

How Has Digital Transformation Reshaped Personal Financial Management Behavior Research?

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Abstract. Personal financial management behavior has gained prominence amid economic globalization, digital transformation, and crisis-induced shifts that reshape individual decision-making, budgeting, saving, and risk practices. This study conducts a comprehensive bibliometric analysis to chart the intellectual structure, growth patterns, and future orientations of research in this domain. Drawing on 312 English-language publications from the Scopus database spanning 2000 to 2024, the analysis employs VOSviewer for co-authorship, keyword co-occurrence, and co-citation mapping, complemented by performance metrics on trends and productivity. Findings reveal a marked acceleration in scholarly output, particularly after 2020, driven by heightened attention to digital tools and resilience factors. Thematic clusters highlight progression from foundational literacy and demographic influences to psychological mediators (e.g., self-efficacy, attitudes) and outcomes centered on well-being and socialization. Geographic contributions concentrate in the United States and Indonesia, with strong Asia-Pacific networks, while productive authors form specialized collaborative hubs. The intellectual base integrates behavioral frameworks with empirical applications, underscoring interdisciplinary depth. These insights address fragmentation in prior work by providing a unified knowledge map, revealing gaps in cross-cultural integration and dynamic digital modeling. Implications extend to guiding targeted interventions for financial education and policy, fostering individual resilience in volatile environments. This synthesis supports scholars and practitioners in advancing evidence-based approaches to sustainable personal finance practices.

Keywords: Bibliometric Analysis; Financial Behavior; Fintech Integration; Personal Financial Management; Research Trends.

1. INTRODUCTION

In an increasingly interconnected global economy, individuals face a wider array of financial opportunities and challenges that directly influence their day-to-day management of resources. Economic globalization has broadened access to sophisticated cross-border financial products and digitally mediated markets, enabling greater participation in international investment and transaction systems. However, this expansion also heightens exposure to systemic risks, regulatory differences across jurisdictions, and volatility in global markets, all of which complicate decisions related to budgeting, saving, and investing (Hall et al., 2023). As people navigate these environments, their financial management behavior encompassing practices such as planning expenditures, building reserves, and selecting investment options becomes a key determinant of personal stability amid fluctuating economic conditions.

The COVID-19 pandemic further intensified these dynamics, introducing widespread economic insecurity that affected financial well-being and, consequently, altered routine financial practices (Irianto et al., 2025; Kesuma et al., 2021). Heightened uncertainty during the crisis led to shifts in household priorities, often resulting in reduced confidence in long-

term planning and increased caution in spending or borrowing (Ali & Talha, 2021; Gan et al., 2021; Jariyapan et al., 2022). At the same time, the period accelerated reliance on automated financial tools, platform-based services, robo-advisors, and emerging options like cryptocurrency, reshaping how individuals handled transactions and risk assessment under pressure. These changes highlighted the adaptability of financial management behavior while exposing vulnerabilities, particularly for those with limited buffers against income disruptions or market downturns.

Scholarly examination of these issues has grown steadily since the early 2000s, reflecting broader recognition of the topic's importance in understanding individual responses to economic pressures. Over this period, research output has expanded through systematic reviews, meta-analyses, and bibliometric studies, with digital transformation emerging as a central contextual factor influencing related phenomena (Boubaker et al., 2023; Goyal et al., 2021; Ingale & Paluri, 2022). Contributions increasingly explore how technology facilitates or alters financial decision-making, from mobile banking applications to algorithmic advisory services, often in the context of evolving consumer needs and regulatory frameworks.

Despite this accumulation of knowledge, the literature displays considerable fragmentation. Studies frequently concentrate on adjacent but distinct areas, such as financial literacy levels, retirement planning strategies, or isolated aspects of fintech uptake, without fully integrating core elements of personal financial management behavior (Goyal et al., 2021; Zaimović et al., 2023). This dispersal across sub-domains limits the ability to discern cohesive patterns, particularly regarding how digital mechanisms interact with crisis-induced changes or longstanding psychological influences. Moreover, complex interdisciplinary networks and rapidly shifting knowledge structures make comprehensive overviews difficult to achieve through traditional narrative approaches alone (Martínez-Blasco et al., 2023). Recent global assessments of related fields note surges in publication activity following major disruptions, yet these often remain focused on specific components rather than providing unified evidence of trends encompassing personal financial management constructs, digitalization processes, and crisis contexts (Kumar, 2025; Maulana et al., 2026).

Interdisciplinary perspectives have strengthened explanatory power in this domain by connecting economic and institutional constraints with psychological factors, including anxiety responses, self-efficacy beliefs, and socialization processes, alongside management and technology adoption viewpoints (Goyal et al., 2022, 2023; Henrika et al., 2025). Such integration reveals that financial decisions rarely stem from isolated rational calculations but emerge from interactions among external conditions, internal dispositions, and available tools.

Effective personal financial management behavior thus supports broader outcomes, enhancing individual financial well-being and contributing to household resilience during adverse periods (Ali & Talha, 2021; Ariswati et al., 2025; Santos et al., 2021). At a societal level, sound practices foster sustainable economic development, particularly through digitally enabled finance that promotes inclusion and long-term stability (Dorfleitner & Quỳnh, 2022; Jäger & Schmidt, 2020; Kesuma et al., 2025).

These connections underscore the practical relevance of the field, as robust financial management practices help mitigate the adverse effects of globalization risks and pandemic-like shocks while leveraging technological advancements for positive outcomes. However, the absence of systematic structural mapping represents a critical limitation. Without consolidated insights into publication trajectories, collaboration patterns, influential contributors, and thematic evolution, opportunities to build cumulative understanding are constrained. This gap is particularly pressing in an era where digital platforms continue to transform access and decision processes, and recurring economic uncertainties demand evidence-based guidance for individuals, educators, and policymakers.

Addressing this need requires a methodical approach capable of synthesizing diverse contributions into a coherent knowledge framework. Bibliometric analysis offers such a tool, enabling quantitative examination of citation networks, co-authorship links, and keyword associations to reveal underlying trends and clusters objectively. By applying this method to a broad dataset, researchers can trace the field's progression, identify dominant themes, and highlight areas where integration remains incomplete, especially concerning the interplay of digital innovation, psychological drivers, and crisis resilience (Irianto et al., 2025; Widaryo et al., 2025).

The current study pursues this objective through a detailed bibliometric review of personal financial management behavior research. Drawing on publications from a comprehensive international database spanning 2000 to 2024, it examines growth in scholarly output and its geographic distribution to illustrate the field's expansion and regional emphases. Keyword networks and citation patterns are analyzed to uncover primary thematic clusters and their development over time, shedding light on shifts from traditional influences to contemporary digital and psychological integrations (Korip et al., 2025; Althaf et al., 2025; Wibowo et al., 2026). Finally, the investigation derives recommendations for future directions, pointing toward priorities that address identified gaps and support continued advancement.

This effort aims to provide a clearer intellectual map of the domain, assisting scholars in positioning new work within established foundations and practitioners in developing targeted

interventions. In doing so, it contributes to stronger financial resilience at individual and collective levels, aligning with broader goals of inclusive and sustainable economic progress in a globally connected and digitally driven landscape.

2. LITERATURE REVIEW

Personal financial management behavior (PFMB) refers to the patterns through which individuals handle resources, including budgeting, controlling expenditures, accumulating savings, selecting investments, and addressing risks. Recent studies emphasize its multifaceted character, showing that effective practices depend on a combination of external conditions and internal dispositions rather than technical skills alone.

Socioeconomic and demographic factors emerge as consistent influences on these practices. Income levels and household constraints, such as family size or dependent responsibilities, strongly correlate with planning and management outcomes (Kayode et al., 2022). Higher income often enhances perceived capability to organize finances, fostering greater confidence in decision-making (Larisa et al., 2020). Age, education, employment status, and family structure also contribute to differences in daily financial routines. For instance, productive age groups tend to engage more actively in investment-related activities, while variations in income and educational attainment affect saving tendencies and risk responses (Silinskas et al., 2021). Generational comparisons further reveal distinct profiles, with younger cohorts and households bearing multiple obligations displaying unique challenges in balancing resources amid competing demands. However, comprehensive reviews indicate that demographic and income variables explain only limited variance when psychological elements are accounted for, suggesting their direct role is often mediated or secondary in robust models (Goyal et al., 2021, 2022).

Attitudinal orientations toward money provide additional explanatory power, predicting behaviors even after adjusting for standard demographic controls like age, education, income, and gender (Almeida et al., 2021). These findings highlight the value of joint modeling, where socioeconomic conditions set boundaries while attitudinal and psychological factors drive actual choices within those constraints.

Psychological constructs play a central role in bridging knowledge to action. Domain-specific beliefs, such as financial self-efficacy, act as key links between understanding financial concepts and pursuing well-being-oriented practices (Lone & Bhat, 2022). Locus of control and related self-perceptions similarly influence how individuals approach financial challenges, determining whether outcomes are viewed as within personal reach or subject to external forces

(Goyal et al., 2022). Meta-analytic work reinforces that these internal antecedents account for substantial differences in management patterns, often outperforming purely economic predictors.

Social environments contribute significantly by shaping lasting habits. Family dynamics and broader cultural contexts transmit values through parental modeling and direct financial guidance during formative years, which in turn forecast adult behaviors and overall satisfaction with financial outcomes (LeBaron-Black et al., 2020, 2022). Peer influences and societal norms further reinforce preferences for consumption, debt usage, or reserve building. This socialization process illustrates how early experiences establish foundational routines that persist across life stages.

The rise of financial technology introduces transformative elements to these dynamics. Adoption of digital platforms, automated advisory services, and alternative assets like cryptocurrencies alters traditional approaches to budgeting, saving, and investing (Chhillar & Arora, 2022; Gan et al., 2021; Jariyapan et al., 2022). These tools enhance accessibility and efficiency but also shift behavioral patterns, particularly during periods of economic stress when reliance on digital solutions intensifies. Cohort-based examinations add nuance, showing that attributes like knowledge, self-control, and planning horizons connect differently to financial product engagement across age groups, indicating heterogeneity in how generations respond to available technologies and opportunities (Rey et al., 2023).

Integrating insights from behavioral finance strengthens overall understanding by accounting for systematic departures from strict rationality in routine decisions (Goyal et al., 2022; Almeida et al., 2021). Psychological and attitudinal constructs help explain why individuals may overlook optimal strategies despite awareness, due to biases in risk perception or preference formation. This perspective complements socioeconomic and technological views, offering a more complete framework for why management behaviors vary widely even under similar external conditions.

Collectively, these contributions portray PFMB as an outcome of interconnected influences: socioeconomic resources establish feasible options, demographic and generational contexts define typical challenges, psychological factors motivate action, socialization embeds enduring norms, and digital innovations reshape execution pathways. Effective practices thus emerge from balanced interactions among these domains, where improvements in one area such as enhanced literacy or tool access may yield limited gains without supporting adjustments elsewhere.

The growing body of evidence on digital finance and behavioral mechanisms signals a maturing field, with expanding clusters that combine technological, psychological, and contextual elements (Ingale & Paluri, 2022). Yet, much of this work remains focused on specific sub-themes, such as isolated generational effects, socialization processes, or fintech uptake in crisis settings, often through targeted empirical designs. While insightful, these concentrated efforts tend to illuminate particular pathways rather than charting broader interconnections or longitudinal shifts in emphasis.

Comprehensive syntheses that trace productivity, geographic contributions, collaborative structures, and thematic progression are comparatively rare. The rapid accumulation of publications on behavioral and digital aspects suggests substantial potential for integration, but the lack of structured overviews constrains cumulative progress (Ingale & Paluri, 2022). This limitation is notable given the field's interdisciplinary scope, where evolving knowledge networks demand systematic tools to reveal persistent patterns and emerging priorities.

The present analysis addresses this foundation by drawing on established determinants and mechanisms to frame a wider examination. It recognizes the joint roles of socioeconomic positioning, psychological drivers, social transmission, generational variation, and technological change in shaping PFMB, while extending prior insights through aggregated evidence of research development. This approach not only consolidates fragmented contributions but also highlights opportunities for unified models that better capture contemporary realities, supporting targeted advancements in theory and application alike.

3. RESEARCH METHOD

This study adopts a bibliometric methodology to investigate the evolution and structure of research on personal financial management behavior (PFMB). This quantitative approach is well-suited to the field's interdisciplinary and rapidly expanding nature, as it allows for the systematic examination of large volumes of publications to uncover patterns in productivity, collaboration, thematic development, and intellectual foundations (Adelia et al., 2025; Surya et al., 2025; Saputra et al., 2025). By combining performance analysis with science mapping techniques, the method provides an objective synthesis that addresses the fragmentation and knowledge gaps identified in prior sections, where socioeconomic, psychological, socialization, fintech, and generational influences intersect without comprehensive overarching mapping.

Robust bibliometric studies in financial domains typically begin with transparent search protocols in established databases, specifying time spans, document types, and inclusion

criteria, before integrating descriptive performance metrics such as annual publication trends with mapping analyses to delineate intellectual structures (Goyal et al., 2021; Zaimović et al., 2023). In emerging or crisis-affected topics like PFMB, hybrid systematic and bibliometric designs prove effective for detecting thematic surges and cluster consolidation, particularly amid digital transformation and economic disruptions (Boubaker et al., 2023; Goyal et al., 2021).

The population for this analysis consists of all peer-reviewed publications indexed in the Scopus database relevant to PFMB. Scopus was selected for its comprehensive coverage of high-quality journals, structured metadata, and established use in financial bibliometric reviews. The sample was derived through a deliberate search strategy designed to balance core domain terms such as "financial management behavior," "personal financial behavior," "financial decision-making," and related constructs with synonyms and associated phrases like "financial planning," "fintech adoption," and "behavioral finance" to ensure systematic yet inclusive retrieval (Goyal et al., 2021; Sahid et al., 2023; Zaimović et al., 2023). This keyword selection prioritizes replicability while capturing variations across sub-themes, including psychological mediators, digital tools, and contextual factors.

The search was restricted to English-language documents published between 2000 and 2024, a period that encompasses the field's emergence and recent acceleration driven by technological and crisis-related shifts. Filters excluded non-article types (e.g., books, conference proceedings without full indexing) to focus on journal contributions with rigorous peer review. This process yielded 312 records, exported in CSV format with complete bibliographic details: author names, affiliations, titles, abstracts, keywords, citation counts, and DOIs. These fields enable multifaceted analysis, supporting both descriptive overviews and network-based explorations.

Data preparation emphasized quality and replicability, core principles in systematic reviews. Cleaning involved removing duplicates, normalizing variations in author names, institutional affiliations, and keywords, and documenting all screening decisions (Goyal et al., 2021; Zaimović et al., 2023). Such steps minimize inconsistencies that could distort network interpretations, enhancing validity in mapping interdisciplinary connections like those between behavioral finance and fintech adoption.

Analysis proceeded using VOSviewer, a widely adopted tool for constructing and visualizing bibliometric networks due to its clarity in representing relationships. The software facilitated multiple mapping types: co-authorship networks to identify collaborative patterns among authors, institutions, and countries; keyword co-occurrence to reveal thematic clusters

and their evolution; and co-citation analysis to trace influential references and theoretical foundations. These visualizations network, density, overlay, and cluster views highlight connections, concentrations, and temporal shifts, providing insights into how PFMB research has progressed from foundational socioeconomic and psychological explorations to integrations involving digital platforms.

Publication trend analysis complemented the mapping by examining output distribution over time. This involved time-slicing the dataset into periods and reporting annual or phased counts to illustrate growth dynamics, including post-crisis accelerations (Boubaker et al., 2023; Donthu et al., 2021; Goyal et al., 2021; Zaimović et al., 2023). Such descriptive examination reveals responsiveness to external events, aligning with the field's emphasis on real-world influences like economic insecurity and technological change.

The overall model integrates performance metrics (e.g., productivity by author or region) with relational mapping, following guidelines that advocate this dual structure for comprehensive field overviews (Donthu et al., 2021). This framework not only quantifies growth but also qualitatively interprets structural evolution, such as the emergence of clusters linking psychological antecedents to fintech outcomes.

To ensure methodological soundness, procedures adhered to contemporary standards for bibliometric research. Transparency in protocol design supports replicability, while cross-verification across visualization types and metrics reduces interpretation bias. Source selection and cleaning prioritize reliability, positioning the analysis as a credible extension of prior fragmented contributions on PFMB determinants.

This design directly responds to the need for unified evidence in a domain marked by diverse influences and rapid digital integration. By systematically charting publication trajectories, collaborative networks, and thematic interconnections, it lays a foundation for identifying priorities that build on established socioeconomic, psychological, and technological insights. The resulting overview thus facilitates cumulative knowledge development, informing future investigations into how individuals navigate financial practices amid ongoing global and digital shifts.

4. RESULTS AND DISCUSSION

This section reports the findings from the bibliometric analysis of 312 publications on personal financial management behavior (PFMB) indexed in the Scopus database, covering the period from 2000 to 2024. Data retrieval followed a systematic protocol, beginning with targeted keyword searches that balanced core terms (e.g., financial management behavior,

personal finance behavior) with related constructs (e.g., financial planning, fintech adoption, behavioral finance). After applying filters for English-language journal articles and removing duplicates through careful cleaning, the final dataset provided a reliable foundation for performance and mapping analyses. The timeframe captures the field's gradual emergence in the early 2000s through its accelerated growth in recent years, reflecting influences from digital transformation and economic disruptions. No specific geographic location was involved, as the study draws on global scholarly output.

The results illustrate a dynamic research domain characterized by increasing volume, concentrated contributions, regional hubs, interconnected themes, and a solid intellectual base. These patterns align with the multidimensional determinants of PFMB outlined earlier—socioeconomic resources, psychological factors, socialization processes, generational differences, and fintech integration while revealing how scholarly attention has evolved in response to real-world changes.

Data Retrieval and Analytical Overview

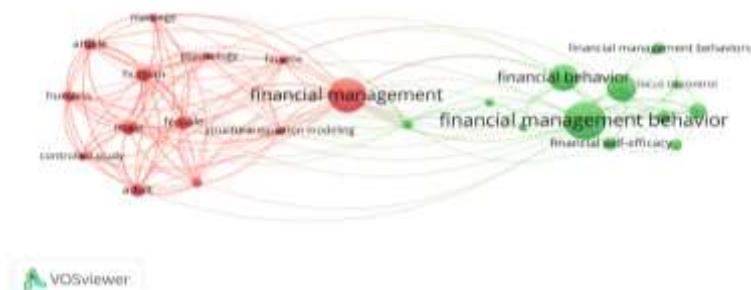
The dataset comprises 312 documents exported in CSV format, including full bibliographic metadata. Cleaning ensured consistency in author names, affiliations, and keywords, supporting accurate network construction. Analyses combined descriptive metrics (e.g., annual outputs, productivity rankings) with relational mapping using VOSviewer, producing visualizations of co-authorship, keyword co-occurrence, and co-citation networks. Trend examination involved time-slicing to highlight growth phases, consistent with established practices for mapping financial fields (Goyal et al., 2021). This integrated approach enables a comprehensive view of structural evolution, from early explorations of individual influences to contemporary emphases on digital and crisis-related adaptations.

Publication Trends

Publication output displays a clear upward trajectory, with distinct phases of growth that mirror broader shifts in financial research priorities. Early years (2000–2005) saw negligible activity, typically zero to two articles annually, indicating PFMB was not yet a focal area. Modest increases occurred from 2006 to 2012 (one to four per year), followed by steadier expansion from 2013 to 2019 (four to seven annually). The most dramatic rise emerged post-2020, climbing to 22 articles in 2023 before a minor decline in 2024 (Kumar, 2025).

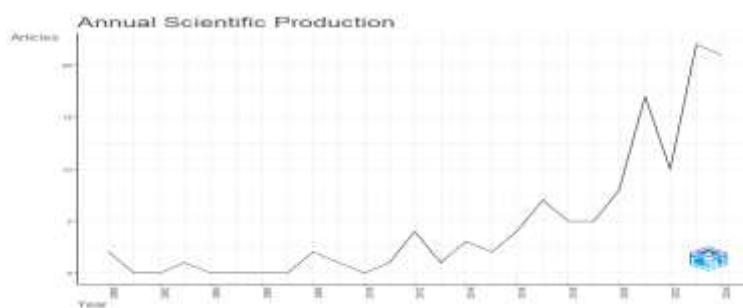
This pattern reflects heightened scholarly response to external events, particularly economic insecurity and accelerated digital adoption during global crises. Systematic reviews of related domains similarly document time-based trends and regional distributions as core elements in field mapping, with notable surges in crisis contexts (Goyal et al., 2021; Zaimović

et al., 2023; Boubaker et al., 2023). The post-2020 acceleration aligns with increased attention to behavioral resilience and digital tools, underscoring PFMB's relevance amid uncertainty.



Source: Data Processed, 2025

Figure 1. The visualization of Co-occurrence.



Source: Data Processed, 2025

Figure 2. The Graphic Annual Scientific Production.

Figure 1 (Co-occurrence Visualization from VOSviewer) complements this trend by grouping topics into two main clusters: red for demographic and methodological aspects (e.g., psychology, structural equation modeling) and green for central PFMB elements (e.g., self-efficacy, locus of control). Figure 2 (Annual Scientific Production Graph from Biblioshiny) plots the yearly counts, emphasizing the recent escalation.

Table 1. Summarizes Phased Trends.

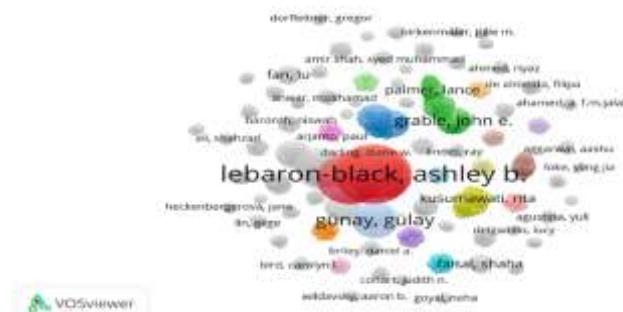
Period	Average Annual Publications	Key Characteristics
2000–2005	0–2	Minimal activity, emerging recognition
2006–2012	1–4	Gradual interest in individual practices
2013–2019	4–7	Steady growth in behavioral dimensions
2020–2024	8–22 (peak 2023)	Sharp surge linked to crisis and digital shifts

Source: Data Processed, 2025

These phases suggest PFMB research has matured responsively, integrating socioeconomic and psychological insights with contemporary technological contexts (Bayakhmetova et al., 2025; Rokhilawati et al., 2024).

Most Productive Authors

Contributions remain distributed yet concentrated among key individuals and networks. Leading authors account for multiple documents, often serving as hubs in collaborative clusters.



Source: Data Processed, 2025

Figure 3. Most Productive Authors.

Figure 3 (Most Productive Authors from VOSviewer) illustrates this through node sizes and colored groups, where larger nodes denote higher output and distinct colors indicate specialized teams.

Table 2. Most Productive Authors.

Rank	Author	Articles	Articles Fractionalized
1	LeBaron-Black AB	7	1.29
2	Dew JP	6	2.08
3	Yorgason JB	5	1.00
4	Goyal K	4	1.92
5	Gunay G	4	1.42
6	Kumar S	4	1.42
7	Saxey MT	4	0.86
8	Xiao JJ	4	1.58
9	Bapat D	3	3.00
10	Boylu AA	3	1.17

Source: Data Processed, 2025

This concentration highlights the role of established communities in advancing sub-themes, such as family socialization or psychological mediators, while suggesting opportunities for broader participation to enrich diversity.

Geographic Distribution and International Collaboration

The provided data, supported by the VOSviewer network diagram and the connectivity map, illustrates a global network of interconnectedness anchored by several key nations, primarily the United States (USA) and Indonesia. The two largest nodes in the network, the

USA and Indonesia, are the most dominant or central entities in the dataset, signifying a high frequency of involvement in the measured activity (Minh Sang, 2024). Focus on USA and Indonesia Connectivity an in-depth analysis of the frequency data reveals that these two central countries maintain strong and varied connections, particularly with nations across the Asia-Pacific region.

The USA demonstrates its highest frequency connection to Australia (134.491). The USA also maintains significant, dense ties with East and Southeast Asia, including Korea (127.839), Hong Kong (114.114), Malaysia (109.698), and India (79.612). The world map visually reinforces the USA's role as a major hub, projecting connections across Asia and the Middle East.

Indonesia records the highest frequency connection in the entire dataset, linking strongly with New Zealand (171.485). Furthermore, Indonesia is strongly tied to its regional neighbors, specifically Malaysia (109.698) and Singapore (103.817).



Source: Data Processed, 2025

Figure 4. Most Cited Countries.



Source: Data Processed, 2025

Figure 5. The Map of Most Cited Countries.

Figure 4 (Most Cited Countries Network from VOSviewer) and Figure 5 (World Map of Most Cited Countries from Biblioshiny) depict dense ties, including high-frequency connections to Australia, Malaysia, and others (Minh Sang, 2024).

An intriguing pattern in the data is the identical frequency value shared by multiple country pairs, such as the 134.491 score shared among India-Australia, Malaysia-Australia, and USA-Australia, and the 109.698 score shared among India-Malaysia, Indonesia-Malaysia, and USA-Malaysia. The repetition of these exact values strongly suggests that 'Frequency' is a calculated metric, likely a co-occurrence score or correlation, which highlights the shared high-volume association of a certain country (like Australia or Malaysia) with various partners. Other notable high-frequency links include India to Australia (134.491) and Poland to Thailand (101.003). One exception to the positive frequencies is the link between South Africa and the United Kingdom, which shows a negative frequency (-2.866), indicating a possible inverse or weak relationship in the context being measured.

Table 3. The Most Cited Countries.

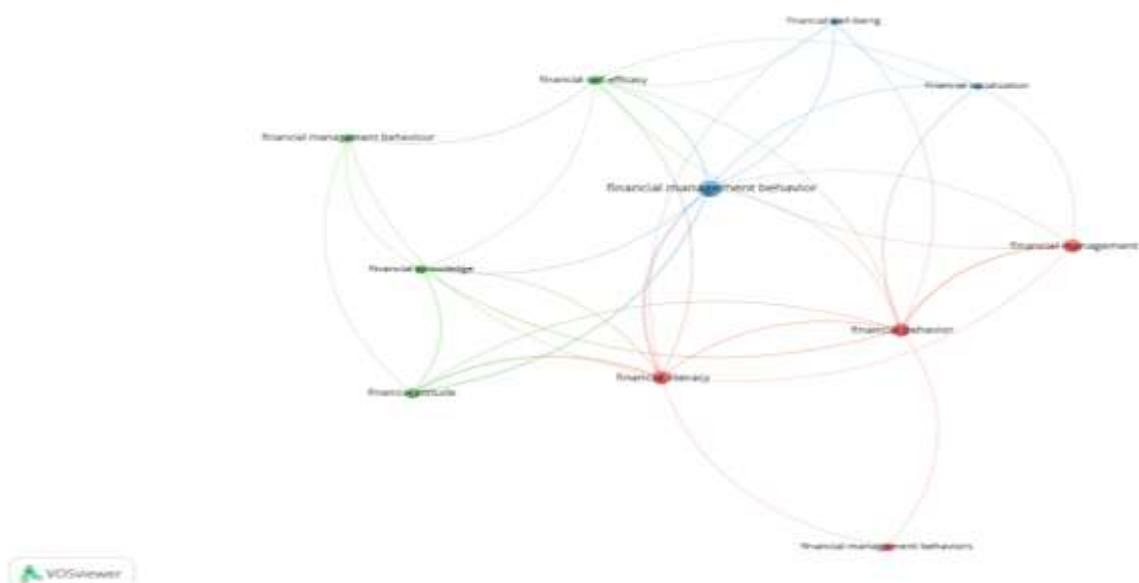
From Country	To Country	Link Strength
Indonesia	New Zealand	171.485
Sweden	New Zealand	171.485
India	Australia	134.491
Malaysia	Australia	134.491
USA	Australia	134.491
USA	Korea	127.839
USA	Hong Kong	114.114
India	Malaysia	109.698
Indonesia	Malaysia	109.698
USA	Malaysia	109.698
Indonesia	Singapore	103.817
Poland	Thailand	101.003
USA	India	79.612
Malaysia	Pakistan	69.340
India	Oman	56.092
India	Bahrain	50.542
Indonesia	Jordan	36.771
USA	Turkey	35.169
Saudi Arabia	Egypt	29.862
Malaysia	Finland	26.275
Poland	Lithuania	23.887
Albania	Serbia	20.790
Albania	Slovakia	19.479
Indonesia	Sweden	16.746
USA	Sweden	16.746
Spain	Italy	12.070
Belgium	Germany	10.386
USA	Netherlands	5.281

South Africa	United Kingdom	-2.866
Source: Data Processed, 2025		

Bibliometric examinations of related journals reveal similar concentrations in specific national contexts alongside mapped author and country networks (Goyal & Kumar, 2023). The Asia-Pacific emphasis reflects growing focus on emerging economy challenges, where demographic pressures and rapid fintech uptake shape PFMB uniquely (Baker et al., 2020).

Keyword Co-occurrence

Keyword networks organize the literature into three primary clusters, tracing progressive interconnections.



Source: Data Processed, 2025

Figure 6. Co-occurrence.

Figure 6 (Co-occurrence Network from VOSviewer) delineates: red cluster on foundational aspects (financial literacy, behavior, management); green on psychological mediators (attitude, knowledge, self-efficacy); and blue on outcomes and contexts (well-being, socialization). The red cluster positions literacy as a core enabler of responsible practices. Green elements illustrate mediation, where internal factors translate knowledge into actions. Blue highlights culmination in well-being, influenced by social conditioning. Bibliometric studies in overlapping areas routinely employ co-occurrence to uncover clusters like literacy-planning-investment, with strengthening digital themes (e.g., PFM platforms, robo-advisory) (Ansari et al., 2022; Chhillar & Arora, 2022; Dorfleitner & Quỳnh, 2022; Zaimović et al., 2023). This structure reinforces PFMB's multidimensionality, linking socioeconomic foundations to psychological processes and technological outcomes.

The red cluster focuses on the interconnected themes of financial literacy, financial behavior, and financial management. These themes form the conceptual core of much contemporary literature on financial behavior. The density of connections within this cluster indicates that financial literacy is consistently considered a key factor in individuals' financial decision-making and their ability to manage money responsibly. This reflects the long-standing assumption that knowledge enables individuals to behave more rationally in financial contexts. Empirical findings reinforce this interpretation. Building on this foundation, the green cluster incorporates psychological and cognitive dimensions, such as financial attitude, financial knowledge, and financial self-efficacy. Its structure suggests that these internal factors act as the mechanisms through which financial literacy and knowledge influence actual financial behavior. Psychological constructs like attitudes and self-efficacy do not act independently; rather, they shape how individuals interpret information, assess risks, and convert financial understanding into real-world actions. These findings align with those of, who argue that "financial self-efficacy and financial attitude mediate the influence of financial knowledge on financial behavior," highlighting the idea that knowledge alone does not guarantee sound behavior unless individuals also possess the confidence and positive dispositions necessary for managing their finances effectively. Thus, the green cluster represents the motivational and cognitive engine that drives individuals' financial actions.

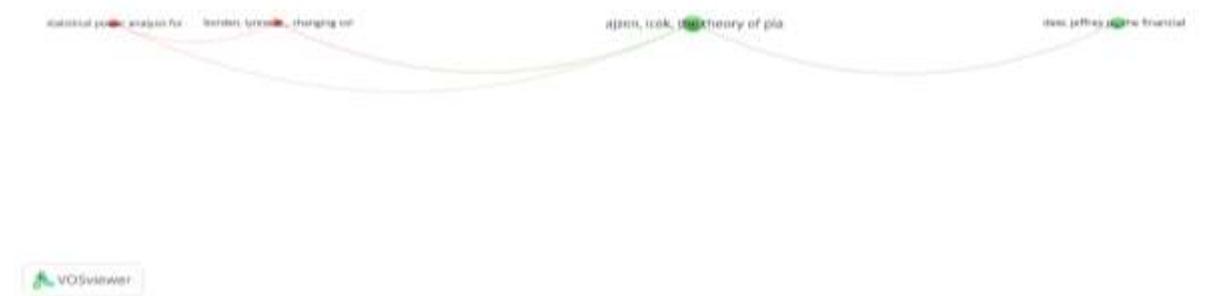
Finally, the blue cluster highlights the outcomes and contextual influences of financial behavior, with a focus on financial management, well-being, and socialization. This cluster emphasizes that effective financial management is not an isolated behavior but one that significantly contributes to long-term financial well-being, an important theme in financial capability research. Furthermore, the strong connection to financial socialization suggests that early life influences, family communication patterns, and broader social environments play a pivotal role in shaping individuals' long-term financial habits. Support this idea, concluding that "financial socialization, financial literacy, and financial behavior significantly affect financial well-being," suggesting that well-being is a multifaceted construct shaped by both individual competencies and social experiences. Thus, the blue cluster positions financial well-being as the culmination of internal capabilities and social conditioning.

Together, these clusters paint a clear picture of the research landscape. The red cluster establishes financial literacy as the structural foundation. The green cluster explains how knowledge transforms into behavior. The blue cluster reveals the consequences of financial management and acknowledges the critical role of social influences. This integrated view

provides a multidimensional understanding of financial behavior, considering cognitive, psychological, behavioral, and contextual factors simultaneously.

Co-Citation

The co-citation structure of the visualization reveals a clear intellectual pathway in which Theory of Planned Behavior emerges as the central conceptual node, linking the methodological and empirical literatures. Ajzen's work forms the theoretical core of the network, as evidenced by its large node size and strong co-citation links. This indicates its dominant role in shaping behavioral explanations in financial literacy and financial behavior studies. To the right an influential empirical contributor whose research on family financial strain and conflict is often associated with behavioral theory. The co-citation relationship between Dew and Ajzen suggests that scholars often use TPB to interpret how psychological and relational factors influence financial outcomes within households.



Source: Data Processed, 2025

Figure 7. The Co Citation.

Figure 7 (Co-citation Network from VOSviewer) features central nodes integrating theoretical frameworks with empirical applications in literacy and household contexts. These tight connections demonstrate a coherent base, where behavioral models inform diverse applications. Such analyses commonly extract intellectual cores, distinguishing conceptual streams in behavioral finance (Ansari et al., 2022; Sharma et al., 2024). The observed structure supports integration of psychological antecedents with emerging digital influences.

Findings resonate with yet extend existing reviews. Earlier work notes rising digital clusters blending technology and behavior (Ingale & Paluri, 2022). This analysis confirms sharper post-crisis growth and refined thematic linkages (Kumar, 2025). Comparisons between financial literacy and PFMB trends affirm proximity in determinants and well-being impacts, while underscoring needs for cross-domain integration (Goyal et al., 2021; Zaimović et al., 2023).

Geographic and collaborative patterns imply future agendas should expand cross-national contexts and better connect literacy-digital-behavior clusters (Baker et al., 2020; Sundarason et al., 2024). Overall, PFMB emerges as a consolidating subfield, progressing toward practical, technology-informed orientations.

Theoretically, results strengthen multidimensional models, where socioeconomic constraints interact with psychological mediators, socialization, generational heterogeneity, and fintech tools to produce varied behaviors. The clustered progression from literacy foundations through internal processing to well-being outcomes offers a framework for unifying fragmented insights, advancing behavioral finance explanations of non-rational choices.

Practically, the post-2020 surge and digital thematic prominence suggest interventions should prioritize accessible tools and education tailored to regional contexts, enhancing resilience amid uncertainty. Geographic concentrations highlight opportunities for inclusive policies in high-growth areas, while author networks indicate value in fostering broader collaborations for diverse perspectives. These implications extend prior determinants, emphasizing integrated approaches that address joint influences for sustained financial well-being.

Building on identified patterns, future efforts should pursue longitudinal and cross-cultural designs to test causal pathways, particularly fintech mediation in crisis settings. Advanced mapping could incorporate dynamic topic modeling to track emerging intersections, while expanded geographic scope addresses underrepresented regions. Prioritizing unified models that bridge literacy, psychology, and digital ecosystems will support evidence-based advancements aligned with sustainable development goals. This analysis portrays PFMB research as vibrant and adaptive, with robust growth potential rooted in interdisciplinary foundations.

5. CONCLUSION

This bibliometric examination of personal financial management behavior research from 2000 to 2024 demonstrates a field that has evolved from modest beginnings into a robust and responsive domain, characterized by exponential growth and deepening interdisciplinary connections. The sharp increase in publications, especially following 2020, confirms the topic's heightened relevance amid economic disruptions and rapid digital advancement, with annual outputs reflecting scholarly adaptation to real-world challenges in individual financial practices. Thematic structures organize the literature into coherent clusters that trace a logical

progression: foundational elements of literacy and knowledge, mediated by psychological constructs such as attitudes and self-efficacy, culminating in broader outcomes like financial well-being influenced by socialization processes. Geographic patterns underscore concentrated contributions from key hubs in the United States and Asia-Pacific regions, particularly Indonesia, while author networks reveal productive yet specialized collaboration groups driving cumulative advancements.

These findings fulfill the study's objectives by documenting publication expansion and regional distribution, uncovering dominant thematic interconnections through keyword and citation networks, and highlighting structural features that inform priorities ahead. The results portray personal financial management behavior as inherently multidimensional, where socioeconomic constraints, internal dispositions, social influences, generational variations, and technological tools interact to shape everyday decisions. This integrated view extends isolated prior contributions, offering a clearer trajectory from early demographic explorations to contemporary emphases on digital resilience and psychological mediation.

Nevertheless, certain limitations warrant caution in interpreting the results. Reliance on Scopus as the sole database may underrepresent contributions from non-indexed sources or non-English publications, potentially overlooking diverse regional perspectives. The timeframe concludes in 2024, excluding very recent developments that could further accentuate emerging themes like advanced fintech applications. Additionally, bibliometric methods prioritize quantitative linkages over qualitative depth, limiting insights into substantive theoretical debates within clusters.

For future investigations, extending analyses to multiple databases and languages would enhance comprehensiveness and reveal underrepresented voices, particularly from global South contexts experiencing rapid financial digitization. Longitudinal designs incorporating dynamic topic modeling could better capture evolving intersections, such as the role of artificial intelligence in behavioral nudges or post-crisis recovery pathways. Cross-cultural comparative studies remain essential to test the generalizability of cluster patterns across economic settings, while integrative frameworks that explicitly link psychological mediators to sustainable outcomes could strengthen theoretical cohesion.

Practically, the identified surge in digital-related themes suggests policymakers and educators prioritize accessible platforms and tailored literacy programs to bolster resilience, especially in high-growth regions. Financial institutions might leverage these insights to design tools that address psychological barriers alongside technical features, promoting broader inclusion. Ultimately, this mapping provides a foundational reference for navigating the field's

continued expansion, encouraging approaches that balance innovation with equitable access to support enduring personal financial stability.

REFERENCES

Adelia, A., Rahman, M. H., Muthahari, M. W., Pramisya, F. L., Ariswati, L. D., & Kesuma, M. R. (2025). Navigating digital business performance: A bibliometric exploration and integrated evaluation framework. *Ekopedia: Jurnal Ilmiah Ekonomi*, 1(4), 3222–3236. <https://doi.org/10.63822/yxfn4k21>

Ali, S., & Talha, N. (2021). During COVID-19, impact of subjective and objective financial knowledge and economic insecurity on financial management behavior: Mediating role of financial wellbeing. *Journal of Public Affairs*. <https://doi.org/10.1002/pa.2789>

Almeida, F. de, Ferreira, M. B., Soro, J. C., & Silva, C. S. (2021). Attitudes toward money and control strategies of financial behavior: A comparison between overindebted and non-overindebted consumers. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2021.566594>

Althaf, S. A., Sustyaningsih, S., Kusuma, A. M. N., Anwar, A. G., Irianto, E. D. O., & Kesuma, M. R. (2025). Digital transformation and sustainability: Unraveling interconnections and challenges through bibliometric insights. *Digital Bisnis: Jurnal Publikasi Ilmu Manajemen dan E-Commerce*, 4(4), 206–223. <https://doi.org/10.30640/digital.v4i4.5506>

Ansari, Y., Albarak, M. S., Sherfudeen, N., & Aman, A. (2022). A study of financial literacy of investors: A bibliometric analysis. *International Journal of Financial Studies*. <https://doi.org/10.3390/ijfs10020036>

Ariswati, L. D., Kesuma, M. R., Aini, R. N., Irianto, E. D. O., Widaryo, C. M., & Henrika, M. (2025). Does financial literacy drive SME success in resource-rich regions? *Priviet Social Sciences Journal*, 5(11), 308–321. <https://doi.org/10.55942/pssj.v5i11.714>

Baker, H. K., Kumar, S., & Pandey, N. (2020). A bibliometric analysis of managerial finance: A retrospective. *Managerial Finance*, 46(11), 1495–1517. <https://doi.org/10.1108/MF-06-2019-0277>

Bayakhmetova, A., Rudenko, L., Krylova, L., Suleimenova, B., Niyazbekova, S., & Nurpeisova, A. (2025). Artificial intelligence in financial behavior: Bibliometric ideas and new opportunities. *Journal of Risk and Financial Management*, 18(3), 159. <https://doi.org/10.3390/jrfm18030159>

Boubaker, S., Goodell, J. W., Kumar, S., & Sureka, R. (2023). COVID-19 and finance scholarship: A systematic and bibliometric analysis. *International Review of Financial Analysis*. <https://doi.org/10.1016/j.irfa.2022.102458>

Chhillar, N., & Arora, S. (2022). Personal financial management behavior using digital platforms and its domains. *Journal of Financial Management, Markets and Institutions*. <https://doi.org/10.1142/S2282717X22500098>

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (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>

Dorfleitner, G., & Quỳnh, A. N. (2022). Mobile money for women's economic empowerment: The mediating role of financial management practices. *Review of Managerial Science*. <https://doi.org/10.1007/s11846-022-00564-2>

Gan, L. Y., Islam Khan, M. T., & Liew, T. W. (2021). Understanding consumers' adoption of financial robo-advisors at the outbreak of the COVID-19 crisis in Malaysia. *Financial Planning Review*. <https://doi.org/10.1002/cfp2.1127>

Goyal, K., & Kumar, S. (2023). A bibliometric review of *Journal of Financial Counseling and Planning* between 1990 and 2022. *Journal of Financial Counseling and Planning*. <https://doi.org/10.1891/JFCP-2023-0009>

Goyal, K., Kumar, S., & Hoffmann, A. O. I. (2023). The direct and indirect effects of financial socialization and psychological characteristics on young professionals' personal financial management behavior. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-09-2022-0419>

Goyal, K., Kumar, S., & Xiao, J. J. (2021). Antecedents and consequences of personal financial management behavior: A systematic literature review and future research agenda. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-12-2020-0612>

Goyal, K., Kumar, S., Xiao, J. J., & Colombage, S. (2022). The psychological antecedents of personal financial management behavior: A meta-analysis. *International Journal of Bank Marketing*. <https://doi.org/10.1108/IJBM-02-2022-0088>

Hall, S., Leaver, A., Seabrooke, L., & Tischer, D. (2023). The changing spatial arrangements of global finance: Financial, social and legal infrastructures. *Environment and Planning A: Economy and Space*. <https://doi.org/10.1177/0308518X231159396>

Henrika, M., Ariswati, L. D., Kesuma, M. R., Widaryo, C. M., Irianto, E. D. O., & Aini, R. N. (2025). Trade wars and tech giants: The U.S.–China policy effect on American technology companies. *JEMBA: Jurnal Ekonomi Pembangunan, Manajemen & Bisnis, Akuntansi*, 5(1), 65–74. <https://doi.org/10.52300/jemba.v5i1.20277>

Ingale, K. K., & Paluri, R. A. (2022). 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>

Irianto, E. D. O., Kesuma, M. R., Henrika, M., Widaryo, C. M., Aini, R. N., & Ariswati, L. D. (2025). Liquidity and financial resilience: Lessons from Indonesia amid COVID-19 resurgence. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(2), 2749–2757. <https://doi.org/10.31004/riggs.v4i2.931>

Jäger, J., & Schmidt, L. (2020). Global green finance and sustainability: Insights for progressive strategies. *Journal für Entwicklungspolitik*. <https://doi.org/10.20446/JEP-2414-3197-36-4-4>

Jariyapan, P., Mattayaphutron, S., Gillani, S. N., & Shafique, O. (2022). Factors influencing the behavioural intention to use cryptocurrency in emerging economies during the COVID-19 pandemic: Based on technology acceptance model 3, perceived risk, and financial literacy. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2021.814087>

Kayode, O. S., Sibanda, M., & Olarewaju, O. M. (2022). Analyzing the determinants of financial management behavior of administrators in Nigerian state-owned enterprises. *Investment Management and Financial Innovations*. [https://doi.org/10.21511/imfi.19\(3\).2022.23](https://doi.org/10.21511/imfi.19(3).2022.23)

Kesuma, M. R., Defung, F., & Kusumawardani, A. (2021). Bankruptcy prediction and its effect on stock prices as impact of the COVID-19 pandemic. *Technium Social Sciences Journal*, 25, 567–582. <https://doi.org/10.47577/tssj.v25i1.4964>

Kesuma, M. R., Henrika, M., & Ariswati, L. D. (2025). The impact of capital intensity on financial stability of energy sector companies in Indonesia. *Journal of Financial Economics & Investment*, 5(2), 115–127. <https://doi.org/10.22219/jofei.v5i2.40516>

Korip, Z. M., Assyifa, A. R., Mantika, S. U., Kesuma, M. R., & Ariswati, L. D. (2025). A bibliometric analysis of financial literacy and financial planning research. *Ekopedia: Jurnal Ilmiah Ekonomi*, 1(4), 3354–3374. <https://doi.org/10.63822/31gje388>

Kumar, R. (2025). Global trends and research patterns in financial literacy and behavior: A bibliometric analysis. *Management Science Advances*, 2(1), 1–18. <https://doi.org/10.31181/msa2120256>

Larisa, L. E., Anastasia, N., & Wijaya, S. (2020). Female workers' readiness for retirement planning: An evidence from Indonesia. *Review of Behavioral Finance*. <https://doi.org/10.1108/RBF-04-2020-0079>

LeBaron-Black, A. B., Curran, M. A., Hill, E. J., Toomey, R. B., Speirs, K. E., & Freeh, M. E. (2022). Talk is cheap: Parent financial socialization and emerging adult financial well-being. *Family Relations*. <https://doi.org/10.1111/fare.12751>

LeBaron-Black, A. B., Holmes, E. K., Jorgensen, B. L., & Bean, R. A. (2020). Parental financial education during childhood and financial behaviors of emerging adults. *Journal of Financial Counseling and Planning*. <https://doi.org/10.1891/JFCP-20-00021>

Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal of Financial Services Marketing*. <https://doi.org/10.1057/s41264-022-00183-8>

Martínez-Blasco, M., Serrano, V., Prior, F., & Cuadros, J. (2023). Analysis of an event study using the Fama-French five-factor model: Teaching approaches including spreadsheets and the R programming language. *Financial Innovation*. <https://doi.org/10.1186/s40854-023-00477-3>

Maulana, M. D., Mandese, R. R., Adyutasara, D., Kesuma, M. R., & Irianto, E. D. O. (2026). Public financial management: A bibliometric analysis of research trends and influential publications. *Ekopedia: Jurnal Ilmiah Ekonomi*, 2(1), 22–36. <https://doi.org/10.63822/gt0sws91>

Minh Sang, N. (2024). Evolution and future directions of banking risk management research: A bibliometric analysis. *Banks and Bank Systems*, 19(2), 1–14. [https://doi.org/10.21511/bbs.19\(2\).2024.01](https://doi.org/10.21511/bbs.19(2).2024.01)

Rey, L., López, S. F., & Castro-González, S. (2023). Life insurance consumption across generations: The roles of financial knowledge, planning horizon, and self-control. *International Journal of Finance & Economics*. <https://doi.org/10.1002/ijfe.2903>

Rokhilawati, Y., Wardhani, R. P., & Rijal, S. (2024). A bibliometric exploration of behavioral finance: Trends, influential authors, research themes, and emerging concepts. *International Journal of Business, Law, and Education*, 5(1), 501–509. <https://doi.org/10.56442/ijble.v5i1.413>

Sahid, S., Nuris, D. M., & Hussin, M. (2023). Factors influencing financial behavior of undergraduate students: A systematic review. *Review of Economics and Finance*. <https://doi.org/10.55365/1923.x2023.21.1>

Santos, E., Tavares, V. C., Ratten, V., & Tavares, F. O. (2021). The profile of the Portuguese regarding the perception of financial literacy. *Managerial Finance*. <https://doi.org/10.1108/MF-05-2021-0210>

Saputra, S. A. J., Tofani, M. R. U., Risma, N., Aisyah, N., & Kesuma, M. R. (2025). Navigating digital horizons: A bibliometric exploration of digitalization in family businesses and emerging research agendas. *Ekopedia: Jurnal Ilmiah Ekonomi*, 1(4), 2926–2942. <https://doi.org/10.63822/qbx6k02>

Sharma, V., Kumar, R., Jain, J., & Ahuja, P. (2024). Mapping the literature on financial satisfaction: A systematic literature review and bibliometric analysis. *Qualitative Research in Financial Markets*. <https://doi.org/10.1108/QRFM-05-2024-0124>

Silinskas, G., Ranta, M., & Wilska, T.-A. (2021). Financial behaviour under economic strain in different age groups: Predictors and change across 20 years. *Journal of Consumer Policy*, 44(2), 235–257. <https://doi.org/10.1007/s10603-021-09480-6>

Sundarasen, S., Rajagopalan, U., & Ibrahim, I. (2024). Financial sustainability through literacy and retirement preparedness. *Sustainability*. <https://doi.org/10.3390/su162310692>

Surya, A. P., Kolompoy, B. E. Y. B., Khairunnisa, S. A., Liszt, C. I. K., Aini, R. N., & Kesuma, M. R. (2025). Digital leadership in organizational transformation: Bibliometric insights and strategic implications. *Ekopedia: Jurnal Ilmiah Ekonomi*, 1(4), 3245–3259. <https://doi.org/10.63822/wy5jyh66>

Wibowo, B., Edyanto, C., Satrio, R., Aini, R., & Kesuma, M. R. (2026). Financial management in the context of globalization: A bibliometric study. *Ekopedia: Jurnal Ilmiah Ekonomi*, 2(1), 37–51. <https://doi.org/10.63822/atc9bc19>

Widaryo, C. M., Kesuma, M. R., Henrika, M., Irianto, E. D. O., Nur, A. R., & Ariswati, L. D. (2025). Dual crises resilience: Financial dynamics of ASEAN tourism firms. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(2), 3842–3848. <https://doi.org/10.31004/riggs.v4i2.1127>

Zaimović, A., Torlaković, A., Arnaut-Berilo, A., Zaimović, T., Dedović, L., & Mešković, M. N. (2023). Mapping financial literacy: A systematic literature review of determinants and recent trends. *Sustainability*. <https://doi.org/10.3390/su15129358>