. Each equation specifies the direction and strength of influence from exogenous or mediating variables to the endogenous construct, based on path coefficients (β) derived from bootstrapped estimation in SmartPLS.

- **First Equation: Financial Well-Being (FWB)**

$$\mathbf{FWB = 0.249 \cdot FB - 0.354 \cdot FK - 0.533 \cdot FS + \varepsilon_1}$$

Where:
FWB = Financial Well-Being
FB = Financial Behavior
FK = Financial Knowledge
FS = Financial Stress
ε_1 = Error term representing unexplained variance
$R^2 = 0.663$

Interpretation: Financial well-being is significantly influenced by financial behavior (positive effect), financial knowledge (negative effect), and financial stress (negative effect). Together, these variables explain approximately 66.3% of the variance in financial well-being.

- **Second Equation: Financial Behavior (FB)**

$$\mathbf{FB = -0.018 \cdot FK - 0.747 \cdot FS + \varepsilon_2}$$

Where:
FB = Financial Behavior
FK = Financial Knowledge
FS = Financial Stress
ε_2 = Residual error
$R^2 = 0.652$

Interpretation: Although financial knowledge does not significantly predict financial behavior, financial stress has a strong and negative effect on behavior. The model explains approximately 65.2% of the variance in financial behavior.

- **Third Equation: Financial Knowledge (FK)**

$$\mathbf{FK = -0.164 \cdot Income\ Level + \varepsilon_3}$$

Where:
FK = Financial Knowledge
Income Level = Reported student income or economic background
ε_3 = Unexplained variance
$R^2 = 0.027$

Interpretation: Income level negatively predicts financial knowledge in this model, accounting for 2.7% of its variance. This may reflect that student from lower-income backgrounds actively seek financial knowledge more than higher-income peers.

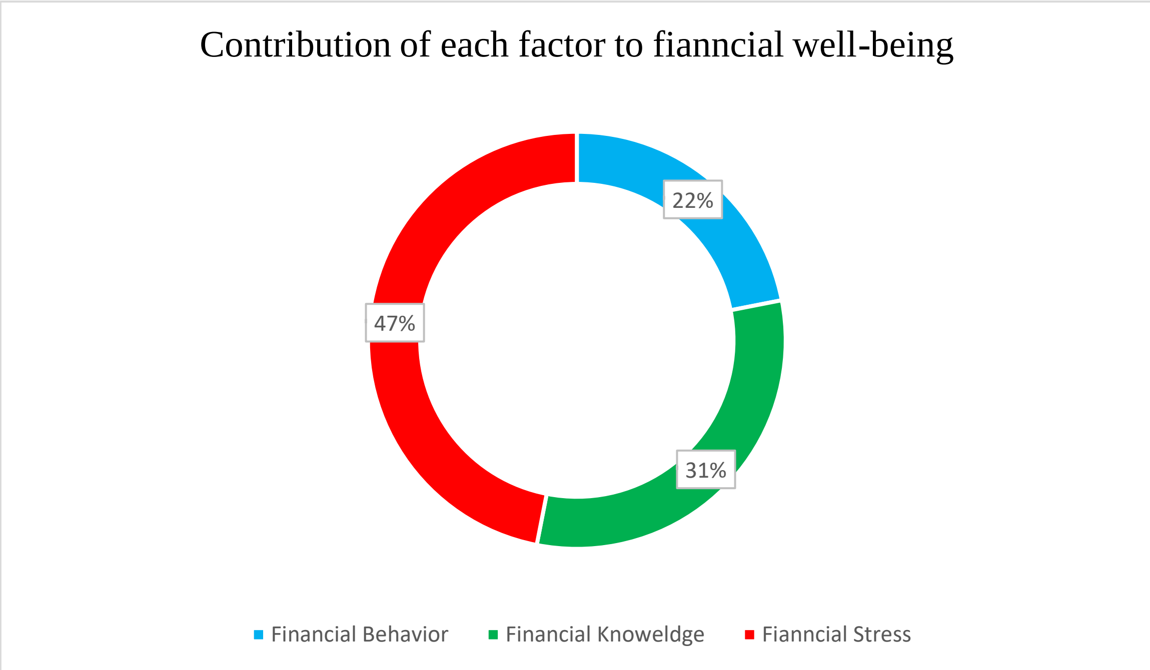
- **Forth Equation: Financial Stress (FS)**

$$\mathbf{FS = -0.267 \cdot Income\ Level + \varepsilon_4}$$

Where:
FS = Financial Stress
Income Level = Student’s self-reported income level
ε_4 = Error term
$R^2 = 0.070$

Interpretation: Income level negatively influences financial stress. Students with higher income levels tend to experience less financial stress, explaining 7% of the variance in the stress construct.

Fig.31 Estimated Contribution of Significant Predictors to Financial Well-Being (as Specified in This Model)



Source: Developed by the author based on standardized path coefficients from the structural equation model (SmartPLS output, 2025).

Methodological Note:

These percentages were calculated by taking the absolute values of the standardized beta coefficients for each predictor of financial well-being, dividing each by the total of all such values, and then converting the result into a percentage. This method follows guidance from Hair et al. (2021) on estimating relative predictor contribution in PLS-SEM.

While the current model identifies Financial Stress (47%), Financial Knowledge (31%), and Financial Behavior (22%) as the most statistically significant predictors of financial well-being among students, this does not imply the absence of other contributing variables. Rather, the chart reflects the relative contribution of these constructs **within the scope and limitations of the model tested**. It is likely that other psychological, structural, or institutional factors—excluded from the present analysis—also exert meaningful influence on student financial well-being. Future research should consider broadening the conceptual framework to account for such multidimensional influences.

Section 02: Discussions

1. Financial Behavior as the Most Actionable Determinant

In contrast to stress, which is often externally induced, financial behavior represents the most internal and controllable factor in the model. Although its standardized beta ($\beta = 0.249$, $p = 0.001$) was lower than that of financial stress, financial behavior remains highly significant and was responsible for roughly 22% of the total contribution to financial well-being in this model.

Financial behavior refers to actual practices such as budgeting, saving, avoiding unnecessary debt, and making informed spending decisions. Among these, two behaviors stood out as particularly impactful: (1) actively saving money and (2) refraining from borrowing for daily expenses. These are not only sound financial practices but also closely tied to psychological constructs like self-control, delayed gratification, and future orientation.

The importance of financial behavior lies in its modifiability. Unlike structural constraints (e.g., income level or housing status), behaviors can be shaped through education, incentives, and habit formation. Interventions targeting financial behavior—such as workshops, gamified savings apps, or behaviorally informed nudges—have demonstrated effectiveness in improving financial outcomes, particularly in low-resource contexts like that of students.

Furthermore, financial behavior plays a mediating role between financial knowledge and financial well-being. However, in this study, financial knowledge did not significantly influence behavior ($\beta = -0.018$, $p = 0.692$), reinforcing findings from behavioral finance literature: knowledge does not guarantee action. Without the right contextual supports—such as accessible savings products, real-time financial feedback, and social reinforcement—even well-informed students may fail to act on their knowledge.

2. Financial Knowledge

Surprisingly, the path analysis revealed a negative and statistically significant relationship between financial knowledge and financial well-being ($\beta = -0.354$, $p < 0.001$). These finding challenges traditional assumptions in the financial literacy literature, where financial knowledge is commonly viewed as a cornerstone of improved financial decision-making and, by extension, enhanced financial well-being.

Notably, the assessment scores indicate that students in this study performed exceptionally well in financial knowledge, suggesting a strong conceptual understanding of budgeting, saving, debt management, and related principles. However, despite this high level of financial competence, increased knowledge did not correlate with higher perceived financial well-being—in fact, the relationship was strongly negative.

This apparent paradox may be explained through the lens of what can be termed the “knowledge-stress effect.” Students who possess advanced financial knowledge may also be more aware of their financial constraints, future financial risks, and the socio-economic pressures they face. In the absence of a stable or sufficient income, this awareness can translate into heightened stress, feelings of financial inadequacy, and a sense of helplessness. These students know what they should be doing—such as saving regularly or avoiding high-interest debt—but may find themselves structurally unable to act on that knowledge, which can diminish their overall financial well-being.

This dissonance between knowing and being able to do reflects a broader critique of financial literacy models that focus solely on cognitive skill acquisition without addressing the structural and behavioral enablers of financial action. It aligns with the position of the CFPB (2015), which argues that financial knowledge must interact with attitudes, self-efficacy, and external opportunities in order to lead to meaningful behavior change and improved outcomes.

In the student context, then, financial knowledge may contribute to greater financial awareness but not necessarily greater financial empowerment. This highlights the need for institutions not only to provide financial education but also to create enabling environments—through work-study programs, emergency grants, subsidized services, and mental health support—to allow students to operationalize their financial knowledge in ways that positively influence well-being.

3. Financial Stress as a Psychological and Structural Burden

Financial stress emerged as the strongest negative predictor of financial well-being in the structural model ($\beta = -0.533$, $p < 0.001$), contributing approximately 47% of the explained variance among significant predictors. This finding is both intuitive and empirically robust. In the student context, financial stress is typically rooted in concerns about tuition, rent, transportation, and the daily cost of living. It is further exacerbated by the absence of stable income, limited access to financial support, and the growing burden of student debt.

Beyond its economic implications, financial stress functions as a psychological stressor that affects cognitive bandwidth, emotional resilience, and even academic performance. Consistent with findings from psychological economics, individuals experiencing chronic financial stress are more prone to make short-term decisions, avoid financial planning, and suffer reduced subjective well-being—even when their actual financial situation may not be objectively dire.

Importantly, in this study, financial stress not only exerted a direct effect on financial well-being, but also significantly suppressed financial behavior ($\beta = -0.747$, $p < 0.001$), acting as a behavioral inhibitor. This dual pathway illustrates the mediating power of stress, undermining both action and perception. The implication is that stress management strategies—such as financial counseling, crisis grants, and psychological support services—should be seen as integral components of student financial well-being initiatives.

4. Interaction and Implications

Taken together, the strong influence of financial stress and financial behavior suggests a need to shift the focus of financial education programs from merely informing students to empowering them to act while simultaneously addressing the psychological barriers that inhibit action. Programs that combine behavioral coaching with stress reduction techniques, and which are sensitive to students' structural constraints, are more likely to be effective than knowledge-centric interventions alone.

Moreover, these findings underline that student financial well-being is not just an economic issue, but a behavioral and psychological one. Financial capability, in this context, involves more than access to resources or financial literacy; it requires emotional resilience, a supportive institutional environment, and tools that facilitate positive behavior despite external pressures.

CONCLUSION

1. Synthesis and Overview

This thesis represents a comprehensive, empirically grounded investigation into the determinants of financial well-being among Algerian university students. As one of the first studies to apply Partial Least Squares Structural Equation Modeling (PLS-SEM) in this context, it successfully combines advanced quantitative modeling with a systematic literature review and bibliometric analysis, offering a holistic understanding of the cognitive, behavioral, and emotional components of student financial well-being. The findings reveal that financial behavior is the most substantial positive predictor of financial well-being, underscoring the practical importance of financial actions over mere awareness. Conversely, financial stress emerges as the most damaging factor, negatively influencing both behavior and well-being.

One of the most intriguing findings is the negative relationship between financial knowledge and financial well-being, despite the sample scoring higher than the OECD 2023 average in objective financial literacy. This apparent contradiction—termed the "knowledge-stress paradox"—suggests that in the absence of financial autonomy or stable income, increased knowledge may intensify awareness of financial vulnerability, rather than mitigate it. Mediation analysis further confirmed that financial behavior acts as a significant intermediary between stress and well-being, revealing how psychological burden translates into practical disengagement from positive financial practices. Demographic variables such as income and education level were found to exert only indirect effects, primarily through financial stress and behavior.

The model demonstrated robust internal consistency, convergent validity, and predictive accuracy, validating both the theoretical framework and measurement instruments. More broadly, this thesis advances the literature by capturing the interplay between cognitive, emotional, and behavioral dimensions of financial capability in a student population navigating economic instability. It thereby fills a notable empirical gap in financial well-being research, particularly in the MENA region, and sets a methodological benchmark for future studies in similar socio-economic environments.

2. Theoretical and Empirical Implications

The implications of these findings are both extensive and significant. At the theoretical level, the study confirms that financial well-being is not solely a function of financial knowledge or income, but rather an outcome of behavioral engagement and emotional regulation. This conceptualization is aligned with evolving international frameworks that advocate for multidimensional understandings of financial capability. The study's findings challenge reductionist models that privilege financial education over practical competence and psychological readiness, showing that knowledge alone does not ensure financial security or satisfaction.

This study represents the first empirically validated research of its kind conducted in Algeria within this specific context. The thematic focus of the research is highly timely and aligned with emerging global trends, as confirmed by a rigorous bibliometric analysis conducted using the Web of Science, a leading subscription-based scientific database. Over 282 peer-reviewed publications were examined in the bibliometric phase, providing a comprehensive overview of the intellectual landscape, highlighting influential contributions, and revealing key thematic clusters and research gaps. This not only ensured a robust theoretical foundation but also guided the formulation of the conceptual framework with precision and depth.

The bibliometric process was methodologically rigorous, transparent, and clearly structured, enabling replicability by other researchers. This level of clarity enhances the credibility and accessibility of the study, making it a valuable reference for future investigations. Complementing this, the systematic literature review, based on an in-depth analysis of 120 scholarly articles, was also meticulously organized. Its transparent methodology and step-by-step structure make it highly reproducible, allowing students and researchers alike to replicate or adapt the process with ease. The review offers an objective and comprehensive synthesis of the literature, further strengthening the study's scholarly value.

In addition, the study employed cross-culturally validated measurement scales, which were adapted and tested within the Algerian context—contributing to the international relevance and generalizability of the findings. The survey instrument demonstrated excellent psychometric properties, with particularly strong Average Variance Extracted (AVE) scores, indicating high construct validity. The choice of university students, classified as emerging adults, as the target population was strategic and significant; this demographic is both vulnerable and developmentally critical, providing rich insights into the subject matter.

Despite the methodological challenges, the research yielded robust and meaningful results. While certain constructs explored may be perceived as overstated in other contexts, their validation here adds nuance and depth to the field. Overall, the study stands out not only for the originality of its context and population but also for its methodological rigor, transparency, and replicability, offering a solid contribution to both academic literature and practical applications.

3. Research Limitations

Despite its strengths, the study is not without limitations. The cross-sectional design restricts the ability to draw causal inferences or observe the temporal evolution of financial well-being. While structural paths were statistically significant, they capture relationships at a single point in time, and thus cannot account for how financial experiences shift across academic years or major life events such as graduation or employment. The geographic focus of the sample—students from the Higher National School of Management in Algiers—limits the generalizability of findings to other regions and educational institutions. Algeria is socioeconomically diverse, and future studies would benefit from sampling across provinces, universities, and academic disciplines to capture broader variability. Additionally, the model did not incorporate several psychological constructs that have proven relevant in prior literature, including self-efficacy, locus of control, financial anxiety, and social norms. The inclusion of such factors could enhance explanatory power and deepen theoretical understanding.

Moreover, the study relied on self-reported data for all constructs, which may be subject to social desirability bias, introspective limitations, or recall error. Although international instruments were used for measurement, their cultural and linguistic adaptation remains an ongoing concern. A more rigorous validation process, including confirmatory factor analysis and qualitative pre-testing, is recommended for future applications in Arabic-speaking or Maghrebian populations.

4. Recommendations and Future Research Agenda

Given these limitations and the insights gained, future research should pursue longitudinal designs that allow for the tracking of financial behavior, stress, and well-being over time. Understanding how students' financial profiles evolve as they transition into the labor market or face economic shocks would offer a richer view of the durability and causality of observed patterns. Additionally, mixed-methods approaches are recommended to complement statistical findings with qualitative depth. Interviews and focus groups could uncover contextual or emotional dimensions of financial experience that are not easily captured through structured surveys.

The scope of future models should also be expanded to include psychological, social, and cultural factors. Variables such as parental financial socialization, peer influence, emotional intelligence, and digital financial behavior may provide a more holistic view of financial capability. Furthermore, future studies should undertake rigorous cross-cultural validation of existing measurement tools to ensure that constructs like financial stress and well-being are meaningfully interpreted across different cultural and economic contexts.

Finally, greater attention should be paid to the role of institutional environments. University-level supports such as financial aid, work-study programs, and financial coaching may significantly buffer stress and enhance behavioral capacity. Exploring how these structural elements interact with individual variables can deepen our understanding of how financial well-being is shaped and sustained in constrained environments.

BIBLIOGRAPHIC REFERENCES

Adams, N., Moore, M., & Dye, C. (2012). The Relationship Between Financial Knowledge, Financial Behavior, and Financial Well-being Among College Students. *College Student Journal*, *46*(4), 825–835.

African Development Bank. (2022). *Financial Inclusion in Africa: 2022 Update*. https://www.afdb.org/en/documents/financial-inclusion-africa-2022

Aggarwal, R. (2014). Impact of Financial Literacy on Financial Decision Making: A Study of Investors in Delhi. *International Journal of Research in Finance and Marketing*, *4*(9), 1–10.

Agnew, J., Bateman, H., & Thorp, S. (2013). Financial Literacy and Retirement Planning in Australia. *Numeracy*, *6*(2), Article 7. https://doi.org/10.5038/1936-4660.6.2.7

Ahamed, A. (2024). The Pursuit of Subjective Well-Being Through Financial Well-Being, Relationship Quality, and Spiritual Well-Being: A Configuration Approach with Fuzzy-Set Qualitative Comparative Analysis (fsQCA). *JOURNAL OF FAMILY AND ECONOMIC ISSUES*. https://doi.org/10.1007/s10834-024-09968-6

Akobeng. (2005). Principles of evidence-based medicine. *Archives of Disease in Childhood*, *90*(8), 837–840. https://doi.org/10.1136/adc.2004.068163

Ali, M., Riaz, A., & Shah, S. (2024). Financial Capability, Financial Well-Being, and Life Satisfaction of Women in an Emerging Economy. *JOURNAL OF FINANCIAL COUNSELING AND PLANNING*, *35*(3), 337–351. https://doi.org/10.1891/JFCP-2022-0021

Alliance for Financial Inclusion (AFI). (2021). *2020 AFI Annual Report*. Alliance for Financial Inclusion. https://www.afi-global.org/publication/2020-afi-annual-report/

Alsuwaidi, A. (2024). Financial well-being and its psychological determinants. *SAGE Open*, *14*(1), 1–12. https://doi.org/10.1177/23197145221121080

Alsuwaidi, R., Ahmad, S., & Khalid, K. (2024). Determinants of financial well-being for emerging adults: The moderating effect of financial risk tolerance. *INTERNATIONAL JOURNAL OF SOCIAL ECONOMICS*. https://doi.org/10.1108/IJSE-08-2023-0668

Altman. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*(7), e1000097. https://doi.org/10.1371/journal.pmed.1000097

Anandhi, E. D., & Velmurugan, G. (2025). The Impact of Financial Planning on Financial Well-Being with a Mediating Role of Tax Planning among Salaried Employees: An Empirical Study. *International Journal of Computational and Experimental Science and Engineering (IJCESEN)*, *11*(1), 737–748. https://doi.org/10.22399/ijcesen.965

Annink, A., Gorgievski, M., & Den Dulk, L. (2016). Financial hardship and well-being: A cross-national comparison among the European self-employed. *EUROPEAN JOURNAL OF WORK AND ORGANIZATIONAL PSYCHOLOGY*, *25*(5), 645–657. https://doi.org/10.1080/1359432X.2016.1150263

Anvari-Clark, J., & Ansong, D. (2022). Predicting Financial Well-Being Using the Financial Capability Perspective: The Roles of Financial Shocks, Income Volatility, Financial Products, and Savings Behaviors. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*, *43*(4), 730–743. https://doi.org/10.1007/s10834-022-09849-w

Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Atamanov, A., Jellema, J. R., & Lastunen, J. (2020). *Welfare and Fiscal Implications from Increased Gasoline Prices in the Islamic Republic of Iran* (Policy Research Working Paper Series, Issue 9320). World Bank Group. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/289881579239687861/

Atkinson, A., & Messy, F.-A. (2012). *Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study* (OECD Working Papers on Finance, Insurance and Private Pensions, Issue 15). OECD Publishing. https://doi.org/10.1787/5k9csfs90fr4-en

Aubrey, M., Morin, A. J., Fernet, C., & Carbonneau, N. (2022). Financial well-being: Capturing an elusive construct with an optimized measure. *Frontiers in Psychology*, *13*, 935284.

Baker, S. R., Bloom, N., & Davis, S. J. (2016). Measuring Economic Policy Uncertainty. *The Quarterly Journal of Economics*, *131*(4), 1593–1636. https://doi.org/10.1093/qje/qjw024

Balatif, M., Fachrudin, K., Silalahi, A., Syahyunan, & Torong, M. (2024). The Effect Of Financial Education And Financial Stress On Financial Well-Being With The Use Of Financial Technology. *QUALITY-ACCESS TO SUCCESS*, *25*(199), 108–118.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. W. H. Freeman and Company. https://archive.org/details/selfefficacyexer0000band

Barrafrem, K., Västfjäll, D., & Tinghög, G. (2020). Financial well-being, COVID-19, and the financial better-than-average-effect. *JOURNAL OF BEHAVIORAL AND EXPERIMENTAL FINANCE*, *28*. https://doi.org/10.1016/j.jbef.2020.100410

Bashir, I., & Qureshi, I. (2023). A Systematic Literature Review on Personal Financial Well-Being: The Link to Key Sustainable Development Goals 2030. *FIIB BUSINESS REVIEW*, *12*(1), 31–48. https://doi.org/10.1177/23197145221106862

Bashir, I., Qureshi, I., & Ilyas, Z. (2024). How does employee financial well-being influence employee productivity: A moderated mediating examination. *INTERNATIONAL JOURNAL OF SOCIAL ECONOMICS*, *51*(10), 1226–1246. https://doi.org/10.1108/IJSE-09-2023-0676

Belekhov, G. (2023). Financial Well-Being of Older Adults: Theoretical and Methodological Aspects and Assessment Issues. *ECONOMIC AND SOCIAL CHANGES-FACTS TRENDS FORECAST*, *16*(5), 117–137.

Bernstein, P. L. (2003). *The Power of Gold: The History of an Obsession*. Wiley.

Bhat, S., Lone, U., SivaKumar, A., & Krishna, U. (2025). Digital financial literacy and financial well-being—Evidence from India. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *43*(3), 522–548. https://doi.org/10.1108/IJBM-05-2024-0320

Botha, F., Bentley, R., Li, A., & Wiesel, I. (2024). Housing affordability stress and mental health: The role of financial wellbeing. *AUSTRALIAN ECONOMIC PAPERS*, *63*(3), 473–492. https://doi.org/10.1111/1467-8454.12340

Brüggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017a). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, *79*, 228–237. https://doi.org/10.1016/j.jbusres.2017.03.013

Brüggen, Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017b). Financial well-being: A conceptualization and research agenda. *JOURNAL OF BUSINESS RESEARCH*, *79*, 228–237. https://doi.org/10.1016/j.jbusres.2017.03.013

Brzozowski, M., & Visano, B. (2023). Canadian Consumer Financial Vulnerability, Stress, and Well-Being. *CANADIAN PUBLIC POLICY-ANALYSE DE POLITIQUES*, *49*(2), 114–135. https://doi.org/10.3138/cpp.2022-042

Bulog, I., Pepur, S., & Smiljanic, A. (2022). WOMEN'S OVERLOAD DURING THE PANDEMIC: UNPAID CARE WORK, FINANCIAL WELL-BEING, AND STRESS. *MANAGEMENT-JOURNAL OF CONTEMPORARY MANAGEMENT ISSUES*, *27*(1), 123–150. https://doi.org/10.30924/mjcmi.27.1.8

CAF - Development Bank of Latin America. (2023). *Financial Inclusion in Latin America and the Caribbean: Access, Usage, and Quality*. https://scioteca.caf.com/handle/123456789/2132

Campbell, A. (1976). Subjective Measures of Well-being. In A. Campbell, P. E. Converse, & W. L. Rodgers (Eds.), *The Human Meaning of Social Change* (pp. 117–132). Russell Sage Foundation.

Campra, M., Caruso, G., & Giordano, A. (2021). Mapping the intellectual structure of smart city research: A bibliometric analysis. *Sustainability*, *13*(17), 9919. https://doi.org/10.3390/su13179919

Cañas-Guerrero, J. C., Mazarrón, F. R., Pou-Merina, A., & González-Pérez, J. (2013). Bibliometric analysis of research on solar energy. *Renewable Energy*, *60*, 122–130. https://doi.org/10.1016/j.renene.2013.04.002

Cannon, C., Hirshleifer, D., & Thornton, D. (2024). Financial Decisions and Emotional Well-being: A Field Experiment. *Journal of Finance*. https://doi.org/10.1111/jofi.13228

Cardoso, N. de O., Markus, J., Machado, W. de L., & Guilherme, A. A. (2023). Measuring financial well-being: A systematic review of psychometric instruments. *Journal of*

Happiness Studies, *24*(8), 2913–2939. https://doi.org/10.1007/s10902-023-00697-5

Cardoso, N., Machado, W., Sorgente, A., & Guilherme, A. (2024). Cross-Cultural Adaptation and Validation of the Multidimensional Subjective Financial Well-Being Scale in Brazilian Adults. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*. https://doi.org/10.1007/s10834-024-09965-9

Carlquist, E., Ulleberg, P., Delle Fave, A., Nafstad, H. E., & Blakar, R. M. (2017). Everyday Understandings of Happiness, Good Life, and Satisfaction: Three Different Facets of Well-being. *Applied Research in Quality of Life*, *12*(2), 481–505. https://doi.org/10.1007/s11482-016-9472-9

Carnegie Endowment for International Peace. (2016). *Arab World Horizons: Digital and Economic Inclusion*. https://carnegieendowment.org/2016/05/arab-world-horizons-digital-and-economic-inclusion

Castro-González, S., Rey-Ares, L., & Bande, B. (2020). Financial Knowledge, Resilience and Financial Well-being: The Mediating Role of Financial Behavior. *International Journal of Consumer Studies*, *44*(6), 591–604. https://doi.org/10.1111/ijcs.12597

Centre for Economic Policy Research (CEPR). (2024). *Financial Inclusion and Digital Transformation in Emerging Markets*. CEPR. https://cepr.org/publications/financial-inclusion-and-digital-transformation

CFPB. (2015). *CFPB (2015a). Financial well-being: The goal of financial education.* (Cfpb2015financial). Consumer Financial Protection Bureau. https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf

CFPB. (2017). *Financial Well-Being in America*. U.S. Government. https://www.consumerfinance.gov/data-research/research-reports/financial-well-being-america/

Chatterjee, D., Kumar, M., & Dayma, K. (2019). Income security, social comparisons and materialism Determinants of subjective financial well-being among Indian adults. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *37*(4), 1041–1061. https://doi.org/10.1108/IJBM-04-2018-0096

Chen, F., Hsu, C., Lin, A., & Li, H. (2020). Holding risky financial assets and subjective wellbeing: Empirical evidence from China. *NORTH AMERICAN JOURNAL OF ECONOMICS AND FINANCE*, *54*. https://doi.org/10.1016/j.najef.2020.101142

Cherney, K., Rothwell, D., Serido, J., & Shim, S. (2020). Subjective financial well-being during emerging adulthood: The role of student debt. *Emerging Adulthood*, *8*(6), 485–495. https://doi.org/10.1177/2167696819879252

Chetty, R., Friedman, J. N., Hendren, N., Jones, M. R., & Porter, S. R. (2022). The Opportunity Atlas: Mapping the Childhood Roots of Social Mobility. *Quarterly Journal of Economics*, *137*(4), 1805–1864. https://doi.org/10.1093/qje/qjac015

Chipunza, K., & Fanta, A. (2024). Asset accumulation, financial inclusion and subjective well-being: The role of financial formality in South Africa's households. *REVIEW OF DEVELOPMENT ECONOMICS*, *28*(1), 128–150. https://doi.org/10.1111/rode.13044

Choowan, P., Daovisan, H., & Suwanwong, C. (2024). Effects of Financial Literacy and Financial Behavior on Financial Well-Being: Meta-Analytical Review of Experimental Studies. *INTERNATIONAL JOURNAL OF FINANCIAL STUDIES*, *13*(1). https://doi.org/10.3390/ijfs13010001

Clark, A., D'Ambrosio, C., & Zhu, R. (2021). Living in the Shadow of the Past: Financial Profiles and Well-Being*. *SCANDINAVIAN JOURNAL OF ECONOMICS*, *123*(3), 910–939. https://doi.org/10.1111/sjoe.12426

Cochran, W. G. (1977). *Sampling Techniques* (3rd ed.). John Wiley & Sons.

Coface. (2024). *Country and Sector Risk Barometer Q1 2024*. https://www.coface.com/News-Publications/Publications/Country-and-Sector-Risk-Barometer-Q1-2024

Collins, J. M., & Urban, C. (2020). The role of information on financial literacy and behavior: Evidence from a randomized experiment. *Journal of Economic Behavior & Organization*, *180*, 831–846. https://doi.org/10.1016/j.jebo.2020.10.018

Combarros, A., & Hernández-Lara, A. B. (2021). Post-positivism in management research: The case of strategic decision-making. *Management Decision*, *59*(6), 1312–1332. https://doi.org/10.1108/MD-11-2019-1659

Comerio, N., & Strozzi, F. (2019). Tourism and its economic impact: A literature review using bibliometric tools. *Tourism Economics*, *25*(1), 109–131. https://doi.org/10.1177/1354816618793762

Comerton-Forde, C., De New, J., Salamanca, N., Ribar, D., Nicastro, A., & Ross, J. (2022). Measuring Financial Wellbeing with Self-Reported and Bank Record Data. *ECONOMIC RECORD*, *98*(321), 133–151. https://doi.org/10.1111/1475-4932.12664

Comerton-Forde, C., Ip, E., Ribar, D. C., Ross, J., Salamanca, N., & Tsiaplias, S. (2018). Using survey and banking data to measure financial wellbeing. *Commonwealth Bank of Australia and Melbourne Institute Financial Well-Being Scales Technical Report*, *1*.

Consultative Group to Assist the Poor (CGAP). (2024). *Financial Health and Inclusion: New Frontiers in Measurement and Policy*. https://www.cgap.org/research/publication/financial-health-and-inclusion

Council on Social Work Education. (2017). *Curricular Guide for Economic Well-Being Practice (2015 EPAS Curricular Guide Resource Series)*. Council on Social Work Education. https://cswe.org

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.

Culnan, M. J. (1986). The Intellectual Development of Management Information Systems, 1972–1982: A Co-Citation Analysis. *Management Science*, *32*(2), 156–172. https://doi.org/10.1287/mnsc.32.2.156

Culnan, M. J. (1987). Mapping the Intellectual Structure of MIS, 1980–1985: A Co-Citation Analysis. *MIS Quarterly*, *11*(3), 341–353. https://doi.org/10.2307/248680

Cummins, J. (2000). *Language, Power and Pedagogy: Bilingual Children in the Crossfire*. Multilingual Matters. https://doi.org/10.21832/9781853596773

Cwynar, A., Cwynar, W., & Homa, D. (2019). Financial literacy and the performance of business models: Evidence from microenterprises in Poland. *Sustainability*, *11*(10), 2750. https://doi.org/10.3390/su11102750

D'Agostino, A., Rosciano, M., & Starita, M. (2021). Measuring financial well-being in Europe using a fuzzy set approach. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *39*(1), 48–68. https://doi.org/10.1108/IJBM-03-2020-0114

Dahlen, M., Colliander, J., Gajic, V., Kim, O., & Thorbjornsen, H. (2024). How do advertised prices affect consumers' financial well-being and happiness? *PSYCHOLOGY & MARKETING*, *41*(9), 2057–2069. https://doi.org/10.1002/mar.22026

Dahmani, A., Bouchareb, S., & Guesmi, K. (2024). Financial Inclusion and Gender Gap in North Africa: Evidence and Policy Implications. *Journal of African Economic Policy*, *11*(1), 35–50.

Deaton, A. (2012). The financial crisis and the well-being of Americans. *OXFORD ECONOMIC PAPERS-NEW SERIES*, *64*(1), 1–26. https://doi.org/10.1093/oep/gpr051

Delle Fave, A., Brdar, I., Freire, T., Vella-Brodrick, D., & Wissing, M. (2011). The Eudaimonic and Hedonic Components of Happiness: Qualitative and Quantitative Findings. *Social Indicators Research*, *100*(2), 185–207. https://doi.org/10.1007/s11205-010-9632-5

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. World Bank Group. https://openknowledge.worldbank.org/handle/10986/29510

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), *The SAGE Handbook of Organizational Research Methods* (pp. 671–689). SAGE Publications. https://dx.doi.org/10.4135/9781446280013.n34

Despard, M. R., Grinstein-Weiss, M., & Miller-Cribbs, J. E. (2015). Financial Capability and Asset Building: Research and Policy Implications. *Social Service Review*, *89*(3), 479–511. https://doi.org/10.1086/682347

DeVellis, R. F. (2016). *Scale Development: Theory and Applications* (4th ed.). SAGE Publications.

Diener, E., & Seligman, M. E. P. (2004). Beyond Money: Toward an Economy of Well-Being. *Psychological Science in the Public Interest*, *5*(1), 1–31. https://doi.org/10.1111/j.0963-7214.2004.00501001.x

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*(2), 276–302. https://doi.org/10.1037/0033-2909.125.2.276

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, Phone, Mail, and Mixed-Mode Surveys: The Tailored Design Method* (4th ed.). Wiley.

Director of Research at CREAD. (2021). *Role and Collaborations of CREAD in National Economic Development*. CREAD. https://www.cread.dz

Djalilov, K., & Ünal, M. (2018). Banking Sector Reforms and Institutional Framework in Transition Economies: A Comparative Analysis. *Research in International Business and Finance*. https://doi.org/10.1016/j.ribaf.2017.07.178

Dolan, P., Peasgood, T., & White, M. (2008). Do We Really Know What Makes Us Happy? A Review of the Economic Literature on the Factors Associated with Subjective Well-Being. *Journal of Economic Psychology*, *29*(1), 94–122. https://doi.org/10.1016/j.joep.2007.09.001

Donnelly, G., Iyer, R., & Howell, R. (2012). The Big Five personality traits, material values, and financial well-being of self-described money managers. *JOURNAL OF ECONOMIC PSYCHOLOGY*, *33*(6), 1129–1142. https://doi.org/10.1016/j.joep.2012.08.001

Donthu. (2021). Trends and Frontiers in Digital Financial Services Research. *Electronic Commerce Research and Applications*, *46*(1), 1–15.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. K. (2021). How to Conduct a Bibliometric Analysis: An Overview and Guidelines. *Journal of Business Research*, *133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Drentea, P., & Lavrakas, P. J. (2000). Over the Limit: The Association Among Health, Race and Debt. *Social Science & Medicine*, *50*(4), 517–529. https://doi.org/10.1016/S0277-9536(99)00298-1

Drever, A., Odders-White, E., Kalish, C., Else-Quest, N., Hoagland, E., & Nelms, E. (2015). Foundations of Financial Well-Being: Insights into the Role of Executive Function, Financial Socialization, and Experience-Based Learning in Childhood and Youth. *JOURNAL OF CONSUMER AFFAIRS*, *49*(1), 13–38. https://doi.org/10.1111/joca.12068

du Plessis, L., Jordaan, Y., & van der Westhuizen, L. (2024). Psychological needs and financial well-being: The role of consumer spending self-control. *JOURNAL OF FINANCIAL SERVICES MARKETING*, *29*(4), 1197–1206. https://doi.org/10.1057/s41264-024-00270-y

Duesenberry, J. S. (1949). *Income, Saving and the Theory of Consumer Behavior*. Harvard University Press.

Dulcio, P. R. (2023). *Financial Wellness: Knowledge, Behavior & Happiness* [Florida International University]. https://business.fiu.edu/academics/graduate/doctor-of-business-administration/docs/2023/patrick-dulcio.pdf

Easterlin, R. A. (1974a). Does Economic Growth Improve the Human Lot? Some Empirical Evidence. *Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz*, 89–125.

Easterlin, R. A. (1974b). Does Economic Growth Improve the Human Lot? Some Empirical Evidence. In P. A. David & M. W. Reder (Eds.), *Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz* (pp. 89–125). Academic Press.

Ekpo, A., Drenten, J., Albinsson, P., Anong, S., Appau, S., Chatterjee, L., Dadzie, C., Echelbarger, M., Muldrow, A., Ross, S., Santana, S., & Weinberger, M. (2022). The platformed money ecosystem: Digital financial platforms, datafication, and reimagining financial well-being. *JOURNAL OF CONSUMER AFFAIRS*, *56*(3), 1062–1078. https://doi.org/10.1111/joca.12458

El-Zoghbi, M., Chehade, N., McConaghy, P., & Soursourian, M. (2021). *From Financial Inclusion to Inclusive Finance: The Power of Financial Health*. Consultative Group to Assist the Poor (CGAP). https://www.cgap.org/research/publication/financial-inclusion-inclusive-finance-power-financial-health

Emara, N., & Mohieldin, M. (2020). *Financial Inclusion and Extreme Poverty in the Middle East and North Africa: New Evidence and New Challenges* (Policy Research Working Paper Series, Issue 9164). World Bank Group. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/423771591005803046

Falagas, M. E., Pitsouni, E. I., Malietzis, G. A., & Pappas, G. (2008). Comparison of PubMed, Scopus, Web of Science, and Google Scholar: Strengths and weaknesses. *FASEB Journal*, *22*(2), 338–342. https://doi.org/10.1096/fj.07-9492LSF

Fan, L. (2025). *Financial well-being varies across generations*. UGA Today. https://news.uga.edu/financial-well-being-varies-across-generations/

Fan, L., & Henager, R. (2021). Personality Traits, Financial Risk Tolerance, and Financial Behavior. *Journal of Consumer Affairs*, *55*(1), 127–157. https://doi.org/10.1111/joca.12325

Farah, M., Naveed, M., & Ali, S. (2023). Blockchain-Enabled Banking Services and Customers' Perceived Financial Well-Being: A Structural Nexus. In J. Gazquez-

Abad, F. Martinez-Lopez, & K. Gielens (Eds.), *Lebanese American University* (WOS:001342456600005; pp. 41–49). https://doi.org/10.1007/978-3-031-32894-7_5

Fergusson, D. M., McLeod, G. F. H., & Horwood, L. J. (2011). Childhood maltreatment and adult mental health: Prediction of diagnosis, symptom levels and service use. *Journal of Psychiatric Research*, *45*(5), 627–633. https://doi.org/10.1016/j.jpsychires.2010.10.017

Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial Literacy, Financial Education, and Downstream Financial Behaviors. *Management Science*, *60*(8), 1861–1883. https://doi.org/10.1287/mnsc.2013.1849

Field, A. P. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312

Friedman, M. (1962). *Capitalism and Freedom*. University of Chicago Press.

Fu, J. (2020a). Ability or opportunity to act: What shapes financial well-being? *WORLD DEVELOPMENT*, *128*. https://doi.org/10.1016/j.worlddev.2019.104843

Fu, J. (2020b). Ability or opportunity to act: What shapes financial well-being? *WORLD DEVELOPMENT*, *128*. https://doi.org/10.1016/j.worlddev.2019.104843

Gafoor, A., Amilan, S., & Patel, V. (2025). Financial well-being of internal migrant labours: The role of financial socialisation, financial knowledge and financial behaviour. *INTERNATIONAL JOURNAL OF SOCIAL ECONOMICS*, *52*(1), 78–90. https://doi.org/10.1108/IJSE-01-2024-0044

Gardarsdóttir, R., & Dittmar, H. (2012). The relationship of materialism to debt and financial well-being: The case of Iceland's perceived prosperity. *JOURNAL OF ECONOMIC PSYCHOLOGY*, *33*(3), 471–481. https://doi.org/10.1016/j.joep.2011.12.008

Garg, N., Priyadarshi, P., & Malik, A. (2024). Financial well-being: An integrated framework, operationalization, and future research agenda. *JOURNAL OF CONSUMER BEHAVIOUR*, *23*(6), 3194–3212. https://doi.org/10.1002/cb.2372

Gavard-Perret, M.-L., Gotteland, D., Haon, C., & Jolibert, A. (2012). *Méthodologie de la recherche: Réussir son mémoire ou sa thèse en sciences de gestion*. Pearson Education France. https://www.pearson.fr/livre/?GCOI=27440100848410

George, D., & Mallery, P. (2003). *SPSS for Windows Step by Step: A Simple Guide and Reference* (4th ed.). Allyn & Bacon.

Gerrans, P., Speelman, C., & Campitelli, G. (2014). Financial well-being, financial education and retirement planning in Australia. *Financial Services Review*, *23*(3), 163–181.

Ghana Statistical Service. (2015). *Ghana living standards survey round 6 (GLSS 6): Poverty profile in Ghana*. Ghana Statistical Service.

Ghazali, M. F. A., Rahim, N. A., Omar, N., & Azmi, N. M. (2020). Financial Well-Being among Malaysian Young Adults: The Role of Financial Literacy and Financial Behavior. *International Journal of Academic Research in Business and Social Sciences*, *10*(3), 430–440. https://doi.org/10.6007/IJARBSS/v10-i3/7088

Glenn, N. M., Yashadhana, A., Jaques, K., Belon, A., de Leeuw, E., Nykiforuk, C. I. J., & Harris, P. (2023). The Generative Mechanisms of Financial Strain and Financial Well-Being: A Critical Realist Analysis of Ideology and Difference. *International*

Journal of Health Policy and Management, *12*(1), 1–11. https://doi.org/10.34172/ijhpm.2022.6930

Gonçalves. (2021). Digital Finance and Financial Inclusion in Developing Economies. *Journal of Financial Inclusion Studies*, *12*(1), 45–63.

Gonçalves, V., Ponchio, M., & Basílio, R. (2021). Women's financial well-being: A systematic literature review and directions for future research. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES*, *45*(4), 824–843. https://doi.org/10.1111/ijcs.12673

Gough, I. (2001). *Global Capital, Human Needs and Social Policies: Selected Essays, 1994–99*. Palgrave Macmillan. https://link.springer.com/book/10.1057/9780230502095

Greninger, S. A., Hampton, V. L., Kitt, K. A., & Jacquet, S. M. (1996). Financial Management Styles. *Journal of Financial Counseling and Planning*, *7*(1), 54–66.

Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*, *111*, 84–96. https://doi.org/10.1016/j.worlddev.2018.06.020

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 105–117). Sage Publications.

Gudmunson, C. G., & Danes, S. M. (2011). Family Financial Socialization: Theory and Critical Review. *Journal of Family and Economic Issues*, *32*(4), 644–667. https://doi.org/10.1007/s10834-011-9275-y

Guo, B., & Huang, J. (2023). Financial Well-Being and Financial Capability among Low-Income Entrepreneurs. *Journal of Risk and Financial Management*, *16*(3), 181. https://doi.org/10.3390/jrfm16030181

Guo, C., Arnould, E. J., Gruen, T. W., & Tang, C. Z. (2013). Socializing to Co-create Value: The Role of Social Capital. *Journal of the Academy of Marketing Science*, *41*(5), 489–508. https://doi.org/10.1007/s11747-013-0327-0

Guo, L., Arnould, E., Gruen, T., & Tang, C. (2013). Socializing to Co-Produce: Pathways to Consumers' Financial Well-Being. *JOURNAL OF SERVICE RESEARCH*, *16*(4), 549–563. https://doi.org/10.1177/1094670513483904

Gutter, M. S. (2011). *Financial behaviors and financial well-being of college students: Evidence from a national survey*. University of Florida, Department of Family, Youth and Community Sciences.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis* (7th ed.). Pearson.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). SAGE Publications.

Hall, O. C., & Runyan, W. M. (1968). An Experiment in the Measurement of Family Financial Well-being. *Journal of Consumer Affairs*, *2*(1), 1–7. https://doi.org/10.1111/j.1745-6606.1968.tb00181.x

Hameed, Z., Garavan, T., Naeem, R., Burhan, M., Moin, M., & McCabe, T. (2024). Subjective well-being, COVID-19 and financial strain following job loss: Stretching the role of human resource management to focus on human sustainability beyond the workplace. *ASIA PACIFIC JOURNAL OF HUMAN RESOURCES*, *62*(1). https://doi.org/10.1111/1744-7941.12384

Heintz-Martin, V., & Langmeyer, A. (2020). Economic Situation, Financial Strain and Child Wellbeing in Stepfamilies and Single-Parent Families in Germany.

JOURNAL OF FAMILY AND ECONOMIC ISSUES, *41*(2), 238–254. https://doi.org/10.1007/s10834-019-09653-z

Higgins, J. P. T., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, M. J., & Welch, V. A. (2019). *Cochrane Handbook for Systematic Reviews of Interventions* (J. P. T. Higgins, J. Thomas, J. Chandler, M. Cumpston, T. Li, M. J. Page, & V. A. Welch, Eds.). John Wiley & Sons.

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household Financial Management: The Connection Between Knowledge and Behavior. *Federal Reserve Bulletin*, *89*(7), 309–322.

Hoang, D., Nguyen, T., Vuong, N., & Luong, D. (2023). Linking psychological needs, perceived financial well-being and loyalty: The role of commercial banks. *JOURNAL OF FINANCIAL SERVICES MARKETING*, *28*(3), 466–487. https://doi.org/10.1057/s41264-022-00170-z

Huston, S. J. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, *44*(2), 296–316. https://doi.org/10.1111/j.1745-6606.2010.01170.x

Ianole-Calin, R., Hubona, G., Druica, E., & Basu, C. (2021). Understanding sources of financial well-being in Romania: A prerequisite for transformative financial services. *JOURNAL OF SERVICES MARKETING*, *35*(2), 152–168. https://doi.org/10.1108/JSM-02-2019-0100

Indapurkar, K., Pal, A., Tiwari, C., & Mavuri, S. (2024). Exploring Financial Well-being's Impact on Retirement Planning: The Mediating Role of Financial Attitude. *FIIB BUSINESS REVIEW*. https://doi.org/10.1177/23197145241244620

Ingale, K. K., & Paluri, R. A. (2020). Financial Literacy and Financial Behaviour: A Bibliometric Analysis. *Review of Behavioral Finance*, *14*(1), 130–154. https://doi.org/10.1108/RBF-06-2020-0141

International Fund for Agricultural Development (IFAD). (2023). *IFAD Annual Report 2022*. IFAD. https://www.ifad.org/en/annual-report-2022

Investopedia. (2025). *"Soft Saving:" Why Gen Z Is Trading Future Wealth for Present Happiness*. https://www.investopedia.com/soft-saving-gen-z-11721075

Jackson, P. W., & Fransman, J. (2018). Engaged excellence in research: A new model for global development. *Journal of Development Studies*, *54*(10), 1754–1769. https://doi.org/10.1080/00220388.2018.1437455

Joo, S. (2008). Personal Financial Wellness. In J. J. Xiao (Ed.), *Handbook of Consumer Finance Research* (pp. 21–33). Springer New York. https://doi.org/10.1007/978-0-387-75734-6_2

Joo, S.-H. (2004). Personal financial wellness. *Journal of Financial Counseling and Planning*, *15*(1), 73–82.

Joo, S.-H., & Grable, J. (2004a). An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, *25*(1), 25–50. https://doi.org/10.1023/B:JEEI.0000016722.37994.9f

Joo, S.-H., & Grable, J. E. (2004b). An Exploratory Framework of the Determinants of Financial Satisfaction. *Journal of Family and Economic Issues*, *25*(1), 25–50. https://doi.org/10.1023/B:JEEI.0000016722.37994.9f

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Sciences*, *107*(38), 16489–16493. https://doi.org/10.1073/pnas.1011492107

Kamaliah, Aunurrafiq, Badriyah, N., & Seti, S. (2024). Self management and entrepreneurial mindset to support the MSMEs owner's financial well-being. *COGENT BUSINESS & MANAGEMENT*, *11*(1). https://doi.org/10.1080/23311975.2023.2290724

Katona, G. (1975). *Psychological Economics*. Elsevier.

Kaur, G., & Singh, M. (2024). Pathways to Individual Financial Well-Being: Conceptual Framework and Future Research Agenda. *FIIB BUSINESS REVIEW*, *13*(1), 27–41. https://doi.org/10.1177/23197145221105947

Kaur, J., Singh, R., & Kaur, A. (2021). Financial Literacy and Financial Well-Being: A Study of Indian Households. *Journal of Economics and Finance*, *45*(3), 445–458. https://doi.org/10.1007/s12197-020-09524-5

Kempson, E., Finney, A., & Poppe, C. (2016). *Financial Well-being: A Conceptual Model and Preliminary Analysis*. Oslo and Akershus University College of Applied Sciences, Consumption Research Norway (SIFO). https://oda.oslomet.no/oda-xmlui/handle/10642/3275

Kempson, E., Finney, A., & Poppe, C. (2017). Financial well-being a conceptual model and preliminary analysis. *Final Edition: Project Note*, *3*.

Kempson, E., & Poppe, C. (2018). *Understanding financial well-being and capability – A revised model and comprehensive analysis*. Consumption Research Norway (SIFO), OsloMet. https://oda.oslomet.no/oda-xmlui/handle/10642/7059

Keyes, C. L. M. (2002). The Mental Health Continuum: From Languishing to Flourishing in Life. *Journal of Health and Social Behavior*, *43*(2), 207–222. https://doi.org/10.2307/3090197

Kim, J., & Chatterjee, S. (2013). Childhood Financial Socialization and Young Adults' Financial Management. *Journal of Financial Counseling and Planning*, *24*(1), 61–79.

Kim, J., Garman, E. T., & Sorhaindo, B. (2018). Relationships Among Credit Counseling Clients' Financial Well-Being, Financial Behaviors, Financial Stressor Events, and Health. *Financial Counseling and Planning*, *29*(2), 208–220.

Kim, K., & Lee, J. (2025). Financial well-being, anxiety and payment delinquency among student loan holders in the United States: Insights from the COVID-19 pandemic. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *43*(2), 424–445. https://doi.org/10.1108/IJBM-05-2024-0277

Kish, L. (1965). Survey sampling. New york: John wesley & sons. *Am Polit Sci Rev*, *59*(4), 1025.

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). The Guilford Press.

Kulshreshtha, A., Raju, S., Muktineni, S., & Chatterjee, D. (2023). Income shock and financial well-being in the COVID-19 pandemic: Financial resilience and psychological resilience as mediators. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *41*(5), 1037–1058. https://doi.org/10.1108/IJBM-08-2022-0342

Kumar, J., Rani, V., Rani, G., & Sarker, T. (2023). Determinants of the financial wellbeing of individuals in an emerging economy: An empirical study. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *41*(4), 860–881. https://doi.org/10.1108/IJBM-10-2022-0475

Kumar, R. (2024). Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal of Financial Services Marketing*, *29*(2), 123–135. https://doi.org/10.1057/s41264-022-00183-8

Kumar Singh, R., & Sharma, V. (2021). A comparative evaluation of Scopus, WoS and Dimensions for bibliometric analysis. *Scientometrics*, *126*, 9421–9442. https://doi.org/10.1007/s11192-021-04014-1

Lacombe, D. J., & Khatun, F. (2022). Financial Inclusion and Human Development: Evidence from Panel Data. *Review of Development Finance*, *12*(1), 58–67. https://doi.org/10.1016/j.rdf.2022.04.001

Ladha, T., Asrow, K., Parker, S., Rhyne, E., & Kelly, S. (2017). Beyond financial inclusion: Financial health as a global framework. *Center for Financial Services Innovation (CFSI) and Center for Financial Inclusion at Accion*.

Laila, N., Ismail, S., Hidzir, P., Ratnasari, R., & Alias, N. (2025). Impact of social trust, social networks, and financial knowledge on financial well-being of micro-entrepreneurs in Malaysia and Indonesia. *COGENT BUSINESS & MANAGEMENT*, *12*(1). https://doi.org/10.1080/23311975.2025.2460614

Lanz, J., Gafner, D., & Zurlinden, M. (2020). Financial well-being: Differences between genders and age groups. *Journal of Financial Counseling and Planning*, *31*(1), 140–154. https://doi.org/10.1891/JFCP-19-00010

Larrimore, J. (2025). Evaluating the effects of geographic adjustments on poverty measures using self-reported financial well-being. *JOURNAL OF POLICY ANALYSIS AND MANAGEMENT*, *44*(1), 295–303. https://doi.org/10.1002/pam.22633

Lee, J., Lee, J., & Kim, K. (2020). Consumer Financial Well-Being: Knowledge is Not Enough. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*, *41*(2), 218–228. https://doi.org/10.1007/s10834-019-09649-9

Limbu, Y. B., & Sato, S. (2019). The impact of customer self-construal on attitude and intention toward mobile banking. *Journal of Retailing and Consumer Services*, *47*, 120–132. https://doi.org/10.1016/j.jretconser.2018.11.005

Limbu, Y., & Sato, S. (2019). Credit card literacy and financial well-being of college students A moderated mediation model of self-efficacy and credit card number. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *37*(4), 991–1003. https://doi.org/10.1108/IJBM-04-2018-0082

Lohr, S. L. (2021). *Sampling: Design and analysis*. Chapman and Hall/CRC.

Losada-Otalora, M., Garcés, C., Juliao-Rossi, J., Donado, P., & Ramírez, E. (2020). Enhancing customer knowledge: The role of banks in financial well-being. *JOURNAL OF SERVICE THEORY AND PRACTICE*, *30*(4–5), 459–482. https://doi.org/10.1108/JSTP-09-2017-0176

Lusardi, A. (2015). Financial Literacy: Do People Know the ABCs of Finance? *Public Understanding of Science*, *24*(3), 260–271. https://doi.org/10.1177/0963662514564516

Lusardi, A. (2019). Financial Literacy and the Need for Financial Education: Evidence and Implications. *Swiss Journal of Economics and Statistics*, *155*(1), 1–8. https://doi.org/10.1186/s41937-019-0027-5

Lusardi, A., & Mitchell, O. S. (2014a). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A., & Mitchell, O. S. (2014b). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Lv, Y., Chen, Y., & Yang, X. (2021). Financial well-being and its measurement: A bibliometric approach. *Journal of Behavioral and Experimental Finance*, *30*, 100456. https://doi.org/10.1016/j.jbef.2021.100456

Madero-Cabib, I., & Fasang, A. E. (2016). Gendered Work–Family Life Courses and Financial Well-Being in Retirement. *Advances in Life Course Research*, *27*, 43–60. https://doi.org/10.1016/j.alcr.2015.11.002

Mahdzan, N. S., Zainudin, R., & Au, S. P. (2019). The impact of financial literacy on individual saving: An exploratory study in the Malaysian context. *Transformations in Business & Economics*, *18*(2), 140–155.

Mahendru, M. (2000). Financial education and well-being: An emerging concern. *Indian Journal of Finance*, *6*(4), 45–56.

Mahendru, M. (2020). Financial literacy and financial well-being: Evidence from India. *Asia-Pacific Journal of Management Research and Innovation*, *16*(1), 1–10. https://doi.org/10.1177/2319510X19898235

Mahendru, M. (2021a). Financial well-being for a sustainable society: A road less travelled. *QUALITATIVE RESEARCH IN ORGANIZATIONS AND MANAGEMENT*, *16*(3–4), 572–593. https://doi.org/10.1108/QROM-03-2020-1910

Mahendru, M. (2021b). Financial well-being for a sustainable society: A road less travelled. *QUALITATIVE RESEARCH IN ORGANIZATIONS AND MANAGEMENT*, *16*(3–4), 572–593. https://doi.org/10.1108/QROM-03-2020-1910

Mahendru, M. (2021c). Financial well-being for a sustainable society: A road less travelled. *Qualitative Research in Organizations and Management*, *16*(3/4), 572–593. https://doi.org/10.1108/QROM-03-2020-1910

Mahendru, M., Sharma, G., Pereira, V., Gupta, M., & Mundi, H. (2022). Is it all about money honey? Analyzing and mapping financial well-being research and identifying future research agenda. *JOURNAL OF BUSINESS RESEARCH*, *150*, 417–436. https://doi.org/10.1016/j.jbusres.2022.06.034

Maherni, N. (2020). *Financial Inclusion and Economic Development in MENA Region: A Gender Perspective*. University of Algiers 3.

Malone, E., Dooley, J. J., & Bradbury, J. A. (2010). Moving from explanations to potential solutions: Evaluating the effectiveness of carbon capture and storage communications. *International Journal of Greenhouse Gas Control*, *4*(2), 356–361. https://doi.org/10.1016/j.ijggc.2009.09.001

Malque. (2024). Artificial Intelligence in Financial Risk Assessment. *Journal of Finance and Technology*, *19*(3), 77–93.

Mani, M., & Mishra, S. K. (2022). Financial Well-being and Its Psychological Determinants—An Emerging Country Perspective. *FIIB Business Review*. https://doi.org/10.1177/23197145221121080

Marzi. (2025). Financial Technologies and Economic Resilience Post-Crisis. *Journal of Emerging Financial Markets*, *16*(1), 55–72.

Marzi, G., Ciappei, C., Caputo, A., & Garzella, S. (2025). A forward-looking perspective on financial well-being research: Emerging themes and future directions. *Journal of Business Research*, *168*, 114092. https://doi.org/10.1016/j.jbusres.2023.114092

Mathew, V., Kumar, P., & Sanjeev, M. (2024). Financial Well-being and Its Psychological Determinants- An Emerging Country Perspective. *FIIB BUSINESS REVIEW*, *13*(1), 42–55. https://doi.org/10.1177/23197145221121080

Mende, M., & van Doorn, J. (2015). Coproduction of Transformative Services as a Pathway to Improved Consumer Well-Being: Findings From a Longitudinal Study on Financial Counseling. *JOURNAL OF SERVICE RESEARCH*, *18*(3), 351–368. https://doi.org/10.1177/1094670514559001

Miecinskiene, A., Stankeviciene, J., Jureviciene, D., Taujanskaite, K., Danileviciene, I., & Gudelyte-Zilinskiene, L. (2023). THE ROLE OF FINANCIAL INTELLIGENCE QUOTIENT AND FINANCIAL LITERACY FOR PAVING A PATH TOWARDS FINANCIAL WELL-BEING. *JOURNAL OF BUSINESS ECONOMICS AND MANAGEMENT*, *24*(5), 901–922. https://doi.org/10.3846/jbem.2023.20648

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *PLoS Medicine*, *6*(7), e1000097. https://doi.org/10.1371/journal.pmed.1000097

Mongeon, P., & Paul-Hus, A. (2016). The journal coverage of Web of Science and Scopus: A comparative analysis. *Scientometrics*, *106*, 213–228. https://doi.org/10.1007/s11192-015-1765-5

Mountain, T. P., Kim, N., Serido, J., & Shim, S. (2021). Does type of financial learning matter for young adults' objective financial knowledge and financial behaviors? A longitudinal and mediation analysis. *Journal of Family and Economic Issues*, *42*(1), 113–132. https://doi.org/10.1007/s10834-020-09730-8

Muir, K., Hamilton, M., Noone, J., Marjolin, A., Salignac, F., & Saunders, P. (2017). *Exploring financial wellbeing in the Australian context*. Centre for Social Impact & Social Policy Research Centre – University of New South Wales Sydney. http://hdl.handle.net/1959.4/unsworks_46552

Mukherjee. (2022). Credit Scoring Innovations in Digital Lending Platforms. *FinTech Innovations Journal*, *7*(2), 34–49.

Mulrow. (1994). Rationale for systematic reviews. *BMJ*, *309*(6954), 597–599. https://doi.org/10.1136/bmj.309.6954.597

Mundi, H., Vashisht, S., & Rao, M. (2025). A qualitative investigation into financial well-being and social capital of retired government school teachers. *QUALITATIVE RESEARCH IN FINANCIAL MARKETS*, *17*(3), 576–603. https://doi.org/10.1108/QRFM-10-2023-0250

Nanda, A., & Banerjee, R. (2021). Consumer's subjective financial well-being: A systematic review and research agenda. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES*, *45*(4), 750–776. https://doi.org/10.1111/ijcs.12668

National Center for Health Statistics. (2019). *Health, United States, 2018*. National Center for Health Statistics.

Negi, P., Jaiswal, A., & Nathani, N. (2025). Influence of green practices on environmental consciousness of management students for perceived financial well-being. *INTERNATIONAL JOURNAL OF MANAGEMENT EDUCATION*, *23*(1). https://doi.org/10.1016/j.ijme.2024.101091

Netemeyer, R., Warmath, D., Fernandes, D., & Lynch, J. (2018a). How Am I Doing? Perceived Financial Well-Being, Its Potential Antecedents, and Its Relation to Overall Well-Being. *JOURNAL OF CONSUMER RESEARCH*, *45*(1), 68–89. https://doi.org/10.1093/jcr/ucx109

Netemeyer, R., Warmath, D., Fernandes, D., & Lynch, J. (2018b). How Am I Doing? Perceived Financial Well-Being, Its Potential Antecedents, and Its Relation to Overall Well-Being. *JOURNAL OF CONSUMER RESEARCH*, *45*(1), 68–89. https://doi.org/10.1093/jcr/ucx109

Nga, J., & Kesumo, A. (2025). Does shared prosperity affect perceived financial well-being among individual consumers? *ASIA-PACIFIC JOURNAL OF BUSINESS ADMINISTRATION*. https://doi.org/10.1108/APJBA-07-2024-0362

Ngamaba, K., Armitage, C., Panagioti, M., & Hodkinson, A. (2020). How closely related are financial satisfaction and subjective well-being? Systematic review and meta-analysis. *JOURNAL OF BEHAVIORAL AND EXPERIMENTAL ECONOMICS*, *85*. https://doi.org/10.1016/j.socec.2020.101522

Norvilitis, J. M., & Mendes-Da-Silva, W. (2013). Attitudes Toward Credit and Finances Among College Students in Brazil and the United States. *Journal of Business Theory and Practice*, *1*(1), 132–151.

Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P., & Kamas, M. M. (2006). Personality Factors, Money Attitudes, Financial Knowledge, and Credit-Card Debt in College Students. *Journal of Applied Social Psychology*, *36*(6), 1395–1413. https://doi.org/10.1111/j.0021-9029.2006.00065.x

Nutassey, V., Frimpong, S., Agyei, S., & Amoako, D. (2024). Financial literacy induced financial well-being in Ghana: Does financial inclusion mediate? *THUNDERBIRD INTERNATIONAL BUSINESS REVIEW*, *66*(4), 325–337. https://doi.org/10.1002/tie.22381

O'Connor, G. E., & Kabadayi, S. (2021). Exploring the antecedents of financial well-being: Where we are and where we go from here. *International Journal of Bank Marketing*, *39*(3), 1–10. https://doi.org/10.1108/IJBM-04-2020-0212

OECD. (2017). *How's Life? 2017: Measuring Well-Being*. OECD Publishing. https://doi.org/10.1787/how_life-2017-en

OECD. (2021). *G20/OECD-INFE Report on Supporting Financial Resilience and Transformation through Digital Financial Literacy*. OECD Publishing. https://doi.org/10.1787/0132c06d-en

OECD. (2022). *OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion*. OECD Publishing. https://www.oecd.org/financial/education/Toolkit-for-measuring-financial-literacy-and-financial-inclusion.htm

OECD. (2023). *OECD/INFE Toolkit for Measuring Financial Literacy and Financial Inclusion: Updated 2022 Edition*. OECD Publishing. https://www.oecd.org/financial/education/oecd-infe-toolkit-measuring-financial-literacy.htm

OECD. (2024). *Advancing Financial Inclusion through Digital Financial Literacy*. https://www.oecd.org/finance/advancing-financial-inclusion-through-digital-financial-literacy.pdf

O'Neill, B., Sorhaindo, B., Xiao, J. J., & Garman, E. T. (2005). Financially Distressed Consumers: Their Financial Practices, Financial Well-being, and Health. *Financial Counseling and Planning*, *16*(1), 73–87.

Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan—A web and mobile app for systematic reviews. *Systematic Reviews*, *5*, 210. https://doi.org/10.1186/s13643-016-0384-4

Özen, E. (2021). New challenges for future sustainability and wellbeing. *International Journal of Sustainable Development*, *24*(2), 1–15. https://doi.org/10.1504/IJSD.2021.10012345

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, M., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. https://doi.org/10.1136/bmj.n71

Panisch, L. S., Hunt, A. N., & Hicks, A. M. (2019). College Students' Financial Wellness: An Ecological Systems Approach. *Journal of Family and Economic Issues*, *40*(3), 394–408. https://doi.org/10.1007/s10834-019-09618-0

Parker, S., Castillo, N., Garon, T., & Levy, R. (2016). Eight ways to measure financial health. *Chicago: Center for Financial Services Innovation*.

Paylan, M. A. (2021). A study on determining the moderated mediation effect of consumer confidence between perceived financial well-being, prosocial consumer ethnocentrism tendencies and domestic product purchasing behavior. *Journal of Islamic Marketing*, *12*(1), 1–20. https://doi.org/10.1108/JIMA-12-2019-0254

Perry, V. G., & Morris, M. D. (2005). Who Is in Control? The Role of Self-Perception, Knowledge, and Income in Explaining Consumer Financial Behavior. *Journal of Consumer Affairs*, *39*(2), 299–313. https://doi.org/10.1111/j.1745-6606.2005.00016.x

Petticrew, M., & Roberts, H. (2006). *Systematic Reviews in the Social Sciences: A Practical Guide*. Blackwell Publishing. https://doi.org/10.1002/9780470754887

Phelps, N., & Metzler, A. (2025). The Effects of Financial Knowledge, Skill, and Self-Assessed Knowledge on Financial Well-Being, Behavior, and Objective Situation. *INTERNATIONAL JOURNAL OF FINANCIAL STUDIES*, *13*(1). https://doi.org/10.3390/ijfs13010044

Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard University Press. https://doi.org/10.4159/9780674369542

Ponchio, M., Cordeiro, R., & Gonçalves, V. (2019). Personal factors as antecedents of perceived financial well-being: Evidence from Brazil. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *37*(4), 1004–1024. https://doi.org/10.1108/IJBM-03-2018-0077

Ponchio, M., Rohden, S., & Mette, F. (2022). PERCEIVED FINANCIAL WELL-BEING AS ANTECEDENT OF PSYCHOLOGICAL WELL-BEING: EVIDENCE FROM BRAZIL. *REVISTA BRASILEIRA DE MARKETING*, *21*(5), 1631–1676. https://doi.org/10.5585/remark.v21i5.21579

Porter, N. M., & Garman, E. T. (1992). An exploratory investigation of financial management behaviors and relationship satisfaction. *Financial Counseling and Planning*, *3*, 13–26.

Porter, N. M., & Garman, E. T. (1993). The Detection and Measurement of the Impact of Personal Financial Literacy and Financial Behavior on Financial Well-Being. *Journal of Financial Counseling and Planning*, *4*(1), 25–43.

Prawitz, A. D., Garman, E. T., Sorhaindo, B., O'Neill, B., Kim, J., & Drentea, P. (2006). InCharge Financial Distress/Financial Well-Being Scale: Development, Administration, and Score Interpretation. *Financial Counseling and Planning*, *17*(1), 34–50.

Punch, K. F. (2013). *Introduction to Social Research: Quantitative and Qualitative Approaches* (3rd ed.). SAGE Publications. https://uk.sagepub.com/en-gb/eur/introduction-to-social-research/book237059

R Core Team. (2019). *R: A language and environment for statistical computing* [Computer software]. R Foundation for Statistical Computing. https://www.R-project.org/

Rakhrour, M., & Daham, B. (2021). Financial Inclusion and Economic Growth in Algeria: An Empirical Study. *Revue Des Sciences Commerciales*, *20*(2), 145–160.

Ranta, M., Li, L., Vosylis, R., Sorgente, A., Crespo, C., Fonseca, G., Lanz, M., Lep, Z., Lonka, K., Relvas, A., Salmela-Aro, K., Zupancic, M., & Serido, J. (2024). Financial Loss and Financial Well-Being of Emerging Adults During COVID-19: The Limitations of Psychological Resilience. *JOURNAL OF FINANCIAL COUNSELING AND PLANNING*, *35*(2), 188–201. https://doi.org/10.1891/JFCP-2022-0088

Ranta, M., & Salmela-Aro, K. (2017). Young adults' personal financial well-being: A multidimensional approach. *Journal of Economic Psychology*, *62*, 98–111. https://doi.org/10.1016/j.joep.2017.06.005

Ranyard, R., Mcnair, S., Nicolini, G., & Wilson, C. (2020). An item response theory approach to constructing and evaluating brief and in-depth financial literacy scales. *Journal of Consumer Affairs*, *54*(3), 1121–1156. https://doi.org/10.1111/joca.12322

Rea, J., Danes, S., Serido, J., Borden, L., & Shim, S. (2019). "Being Able to Support Yourself": Young Adults' Meaning of Financial Well-Being Through Family Financial Socialization. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*, *40*(2), 250–268. https://doi.org/10.1007/s10834-018-9602-7

Research Trends. (2008). What is bibliometrics? *Research Trends*, *6*, 1–4.

Riitsalu, L. (2022). Financial well-being: Measurement and antecedents. *Journal of Economic Psychology*, *87*. https://doi.org/10.1016/j.joep.2021.102462

Riitsalu, L. (2023). The role of financial literacy in financial well-being: A meta-analysis. *Journal of Behavioral Finance*, *24*(1), 1–15.

Riitsalu, L., & Murakas, R. (2019). Subjective financial knowledge, prudent behaviour and income The predictors of financial well-being in Estonia. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *37*(4), 934–950. https://doi.org/10.1108/IJBM-03-2018-0071

Riitsalu, L., Sulg, R., Lindal, H., Remmik, M., & Vain, K. (2024). From Security to Freedom- The Meaning of Financial Well-being Changes with Age. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*, *45*(1), 56–69. https://doi.org/10.1007/s10834-023-09886-z

Rubio, A., Rubio, A., & Moreno, J. (2022). Factors Associated with Financial Ratios and Financial Well-Being of Hispanic Households: A Comparison With White Households. *JOURNAL OF FINANCIAL COUNSELING AND PLANNING*, *33*(1), 126–139. https://doi.org/10.1891/JFCP-2021-0028

Sabri, M. F., & Aw, E. L. (2019). Factors Contributing to Procrastination Behavior on Financial Management among University Students. *Malaysian Journal of Consumer and Family Economics*, *22*(1), 167–187.

Sabri, M. F., & Falahati, L. (2012). An Exploratory Study of Personal Financial Wellbeing Determinants: Evidence from Malaysia. *Asian Social Science*, *8*(13), 17–26. https://doi.org/10.5539/ass.v8n13p17

Sabri, M. F., & MacDonald, M. (2012). Savings behavior and financial problems among college students: The role of financial literacy in Malaysia. *International Journal of Business and Social Science*, *3*(16), 50–59.

Salignac, F., Muir, K., Hamilton, M., & Noone, J. (2020). Conceptualizing and measuring financial wellbeing: A critical review and agenda for future research. *Social Indicators Research*, *148*(1), 1–28. https://doi.org/10.1007/s11205-019-02176-4

Samuelson, P. A., & Nordhaus, W. D. (2004). *Economics* (18, Ed.). McGraw-Hill Education.

Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial Least Squares Structural Equation Modeling. In C. Homburg, M. Klarmann, & A. E. Vomberg (Eds.), *Handbook of Market Research*. Springer.

Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students* (6th ed.). Pearson Education.

Saurabh, K., & Nandan, T. (2018). Role of Financial Risk Attitude and Financial Behavior as Mediators in Financial Satisfaction: Empirical Evidence from India. *South Asian Journal of Business Studies*, *7*(2), 207–224. https://doi.org/10.1108/SAJBS-07-2017-0088

Secinaro, S., Calandra, D., Meoli, M., & Schiuma, G. (2020). Artificial intelligence and big data analytics in healthcare: A bibliometric review. *International Journal of*

Environmental Research and Public Health, *17*(21), 7804. https://doi.org/10.3390/ijerph17217804

Secinaro, S., Calandra, D., Meoli, M., & Schiuma, G. (2021). Digital transformation and business model innovation: A systematic literature review. *Sustainability*, *13*(14), 7634. https://doi.org/10.3390/su13147634

Sen, A. (1993). Capability and Well-Being. In M. Nussbaum & A. Sen (Eds.), *The Quality of Life* (pp. 30–53). Clarendon Press. https://doi.org/10.1093/0198287976.003.0005

Serido, J., & Shim, S. (2020). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Journal of Family and Economic Issues*, *41*(1), 1–10. https://doi.org/10.1007/s10834-019-09636-2

Serido, J., & Shim, S. (2023). The meaning of financial well-being changes with age. *Journal of Family and Economic Issues*, *44*(1), 1–15. https://doi.org/10.1007/s10834-023-09886-z

Serido, J., Shim, S., & Tang, C. (2013). A developmental model of financial capability: A framework for promoting a successful transition to adulthood. *International Journal of Behavioral Development*, *37*(4), 287–297. https://doi.org/10.1177/0165025413479476

Serido, J., Shim, S., & Xiao, J. J. (2010). Financial parenting, financial coping behaviors, and well-being of emerging adults. *Family Relations*, *59*(4), 453–464. https://doi.org/10.1111/j.1741-3729.2010.00615.x

Sharma, G. (2019). Financial well-being and policy implications: A comprehensive review. *Journal of Economic Perspectives*, *33*(2), 123–138.

Sharma, V. (2021). A comparative evaluation of Scopus, WoS and Dimensions for bibliometric analysis. *Scientometrics*, *126*, 9421–9442. https://doi.org/10.1007/s11192-021-04014-1

She, L., Ma, L., Sharif, S., & Karim, S. (2024). Millennials' financial behaviour and financial well-being: The moderating role of future orientation. *JOURNAL OF FINANCIAL SERVICES MARKETING*, *29*(4), 1207–1224. https://doi.org/10.1057/s41264-024-00281-9

She, L., Rasiah, R., Turner, J., Guptan, V., & Nia, H. (2022). Psychological beliefs and financial well-being among working adults: The mediating role of financial behaviour. *INTERNATIONAL JOURNAL OF SOCIAL ECONOMICS*, *49*(2), 190–209. https://doi.org/10.1108/IJSE-07-2021-0389

She, Q. (2023). Financial well-being and mental health: A longitudinal study. *Journal of Financial Therapy*, *14*(2), 45–67.

Sherraden, M. S. (2013). Building Blocks of Financial Capability. In J. M. Birkenmaier, M. S. Sherraden, & J. Curley (Eds.), *Financial Capability and Asset Building: Research, Education, Policy, and Practice* (pp. 3–43). Oxford University Press. https://academic.oup.com/book/4701/chapter/146898893

Sherraden, M., Slosar, B., & Sherraden, M. (2015). Financial Capability and Asset Building for All. *American Behavioral Scientist*, *59*(2), 232–248. https://doi.org/10.1177/0002764214550288

Shim, S., Barber, B. L., Card, N. A., Xiao, J. J., & Serido, J. (2009). Financial socialization of first-year college students: The roles of parents, work, and education. *Journal of Youth and Adolescence*, *38*(6), 613–626. https://doi.org/10.1007/s10964-008-9354-x

Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to Life Success: A Conceptual Model of Financial Well-Being for Young Adults. *Journal of Applied Developmental Psychology*, *30*(6), 708–723. https://doi.org/10.1016/j.appdev.2009.02.003

Shrestha, B. K., & Sharma, L. R. (2024). Discerning the distinctive characteristics of key research paradigms and their constituents. *Nepal Journal of Multidisciplinary Research*, *7*(2), 30–44. https://doi.org/10.3126/njmr.v7i2.68191

Silber, D., Hoffmann, A., & Belli, A. (2024). When "good enough" is not good enough: How maximizing benefits financial well-being. *PSYCHOLOGY & MARKETING*, *41*(2), 308–327. https://doi.org/10.1002/mar.21936

Singh, D., & Malik, G. (2022). A systematic and bibliometric review of the financial well-being: Advancements in the current status and future research agenda. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *40*(7), 1575–1609. https://doi.org/10.1108/IJBM-06-2021-0238

Sorgente, A., & Lanz, M. (2017). The protective role of financial satisfaction for well-being in adulthood: A meta-analysis. *Journal of Economic Psychology*, *62*, 103–117. https://doi.org/10.1016/j.joep.2017.06.007

Sorgente, A., & Lanz, M. (2019). Emerging Adulthood and Financial Well-being: A Scoping Review. *International Journal of Adolescence and Youth*, *24*(3), 291–306. https://doi.org/10.1080/02673843.2018.1548360

Stiglitz, J. E. (2012). *The Price of Inequality: How Today's Divided Society Endangers Our Future*. W.W. Norton & Company.

Strömbäck, C., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Economics*, *70*, 7–14. https://doi.org/10.1016/j.socec.2017.07.005

Surendran, S., & Saad, N. (2022). Adoption of Technology: School Location as Moderator. *The Social Sciences*, *12*(7), 1270–1274.

Sweet, E., Nandi, A., Adam, E. K., & McDade, T. W. (2013). The High Price of Debt: Household Financial Debt and Its Impact on Mental and Physical Health. *Social Science & Medicine*, *91*, 94–100. https://doi.org/10.1016/j.socscimed.2013.05.009

Taft, M. K., Hosein Zeraat, G., Mehrizi, M. T., & Rezaei, M. (2013). The Relation between Financial Literacy, Financial Wellbeing and Financial Concerns. *International Journal of Business and Management*, *8*(11), 63–75. https://doi.org/10.5539/ijbm.v8n11p63

TIAA Institute. (2024). *2024 Financial Wellness Survey: Key Findings and Implications*. https://www.tiaainstitute.org/publication/2024-financial-wellness-survey

Tinghög, G., Asutay, E., Barrafrem, K., & Västfjäll, D. (2024). The Effect of COVID-19 on Subjective Financial Well-Being. *JOURNAL OF FINANCIAL COUNSELING AND PLANNING*, *35*(2), 234–243. https://doi.org/10.1891/JFCP-2022-0112

Tomar, S., & Paluri, R. A. (2021). Psychological determinants of retirement financial planning behavior. *Journal of Business Research*, *134*, 638–646. https://doi.org/10.1016/j.jbusres.2021.05.018

Topa, G., Moriano, J. A., & Moreno, A. (2017). Financial Planning for Retirement: A Psychosocial Perspective. *Frontiers in Psychology*, *8*, 2338. https://doi.org/10.3389/fpsyg.2017.02338

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, *14*(3), 207–222.

Tree of Science. (2023). *Tree of Science: Universidad del Rosario*. Universidad del Rosario. https://www.treeofscience.com/

UNCDF. (2021). *Annual Report*. United Nations Capital Development Fund.

UNCDF. (2022). *Delivering Financial Health Globally: A collection of insights, approaches and recommendations*. https://www.uncdf.org/article/8107/delivering-financial-health-globally

UNESCO. (2021). *Global Education Monitoring Report 2021: Inclusion and Education – All Means All* (Nos. 978-92-3-100433–9). UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000373718

United Nations Conference on Trade and Development (UNCTAD). (2023). *UNCTAD Annual Report 2022: Rising to the Challenge – The Transformative Power of Trade in Times of Crisis*. United Nations. https://unctad.org/publication/unctad-annual-report-2022

United Nations Economic Commission for Africa. (2023). *Financial Inclusion in Africa: State, Challenges and Opportunities*. UNECA. https://www.uneca.org/publications/financial-inclusion-in-africa

UNSGSA. (2021a). *Advancing Financial Health through Digital Inclusion*. United Nations Secretary-General's Special Advocate for Inclusive Finance for Development.

UNSGSA. (2021b). *Annual Overview*. United Nations Secretary-General's Special Advocate for Inclusive Finance for Development.

UNSGSA. (2021c). *Financial Health: An Introduction for Financial Sector Policymakers*. https://www.unsgsa.org/publications/financial-health-introduction-financial-sector-policymakers

Utkarsh, Pandey, A., Ashta, A., Spiegelman, E., & Sutan, A. (2020). Catch them young: Impact of financial socialization, financial literacy and attitude towards money on financial well-being of young adults. *INTERNATIONAL JOURNAL OF CONSUMER STUDIES*, *44*(6), 531–541. https://doi.org/10.1111/ijcs.12583

Van Boven, L., Gilovich, T., & Mortensen, D. R. (2017). The Social Costs of Materialism. *Review of General Psychology*, *21*(4), 371–387. https://doi.org/10.1037/gpr0000132

van Eck, N. J., & Waltman, L. (2010). Software Survey: VOSviewer, a Computer Program for Bibliometric Mapping. *Scientometrics*, *84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Van Praag, B. M. S. (2003). Business survival and success of young small business owners. *Small Business Economics*, *21*(1), 1–17. https://doi.org/10.1023/A:1024417420410

van Raaij, W., Riitsalu, L., & Poder, K. (2023). Direct and indirect effects of self-control and future time perspective on financial well-being. *JOURNAL OF ECONOMIC PSYCHOLOGY*, *99*. https://doi.org/10.1016/j.joep.2023.102667

Vargas-Quesada, B., Chinchilla-Rodríguez, Z., & de Moya-Anegón, F. (2017). Tree of Science (ToS): A visualization and classification system for scientific literature. *Scientometrics*, *111*(3), 1893–1905. https://doi.org/10.1007/s11192-017-2318-2

Versal, N., Honchar, I., Balytska, M., & Erastov, V. (2023). HOW DO SAVINGS AND PERSONAL BUDGETING MATTER ON FINANCIAL LITERACY AND WELL-BEING. *BUSINESS MANAGEMENT AND ECONOMICS ENGINEERING*, *21*(2), 190–203. https://doi.org/10.3846/bmee.2023.19062

Vieira, K., Matheis, T., Garcia, G., Klein, L., & de Vargas, S. (2023). ANTECEDENTS OF FINANCIAL WELL-BEING: ARE THE PERCEPTIONS OF THE FINANCIAL SYSTEM AND FINANCIAL KNOWLEDGE RELEVANT?

REVISTA EVIDENCIACAO CONTABIL & FINANCAS, *11*(3), 137–158. https://doi.org/10.22478/ufpb.2318-1001.2023v11n3.60717

Vlaev, I., Elliott, A., Dolan, P., & Hills, S. (2014). The theory and practice of "nudging": Changing health behaviors. *Public Administration Review*, *74*(4), 550–561. https://doi.org/10.1111/puar.12214

Wang, J., Ssewamala, F., Neilands, T., Bermudez, L., Garfinkel, I., Waldfogel, J., Brooks-Gunn, J., & You, J. (2018). Effects of Financial Incentives on Saving Outcomes and Material Well-Being: Evidence From a Randomized Controlled Trial in Uganda. *JOURNAL OF POLICY ANALYSIS AND MANAGEMENT*, *37*(3), 602-+. https://doi.org/10.1002/pam.22065

Wilmarth, M. (2021). Financial and Economic Well-Being: A Decade Review from Journal of Family and Economic Issues. *JOURNAL OF FAMILY AND ECONOMIC ISSUES*, *42*(SUPPL 1), 124–130. https://doi.org/10.1007/s10834-020-09730-8

Wong, K., & Lynn, M. (2020). Credit card cue effect How mere exposure to credit card cues promotes consumers' perceived financial well-being and spending. *INTERNATIONAL JOURNAL OF BANK MARKETING*, *38*(2), 368–383. https://doi.org/10.1108/IJBM-01-2019-0010

World Bank. (2021). *Global Financial Inclusion and Consumer Protection Survey 2021*. World Bank Group. https://www.worldbank.org/en/topic/financialinclusion/publication/global-financial-inclusion-and-consumer-protection-survey-2021

World Bank. (2022). *World Development Report 2022: Finance for an Equitable Recovery*. World Bank Group. https://doi.org/10.1596/978-1-4648-1730-4

World Bank. (2023). *Global Financial Development Report 2023: Financial Inclusion*. https://www.worldbank.org/en/publication/gfdr/2023

WWB. (2024). *A Gender Lens on Financial Well-Being*. Women's World Banking. https://www.womensworldbanking.org/insights/a-gender-lens-on-financial-well-being/

Xiao, J. J. (2016). Applying Behavior Theories to Financial Behavior. *Handbook of Consumer Finance Research*, 69–81. https://doi.org/10.1007/978-3-319-28887-1_7

Xiao, J. J. (2017). Consumer financial capability and financial well-being. *International Journal of Consumer Studies*, *41*(6), 712–721. https://doi.org/10.1111/ijcs.12366

Xiao, J. J. (2023). Financial Well-Being: A Review of Research and Future Directions. *Journal of Financial Counseling and Planning*, *34*(1), 6–17. https://doi.org/10.1891/JFCP-22-0003

Xiao, J. J. (2025). Financial resilience: A scoping review, conceptual synthesis, and theoretical framework. *International Journal of Bank Marketing*. https://doi.org/10.1108/IJBM-12-2024-0735

Xiao, J. J., & O'Neill, B. (2014). Consumer financial education and financial capability. *International Journal of Consumer Studies*, *38*(5), 498–507. https://doi.org/10.1111/ijcs.12102

Xiao, J. J., & O'Neill, B. (2016). Consumer Financial Education and Financial Capability. *International Journal of Consumer Studies*, *40*(6), 712–721. https://doi.org/10.1111/ijcs.12285

Xiao, J. J., & O'Neill, B. (2018). Consumer financial education and financial capability. *International Journal of Consumer Studies*, *42*(6), 712–721. https://doi.org/10.1111/ijcs.12429

Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, *35*(5), 805–817. https://doi.org/10.1108/IJBM-01-2016-0009

Xiao, J., & Porto, N. (2022). Financial capability and wellbeing of vulnerable consumers. *JOURNAL OF CONSUMER AFFAIRS*, *56*(2), 1004–1018. https://doi.org/10.1111/joca.12418

Xu, L., & Zia, B. (2012). *Financial Literacy Around the World: An Overview of the Evidence with Practical Suggestions for the Way Forward* (No. Policy Research Working Paper No. 6107). World Bank. https://openknowledge.worldbank.org/handle/10986/9371

Xue, R., Gepp, A., O'Neill, T., Stern, S., & Vanstone, B. (2020). Financial well-being amongst elderly Australians: The role of consumption patterns and financial literacy. *ACCOUNTING AND FINANCE*, *60*(4), 4361–4386. https://doi.org/10.1111/acfi.12545

Yang, L., & Li, R. (2025). Government governance, family financial support, and financial well-being of the elderly: Evidence from CHARLS Data. *FINANCE RESEARCH LETTERS*, *74*. https://doi.org/10.1016/j.frl.2025.106807

Yang, X. (2021). Financial well-being and its measurement: A bibliometric approach. *Journal of Behavioral and Experimental Finance*, *30*, 100456. https://doi.org/10.1016/j.jbef.2021.100456

Young, J. (2024). The intermix of affect, perception and familism in African American financial well-being. *INTERNATIONAL JOURNAL OF SOCIAL ECONOMICS*. https://doi.org/10.1108/IJSE-07-2023-0515

Zhang, Y., & Cao, J. (2024). Financial well-being and life satisfaction: The mediating role of financial behavior. *Journal of Happiness Studies*.

Zia-ur-Rehman, M., Latif, K., Mohsin, M., Hussain, Z., Baig, S., & Imtiaz, I. (2024). How perceived information transparency and psychological attitude impact on the financial well-being: Mediating role of financial self-efficacy. *BUSINESS PROCESS MANAGEMENT JOURNAL*, *30*(4), 1368–1368. https://doi.org/10.1108/BPMJ-04-2024-0297

Zins, A., & Weill, L. (2016). The Determinants of Financial Inclusion in Africa. *Review of Development Finance*, *6*(1), 46–57. https://doi.org/10.1016/j.rdf.2016.05.001

Zupic, I., & Čater, T. (2015). Bibliometric Methods in Management and Organization. *Organizational Research Methods*, *18*(3), 429–472. https://doi.org/10.1177/1094428114562629

Zyphur, M. J., Islam, G. M., & Treadway, D. C. (2015). Behavioral ethics, decision making, and organizations: A review and future directions. *Journal of Management*, *41*(1), 137–165. https://doi.org/10.1177/0149206314556656

APPENDIXES

APPENDIX A : Questionnaire

Questionnaire sur les déterminants du Bien-être Financier des étudiants de l'ENSM.

Cher(e)s étudiant(e)s,

Dans le cadre de notre mémoire de Master en Management Financier des Entreprises à l'École Nationale Supérieure de Management (Pôle Universitaire de Koléa), nous menons une enquête sur le bien-être financier des étudiants.

Toutes vos réponses seront anonymes, confidentielles et utilisées exclusivement à des fins scientifiques. Votre participation, qui ne prendra que quinze minutes, est précieuse pour la réussite de notre recherche.

Selon le ***Consumer Financial Protection Bureau (CFPB)***, le bien-être financier désigne la capacité à couvrir ses dépenses, à se projeter sereinement dans l'avenir et à faire des choix améliorant sa qualité de vie. Cela signifie pouvoir subvenir à ses besoins essentiels, épargner et vivre sans stress financier (Crésus, 2025).

Nous vous remercions vivement pour votre temps et votre contribution.

عزيزي(تي) الطالب(ة)،

في إطار إعداد مذكرة التخرج لنيل شهادة الماستر في تخصص الإدارة المالية للمؤسسات بالمدرسة الوطنية العليا للمناجمنت – القطب الجامعي بالقليعة، نقوم بإجراء استبيان حول **الرفاهية المالية لدى طلبة التعليم العالي** في هذا القطب الجامعي.

نؤكد لكم أن جميع المعلومات التي سيتم جمعها عبر هذا الاستبيان ستُعامل بسرية تامة، وستُستخدم لأغراض علمية فقط. مشاركتكم لن تستغرق سوى خمسة دقائق، لكنها ضرورية لنجاح هذا البحث.

وفقًا لـ***المكتب الأمريكي لحماية المستهلك المالي(CFPB)*** ، فإن ***الرفاهية المالية*** تعني القدرة على تغطية النفقات اليومية، والشعور بالطمأنينة تجاه المستقبل، والتمتع بحرية اتخاذ قرارات تُحسّن جودة الحياة. أي أن الشخص الذي يتمتع برفاهية مالية جيد يمكنه تلبية احتياجاته الأساسية، الادخار، والعيش دون قلق مالي.

نشكركم جزيل الشكر على وقتكم ومساهمتكم القيمة.

ملاحظة: يُسمح بردّ واحد فقط لكل طالب(ة). هذا الاستبيان مخصّص فقط لطلبة المدرسة الوطنية العليا للمناجمنت.

N.B : Une seule réponse est autorisée pour ce questionnaire. Seuls les étudiants de l'ENSM sont concernés.

Are you a student at ENSM?

هل أنت طالب فيENSM ؟

- ○ Oui
- ○ Non

Êtes-vous familier avec la notion "Bien-être Financier" ou "Financial well-being" ? | هل سمعت من قبل بمفهوم "الرفاهية المالية"

- ○ Oui
- ○ Non

Caractéristiques démographiques | الخصائص الديموغرافية

L'âge | العمر
Merci d'introduire votre âge en chiffre | الرجاء إدخال عمرك بالأرقام

Votre réponse

Genre | الجنس
Une seule réponse est acceptée | يقبل جواب واحد فقط

- ○ Femme | مرأة
- ○ Homme | رجل

Niveau d'étude | المستوى الدراسي
Une seule réponse est acceptée | يقبل جواب واحد فقط

- ○ Master 1| 1 ماستر
- ○ Master 2| 2 ماستر

La spécialité ? | التخصص
Une seule réponse est acceptée | يقبل جواب واحد فقط

- ○ Management Financier des entreprises | MFE
- ○ Entrepreneuriat et management de projets | EMP
- ○ Management stratégique et système d'information | MSSI
- ○ Management de la chaîne logistique| MCL
- ○ Management par la qualité | MPQ
- ○ Management des organisations | MDO
- ○ Management Marketing | MM
- ○ Gouvernement Electronique | E-GOV
- ○ Management des ressources humaines | MRH
- ○ Gouvernance et Lutte Contre la Corruption |GLCC

Zone géographique منطقة السكن *
Une seule réponse est acceptée | يقبل جواب واحد فقط

- ○ Urbain | حضرية
- ○ Rural | ريفية

Bien-être financier | الرفاهية المالية

Sur une échelle de 1 à 5 (1 = Pas du tout d’accord, 5 = Tout à fait d’accord).
على مقياس من 1 إلى 5 (1 = أختلف بشدة، 5 = أوافق بشدة).
Partie 1 : *Dans quelle mesure cette affirmation vous décrit-elle, vous ou votre situation ?*

إلى أي مدى تصفك هذه العبارة أنت أو حالتك؟

Je pourrais faire face à une dépense imprévue importante **يمكنني التعامل مع مصروف غير متوقع وكبير**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

Je sécurise mon avenir financier **أنا أؤمّن مستقبلي المالي**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

À cause de ma situation financière, j'ai l'impression que je n'aurai jamais ce que je veux dans la vie **بسبب وضعي المالي، أشعر أنني لن أحقق ما أريده في حياتي** *

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

Je peux profiter de la vie grâce à la façon dont je gère mon argent **أستطيع الاستمتاع بالحياة بفضل الطريقة التي أدير بها أموال**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

Je m'en sors tout juste financièrement **بالكاد أستطيع تسيير وضعي المالي** *

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

Je suis inquiet/inquiète que l'argent que j'ai ou que j'économiserai ne suffise pas **أنا قلق/قلقة من أن المال الذي أملكه أو سأدخره لن يكفي.** *

Cette affirmation me correspond *هذه العبارة تَصِفني*

Complètement تماما	Très bien جيد جدا	Moyennement إلى حد ما	Très peu قليل جدا	Pas du tout لا على الإطلاق

***Partie 2 :** À quelle fréquence cette affirmation s'applique-t-elle à vous ?*
كم مرة تنطبق عليك هذه العبارة؟

Offrir un cadeau pour un mariage, un anniversaire ou une autre occasion mettrait une pression sur mes finances du mois **تقديم هدية لحفل زفاف أو عيد ميلاد أو مناسبة أخرى قد يُثقل كاهلي ماليًا هذا الشهر***

Cette affirmation me correspond *هذه العبارة تَصِفني*

Toujours دائمًا	Souvent غالبًا	Parfois أحيانًا	Rarement نادرًا	Jamais أبدًا

Je suis en retard dans la gestion de mes finances * **أنا متأخر/ة في ترتيب أموري المالية**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Toujours دائمًا	Souvent غالبًا	Parfois أحيانًا	Rarement نادرًا	Jamais أبدًا

Il me reste de l'argent à la fin du mois **يتبقى لي مال في نهاية الشهر**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Toujours دائمًا	Souvent غالبًا	Parfois أحيانًا	Rarement نادرًا	Jamais أبدًا

Mes finances contrôlent ma vie * **أموالي تتحكم في حياتي**

Cette affirmation me correspond *هذه العبارة تَصِفني*

Toujours دائمًا	Souvent غالبًا	Parfois أحيانًا	Rarement نادرًا	Jamais أبدًا

(*) العبارة التي تحمل النجمة يتم تنقيطها بطريقة عكسية.
(*) Items marked with a star are reverse-scored.
(*) Les items marqués d'une étoile sont cotés de manière inversée.

Connaissances financières | المعرفة المالية

- ***Valeur temporelle de l'argent** – القيمة الزمنية للنقود*

Cinq frères vont recevoir un cadeau de 1 000 DA à partager entre eux. Mais ils doivent attendre un an pour le recevoir, et le taux d'inflation reste à 10%. Dans un an, pourront-ils acheter :

خمسة إخوة سيحصلون على هدية قدرها 10.000 دينار لتقسيمها بينهم، لكن عليهم الانتظار عامًا للحصول عليها، ومعدل التضخم سيبقى عند 10% بعد عام، هل سيتمكنون من شراء :

Une seule réponse est acceptée | يقبل جواب واحد فقط

○ Plus qu'aujourd'hui – أكثر مما يشترونه اليوم

○ Autant qu'aujourd'hui – نفس ما يشترونه اليوم

○ Moins qu'aujourd'hui – أقل مما يشترونه اليوم*[5]

○ Cela dépend de ce qu'ils veulent acheter – هذا يعتمد على ما يريدون شراءه*

- ***Intérêt sur un prêt** – الفائدة على القرض*

Vous prêtez 2500 DA à un ami le soir. Il vous rend 2500 DA le lendemain. Quel intérêt a-t-il payé ?
أقرضت صديقك 2500 دينارًا مساءً، وأعاد لك نفس المبلغ في اليوم التالي. كم دفع من فائدة؟

Une seule réponse est acceptée | يقبل جواب واحد فقط

○ 0 Da*

○ 250 DA

○ 500 DA

- ***Intérêt simple** – الفائدة البسيطة*

Quelqu'un place 100 DA dans un compte d'épargne sans impôt à 2 % d'intérêt annuel. Il n'ajoute ni ne retire d'argent. Combien y aura-t-il dans le compte après un an ?

شخص وضع 100 دينار في حساب توفير بدون ضرائب بنسبة فائدة 2٪ سنويًا، دون إضافة أو سحب مال. كم سيكون المبلغ في الحساب بعد عام؟

Une seule réponse est acceptée | يقبل جواب واحد فقط

○ 102 DA – 102 دينار*

○ 100 DA – 100 دينار

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[5] An asterisk (*) next to an option indicates that it is the correct answer, which is assigned a score of 1; otherwise, the score is 0.

- 105 DA – 105 دنانير

- ***Intérêt composé** – الفائدة المركبة*

Quelqu’un place 100 DA dans un compte d’épargne sans impôt à 2 % d’intérêt annuel. Il n’ajoute ni ne retire d’argent. Combien y aura-t-il dans le compte après 5 ans ?

شخص وضع 100 دينار في حساب توفير بدون ضرائب بنسبة فائدة 2٪ سنويًا، دون إضافة أو سحب مال. كم سيكون المبلغ في الحساب بعد 5 سنوات؟

Une seule réponse est acceptée | يقبل جواب واحد فقط

- Plus de 110 DA – أكثر من 110 دينار*
- Moins de 110 DA – أقل من 110 دينار
- Exactement 110 DA – بالضبط 110 دينار

- ***Risque et rendement** – المخاطر والعوائد*

Un investissement à rendement élevé est généralement plus risqué. الاستثمار ذو العائد المرتفع عادة ما يكون أكثر خطورة.

Une seule réponse est acceptée | يقبل جواب واحد فقط

- Vrai | صحيح*
- Faux | خطأ

- ***L'inflation** | التضخم*

Une inflation élevée signifie que le coût de la vie augmente rapidement. التضخم المرتفع يعني أن تكلفة المعيشة تزداد بسرعة.

Une seule réponse est acceptée | يقبل جواب واحد فقط

- Vrai | صحيح*
- Faux | خطأ

- ***Diversification du risque** – تنويع المخاطر*

On peut réduire le risque d’investissement en bourse en achetant différents types d’actions.
يمكن تقليل خطر الاستثمار في البورصة من خلال شراء أنواع مختلفة من الأسهم.

Une seule réponse est acceptée | يقبل جواب واحد فقط

- ○ Vrai | صحيح*
- ○ Faux | خطأ

Stress financier | القلق المالي

Sur une échelle de 1 à 5 (1 = Pas du tout d’accord, 5 = Tout à fait d’accord).
على مقياس من 1 إلى 5 (1 = أختلف بشدة، 5 = أوافق بشدة).

Je suis inquiet(ète) de ma situation financière. **أشعر بالقلق حيال وضعي المالي.** *Cette affirmation me correspond* *هذه العبارة تَصِفني* 1 2 3 4 5
Je m'inquiète de ma capacité à honorer mes engagements financiers mensuels. **أشعر بالقلق بشأن قدرتي على الوفاء بالالتزامات المالية الشهرية.** *Cette affirmation me correspond* *هذه العبارة تَصِفني* 1 2 3 4 5
.Je m'inquiète de ne pas avoir assez d'argent pour couvrir mes dépenses quotidiennes **أشعر بالقلق حيال توفّر المال الكافي لتغطية نفقاتي اليومية.** *Cette affirmation me correspond* *هذه العبارة تَصِفني* 1 2 3 4 5
Je ressens du stress en pensant au montant total de mes dettes. **أشعر بالتوتر عند التفكير في الديون المترتبة عليّ.** *Cette affirmation me correspond* *هذه العبارة تَصِفني* 1 2 3 4 5
Je suis souvent stressé(e) quand il s'agit d'argent. **كثيرًا ما أشعر بالتوتر عندما يتعلق الأمر بالمال.** *Cette affirmation me correspond* *هذه العبارة تَصِفني* 1 2 3 4 5

Je me sens impuissant(e) face aux problèmes financiers que je rencontre dans ma vie.
أشعر بالعجز في التعامل مع المشكلات المالية التي أواجهها في حياتي.

Cette affirmation me correspond *هذه العبارة تَصِفني*

1	2	3	4	5
○	○	○	○	○

Comportement financier | السلوك المالي

Sur une échelle de 1 à 5 (1 = Pas du tout d'accord, 5 = Tout à fait d'accord).
على مقياس من 1 إلى 5 (1 = أبدًا، 5 = دائمًا).

Je paie mes factures à temps (Internet, etc.).

أقوم بدفع فواتيري في الوقت المحدد (الإنترنت... إلخ).

Cette affirmation me correspond

هذه العبارة تَصِفني

1 2 3 4 5

J'établis un budget mensuel et je m'y tiens pour gérer mes dépenses.

أضع ميزانية شهرية وألتزم بها لإدارة إنفاقي.

Cette affirmation me correspond

هذه العبارة تَصِفني

1 2 3 4 5

Je compare les prix avant de faire un achat important.

أقارن الأسعار قبل إجراء عملية شراء كبيرة.

Cette affirmation me correspond

هذه العبارة تَصِفني

1 2 3 4 5

J'économise régulièrement de l'argent (même une petite somme).

أوفر المال بانتظام (حتى وإن كان المبلغ صغيرًا).

Cette affirmation me correspond

هذه العبارة تَصِفني

1 2 3 4 5

Je planifie mes finances pour l'avenir.

أضع خططًا مالية للمستقبل.

Cette affirmation me correspond

هذه العبارة تَصِفني

1 2 3 4 5

J’évite d’emprunter de l’argent pour des achats non essentiels.
أتجنب الاقتراض من أجل مشتريات غير ضرورية.
Cette affirmation me correspond *هذه العبارة تَصِفني*

1 2 3 4 5

Je m’efforce de respecter mes objectifs financiers. **أحاول الالتزام بأهدافي المالية.**
Cette affirmation me correspond *هذه العبارة تَصِفني*

1 2 3 4 5

Je consulte régulièrement mes relevés financiers. **أراجع بياناتي المالية بشكل منتظم.**
Cette affirmation me correspond *هذه العبارة تَصِفني*

1 2 3 4 5

Facteurs socio-économiques | العوامل الاجتماعية والاقتصادية

Quelle est votre situation d’emploi actuelle, en plus de votre statut d’étudiant ?
ما هي حالتك الوظيفية الحالية إضافة لكونك طالب؟

- Étudiant à temps plein/ طالب بدوام كامل
- Emploi à temps partiel / عمل بدوام جزئي
- Emploi à temps plein / عمل بدوام كامل
- Travail indépendant (freelance, en ligne…) / عمل حر (فريلانس، عبر الإنترنت…)

Quelle est la principale source de votre revenu mensuel ?
ما هو المصدر الرئيسي لدخلك الشهري؟

- Aide parentale ou familiale / دعم من الأهل أو الأسرة
- Emploi étudiant à temps partiel / عمل جزئي للطلاب - Emploi à temps plein / عمل بدوام كامل
- Aucun revenu / بدون دخل
- Petits boulots / أعمال بسيطة غير منتظمة
- Travail indépendant / freelance

Est-ce que votre revenu est stable chaque mois ?
هل دخلك الشهري مستقر؟

- Oui / نعم
- Non / لا

Quel est approximativement votre revenu mensuel personnel (en dinars) ?
ما هو مقدار دخلك الشهري الشخصي تقريبًا (بالدينار)؟ ٣.

- =< 10,000 DZD
- 10,000 – 19,999 DZD
- 20,000 – 29,999 DZD
- = > 30,000 DZD

Quel est votre statut de logement actuel ?
ما هو وضعك السكني الحالي؟ .

- Je vis en location / أعيش في سكن بالإيجار
- Je suis propriétaire de mon logement / أملك السكن الذي أعيش فيه
- Je vis avec mes parents / أعيش مع والديّ
- Je vis dans une résidence universitaire / أعيش في إقامة جامعية

Merci beaucoup pour votre réponse ! ***شكرا جزيلا على اجابتك!***

Envoyer