Financial behavior and risk management strategies among low-income households: A bibliometric analysis of research trends, intellectual structure, and future research directions

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ABSTRACT

Low-income households are persistently exposed to economic uncertainty due to unstable income sources, limited access to formal financial services, and vulnerability to adverse financial shocks. Consequently, understanding how economically constrained households manage financial resources and respond to risks has become an important research area spanning development economics, behavioral finance, household economics, and financial inclusion. Despite substantial growth in studies examining saving practices, borrowing decisions, financial literacy, informal insurance mechanisms, and household resilience, the intellectual structure and evolution of this interdisciplinary field remain fragmented. The study is theoretically anchored in the capability approach, permanent income and consumption-smoothing theory, behavioural economics, and the financial resilience and financial inclusion frameworks, which jointly informed the search strategy and guided the interpretation of the themes identified. This study provides a comprehensive bibliometric analysis of global research on financial behavior and risk management strategies among low-income households using publications indexed in the Scopus database. Bibliographic records published between 1994 and 2025 were analysed using performance analysis and science mapping techniques. The study applies citation analysis, productivity analysis, keyword co-occurrence analysis, collaboration network analysis, and thematic evolution analysis to identify influential contributions, dominant research themes, and emerging directions. The findings reveal a growing scholarly interest in household financial resilience, particularly after increasing global attention to financial vulnerability, economic shocks, and inclusive financial systems. The intellectual landscape is characterized by interconnected themes including financial inclusion, household risk management, consumption smoothing, informal insurance, microfinance, and financial literacy. The study identifies important knowledge gaps related to digital financial technologies, climate-related financial risks, behavioral interventions, and financial resilience among vulnerable populations in developing economies. Overall, the field is best characterised as a maturing but still fragmented interdisciplinary domain, and the study recommends closer integration of the financial inclusion, literacy, and resilience sub-literatures, together with greater research and policy attention to climate-related financial risk, digital financial inclusion, and cross-cluster collaboration, to build a more cumulative and policy-relevant evidence base. By mapping the historical development and emerging trajectories of this research domain, this study provides valuable insights for scholars, policymakers, and development practitioners seeking to strengthen financial resilience among low-income households.

Keywords: Bibliometric Analysis, Financial Behavior; Financial Resilience; Financial Inclusion; Household Risk Management; Low-Income Households

I. INTRODUCTION

Household financial behavior represents a fundamental mechanism through which individuals and families allocate resources, manage uncertainty, and maintain welfare under changing economic conditions. For low-income households, financial decisions are particularly consequential because limited resources, irregular income streams, and restricted access to formal financial markets constrain their ability to absorb shocks and smooth consumption over time. Unlike wealthier households that can rely on diversified assets and formal insurance arrangements, economically vulnerable households frequently depend on a combination of informal financial mechanisms, social networks, and adaptive behavioral strategies to manage financial uncertainty.

The relationship between household resources and vulnerability has long been central to development economics. Sen's capability approach emphasized that poverty extends beyond income deprivation and includes limited opportunities to achieve economic security and wellbeing (Sen, 1999). Similarly, research on household consumption and risk-sharing has demonstrated that poor households often face significant challenges in maintaining consumption levels when exposed to income fluctuations, health emergencies, environmental shocks, or employment disruptions (Townsend, 1994; Deaton, 1997). These challenges make financial behavior among low-income populations an important area of investigation.

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A substantial body of literature has examined how poor households respond to financial constraints through saving, borrowing, consumption adjustment, and informal risk-sharing mechanisms. Early studies demonstrated that households in developing contexts frequently rely on informal insurance arrangements, reciprocal networks, and community-based financial systems to manage uncertainty when formal markets are incomplete (Townsend, 1994; Morduch, 1995). More recent research has expanded this perspective by examining financial literacy, access to financial services, digital finance, and behavioral factors influencing household financial decisions (Lusardi & Mitchell, 2014; Demirgüç-Kunt et al., 2022).

Financial risk management among low-income households is closely associated with the concept of financial resilience, defined as the capacity of individuals and households to withstand financial disruptions and recover without experiencing severe welfare losses. Financial resilience has become increasingly important following global economic disruptions, including financial crises, public health emergencies, inflationary pressures, and climate-related shocks. Recent evidence suggests that resilience depends not only on income levels but also on access to financial instruments, knowledge, social capital, and institutional support systems (Collins et al., 2009; Kempson et al., 2013).

Although research on financial behavior and household risk management has expanded considerably, the literature remains dispersed across multiple disciplines, including economics, finance, sociology, development studies, public policy, and behavioral science. Existing reviews have often focused on specific themes such as financial inclusion, microfinance, financial literacy, or poverty reduction, leaving limited understanding of how the broader field has evolved, which scholars and institutions have shaped knowledge development, and what emerging themes are likely to influence future research. Bibliometric analysis provides an appropriate methodological approach for addressing this limitation because it enables systematic examination of large bodies of scientific literature through quantitative analysis of publications, citations, authorship patterns, collaboration structures, and thematic evolution (Zupic & Čater, 2015; Donthu et al., 2021). Unlike traditional narrative reviews that primarily synthesise findings from selected studies, bibliometric approaches reveal the intellectual and conceptual structures underlying a research domain.

1.1 Research Questions

i. How has research on financial behavior and risk management strategies among low-income households evolved over time in terms of publication growth, disciplinary orientation, and geographical distribution?
ii. Which authors, journals, institutions, countries, and publications have made the most significant contributions to this research field?
iii. What are the major intellectual structures, collaboration patterns, and conceptual themes shaping research on financial behavior and risk management among low-income households?
iv. What emerging research trends and future directions can be identified from the evolution of this research field?

II. THEORETICAL REVIEW

This study is anchored in a set of complementary theoretical perspectives that explain how and why low-income households behave, save, borrow, and manage risk under conditions of economic constraint and uncertainty. Because the study is bibliometric rather than primary-empirical in design, the theories reviewed here are not tested directly; instead, they provide the conceptual lens through which the identified themes, keyword clusters, and thematic evolution reported are interpreted, and they justify the choice of search terms and concept blocks used in the Scopus search strategy in the methodology. Four bodies of theory are considered: the capability approach to poverty and vulnerability, the permanent income and consumption-smoothing hypotheses, behavioural economics perspectives on financial decision-making, and the financial resilience and financial inclusion frameworks that have emerged more recently in the development-finance literature.

2.1 The Capability Approach and Household Vulnerability

Sen's capability approach reframes poverty as a deprivation of substantive freedoms and opportunities rather than as low income alone, arguing that wellbeing depends on the capability to convert resources into valued outcomes such as security, health, and social participation (Sen, 1999). Applied to household finance, this approach implies that financial behaviour among low-income populations cannot be understood purely as a function of income level; it must also account for households' unequal access to information, financial institutions, and social protection mechanisms that shape their capacity to cope with shocks. This perspective underlies the recurring emphasis in the bibliometric record on themes such as financial exclusion, vulnerability, and institutional support, and motivated the inclusion of population-context terms (e.g., "low-income households," "economically vulnerable," "bottom of the pyramid") in the Stage 2 search string.

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2.2 Permanent Income and Consumption-Smoothing Theory

A second theoretical strand derives from the permanent income and life-cycle hypotheses, which posit that rational households attempt to smooth consumption over time relative to their expected lifetime income rather than their current income alone (Friedman, 1957; Modigliani & Brumberg, 1954). For low-income households facing volatile and often informal income streams, this smoothing objective is difficult to achieve through formal credit or asset markets, and households instead rely on informal risk-sharing arrangements, reciprocal lending, and community-based mechanisms to buffer consumption against income and health shocks (Townsend, 1994; Morduch, 1995; Deaton, 1997). This body of theory explains the prominence of "consumption smoothing," "informal insurance," and "risk-coping strategies" as recurring keyword clusters in the mapped literature and provided the theoretical basis for the risk-management concept block in the search strategy.

2.3 Behavioural Economics Perspectives on Financial Decision-Making

Where the permanent income framework assumes largely rational, forward-looking behaviour, behavioural economics highlights systematic departures from this ideal. Simon's (1955) concept of bounded rationality suggests that financial decisions are shaped by cognitive and informational limits rather than full optimisation, while Kahneman and Tversky (1979) prospect theory demonstrates that individuals evaluate financial outcomes relative to reference points and are typically loss-averse, a tendency with particular relevance for households operating close to subsistence thresholds. Building on these foundations, financial literacy research shows that limited financial knowledge and self-efficacy constrain households' ability to plan, save, and select appropriate financial products, and that this constraint is especially binding among economically disadvantaged populations (Lusardi & Mitchell, 2014; Kempson et al., 2013). These behavioural insights help explain why financial literacy and financial capability emerge as persistent, high-frequency themes throughout the study period rather than fading as formal financial access expands.

2.4 Financial Resilience and Financial Inclusion Frameworks

More recent theoretical development has moved toward integrative frameworks that combine resource access, behaviour, and shock exposure into a single construct of financial resilience, defined as the capacity of households to withstand financial disruption and recover without lasting welfare loss (Salignac et al., 2019; Collins, Morduch, Rutherford, & Ruthven, 2009). This resilience framing has become increasingly influential following successive global disruptions, including financial crises, the COVID-19 pandemic, and climate-related shocks, and it is closely linked to the broader disaster- and development-resilience literature (Barrett & Constas, 2014). In parallel, financial inclusion theory argues that expanding access to formal savings, credit, insurance, and, more recently, digital financial services is a necessary condition for households to translate resilience-enhancing behaviours into practice, particularly in contexts where informal mechanisms alone are insufficient to absorb large or repeated shocks (Demirgüç-Kunt et al., 2022). Together, the resilience and inclusion frameworks provide the conceptual bridge between the earlier, more static consumption-smoothing literature and the more recent, dynamic themes identified in the thematic evolution analysis including digital financial inclusion and climate-related financial risk.

2.5 Integrated Conceptual Framework for the Present Study

Taken together, these four theoretical strands are treated as complementary rather than competing: the capability approach frames the normative stakes of financial vulnerability; permanent income and consumption-smoothing theory explains the behavioural logic of informal risk management under income volatility; behavioural economics accounts for departures from purely rational financial decision-making; and the financial resilience and inclusion frameworks integrate resource access, behaviour, and shock exposure into a single, policy-relevant construct. This integrated framework guided the construction of the three concept blocks used in the Stage 2 Boolean search string (financial behaviour, risk management and coping, and low-income household populations), and it is used in to interpret the intellectual structure, thematic clusters, and emerging research frontiers identified through the bibliometric analysis.

III. METHODOLOGY

3.1 Study Design

This study adopts a systematic literature review (SLR) design, guided by the PRISMA 2020 reporting guideline (Page et al., 2021) and the principles of thematic synthesis for qualitative and mixed-evidence literature (Thomas & Harden, 2008). The objective goes beyond compiling previous studies on financial behaviour and risk-coping strategies among low-income households: it aims to reveal the extent, distribution, and thematic structure of this evidence base, and to establish a transparent, reproducible foundation for the synthesis presented in later sections. The review was conducted in two stages: an initial rapid scoping search to map the general evidence landscape (Stage 1), followed by a formal, single-database systematic search in Scopus, reported below in full with its complete search string and record-selection process (Stage 2).

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3.2 Data Source and Search Strategy

Data were drawn from Scopus, selected for its broad multidisciplinary coverage, rigorous citation indexing, and strong representation of business, economics, and social science journals relevant to household financial behaviour and risk management. A comprehensive Boolean search string ("AND", "OR") was applied to the Title, Abstract, and Keyword (TITLE-ABS-KEY) field, combining three concept blocks financial behaviour, risk management and coping, and low-income household populations so that only records addressing all three dimensions jointly were retrieved. Figure 1 sets out this process: the three concept blocks feed into an exploratory Stage 1 scoping search, which in turn informed the construction of the formal Stage 2 Boolean string; this string was then run in Scopus and narrowed through a set of database-specific refinements (publication year, subject area, document type, language, source type, and publication stage) to yield the final record pool taken forward to title/abstract screening.

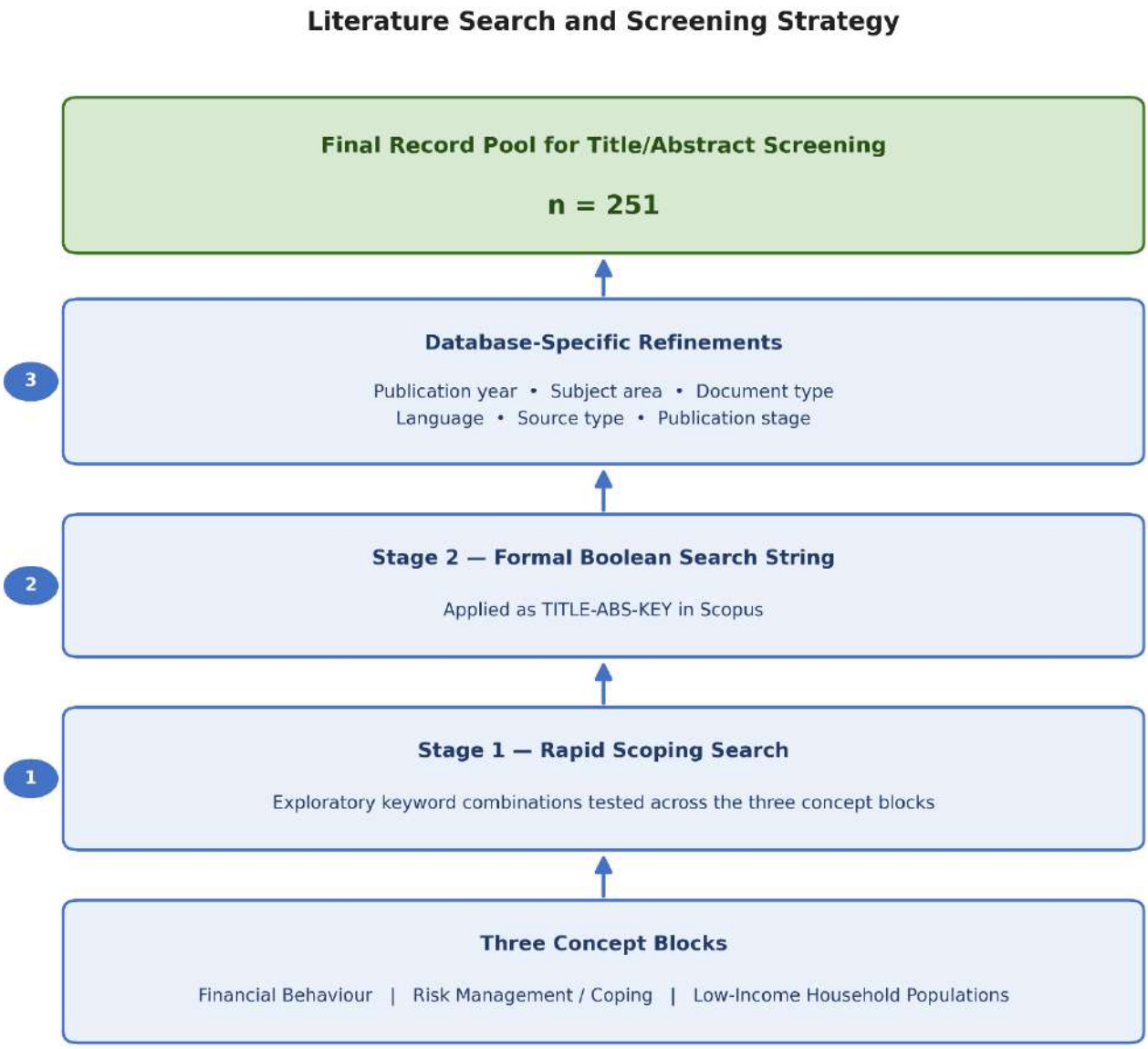


Figure 1

Workflow for the Stage 1 and Stage 2 Search Process Leading to the Final Scopus Record Pool

The Stage 1 scoping search involved exploratory combinations of terms such as "financial behaviour," "saving behaviour," "borrowing behaviour," "risk coping strategies," "financial shocks," "microinsurance," and "financial inclusion," combined with population and context terms including "low-income households," "poor households," "Tanzania," and "Sub-Saharan Africa." This stage produced twenty-two sources, which were used to establish the thematic structure of the review and to inform the final Stage 2 search string. The full Stage 2 string, reproduced below for transparency and reproducibility, was run in Scopus (TITLE-ABS-KEY field) with a final refinement limiting results to journal-sourced articles:

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TITLE-ABS-KEY (("financial behaviour" OR "financial behavior" OR "financial practices" OR "financial decision-making" OR "financial decisions" OR "financial management" OR "financial planning" OR "financial capability" OR "financial literacy" OR "financial knowledge" OR "financial attitudes" OR "financial skills" OR "saving behaviour" OR "saving behavior" OR "savings behavior" OR "borrowing behaviour" OR "borrowing behavior" OR "spending behaviour" OR "spending behavior" OR "consumption behavior" OR "insurance uptake" OR "insurance behavior" OR "household finance" OR "money management" OR "financial habits" OR "economic behaviour" OR "economic behavior") AND ("risk management" OR "risk coping" OR "coping strategies" OR "coping mechanisms" OR "risk mitigation" OR "risk reduction" OR "risk transfer" OR "risk pooling" OR "financial resilience" OR "economic resilience" OR "livelihood resilience" OR "financial shocks" OR "economic shocks" OR "income 1 shocks" OR "financial vulnerability" OR "economic vulnerability" OR "financial protection" OR "social protection" OR "safety nets" OR "consumption smoothing" OR "precautionary saving" OR "self-insurance" OR "informal insurance" OR "mutual aid" OR "shock absorption" OR "risk diversification") AND ("low-income households" OR "low-income families" OR "low-income individuals" OR "poor households" OR "poor families" OR "economically disadvantaged" OR "economically vulnerable" OR "financially excluded" OR "unbanked" OR "underbanked" OR "bottom of the pyramid" OR "base of the pyramid" OR "poverty" OR "extreme poverty" OR "rural poor" OR "urban poor" OR "rural households" OR "informal workers" OR "informal sector" OR "subsistence households" OR "vulnerable households" OR "working poor" OR "smallholder farmers" OR "developing countries" OR "Global South" OR "emerging economies" OR "least developed countries")) AND (EXCLUDE (PUBYEAR , "2026")) AND (LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ARTS")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")).

The initial Boolean search, applied across all years, yielded 851 records. Database-specific refinements were then applied cumulatively, as shown in Figure 1: records published in 2026 were excluded as an in-progress year; the sample was limited to four subject areas (Economics, Econometrics and Finance; Social Sciences; Business, Management and Accounting; and Arts and Humanities); and it was further restricted by document type (articles only), language (English only), source type (journals only), and publication stage (final only). Following this cumulative filtering, the final record pool comprised 251 publications, retained for title/abstract screening.

3.3 Eligibility Criteria

Studies are eligible for inclusion if they: (i) are published in English, as a final-stage journal article, before 2026; (ii) fall within the Social Sciences, Economics/Econometrics/Finance, Business/Management/Accounting, or Arts and Humanities subject areas; (iii) report or synthesise empirical findings on saving, borrowing, spending, insurance, or risk-coping behaviour; and (iv) focus on low-income, poor, financially excluded, or otherwise comparable vulnerable household populations, in any country. Purely theoretical papers with no empirical grounding, and papers concerned exclusively with high-net-worth or institutional finance, are excluded.

3.4 Screening and Quality Appraisal

The data selection and screening processes adhere to the PRISMA 2020 protocol (Page et al., 2021), which standardises the stages of identification, screening, eligibility, and inclusion. Figure 2 presents the review's current position in the PRISMA 2020 flow: the identification stage is complete and verified against the Scopus export described above, while the screening, eligibility, and inclusion stages remain pending and will be populated with actual counts and exclusion reasons once the procedures below have been executed.

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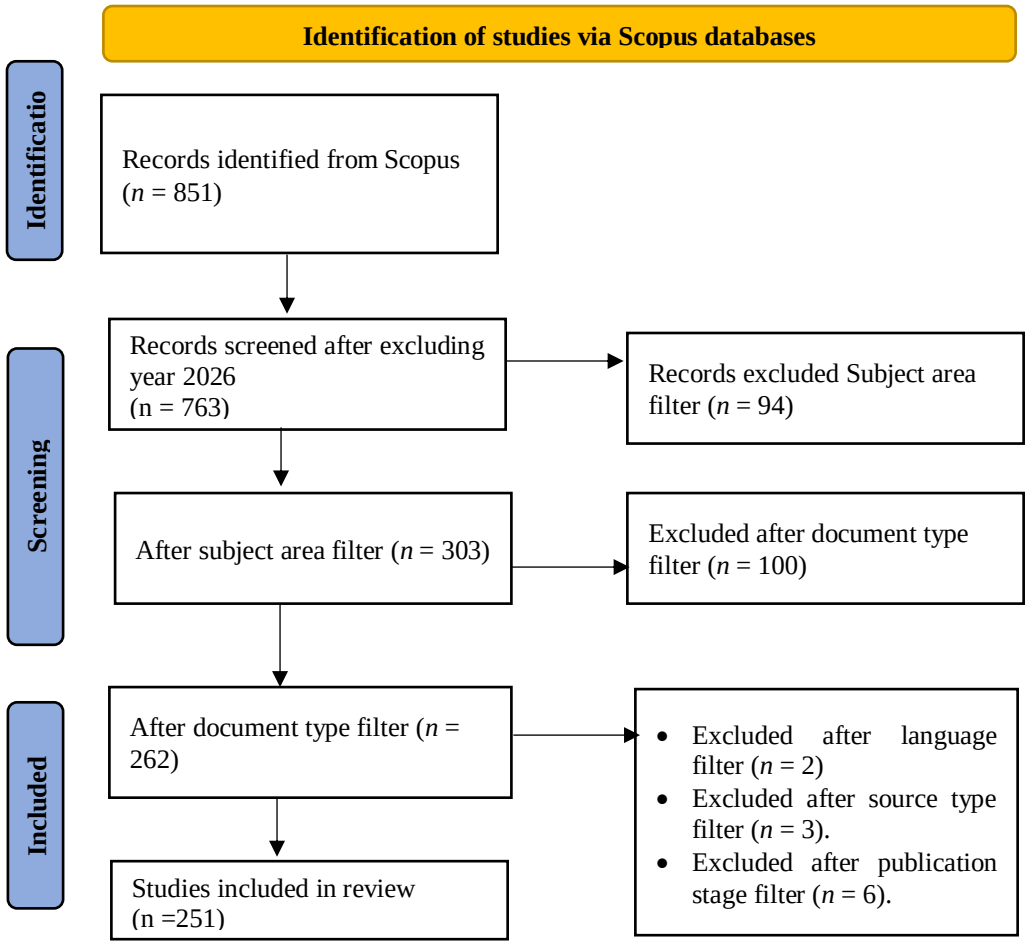


Figure 2. *PRISMA 2020 flow diagram illustrates the record identification, screening, and inclusion process.*

Title and abstract screening of the 251-record pool against the eligibility criteria above will be conducted independently by two reviewers using a structured screening tool (such as Rayyan), with a third reviewer resolving disagreements. Full texts of records passing this stage will then be retrieved and independently assessed against the same criteria, with reasons for exclusion recorded systematically. Studies passing full-text assessment will be quality-appraised using the Mixed Methods Appraisal Tool (MMAT), which provides category-specific criteria for five study designs: qualitative studies, randomised controlled trials, non-randomised studies, quantitative descriptive studies, and mixed-methods studies. Consistent with current MMAT guidance, studies will not be excluded on quality grounds alone; appraisal ratings will instead be reported alongside the extraction table and used to qualify the strength of conclusions drawn from lower-quality evidence. This systematic review was not prospectively registered in PROSPERO or any other public review registry.

3.5 Data Extraction and Synthesis

Once the included pool is finalised, data will be extracted into a structured table capturing, for each study, the author(s) and year, country or region of focus, population studied, financial behaviour(s) and coping mechanism(s) examined, methodological design, and key findings. Extracted data will be synthesised thematically following Thomas and Harden (2008), involving line-by-line coding, descriptive theme development, and generation of analytical themes across studies. Where the corpus permits, a bibliometric profile of the 251-record pool covering publication trends, keyword co-occurrence, and source distribution will complement the thematic synthesis by situating the qualitative findings within the wider structure of the literature. As this study is based entirely on previously published, publicly indexed academic literature, it does not involve human participants and does not require institutional ethical clearance; the search strategy, screening decisions, and data extraction procedures documented above are intended to allow the review to be independently replicated or audited.

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IV. FINDINGS & DISCUSSION

4.1 Findings

This section presents the empirical findings of the bibliometric analysis, drawing on 251 Scopus-indexed publications spanning 1994 to 2025. Results are organized around the four research questions (RQ1-RQ4) guiding this study, integrating performance analysis (publication growth, journals, and country/author productivity), science mapping (keyword co-occurrence, thematic mapping, conceptual structure), and thematic evolution analysis to trace the historical development, intellectual structure, and emerging frontiers of research on financial behavior and risk management among low-income households.

4.1.1 Evolution of Research Output Over Time, Disciplinary Orientation, and Geographical Distribution

Annual Publication Growth

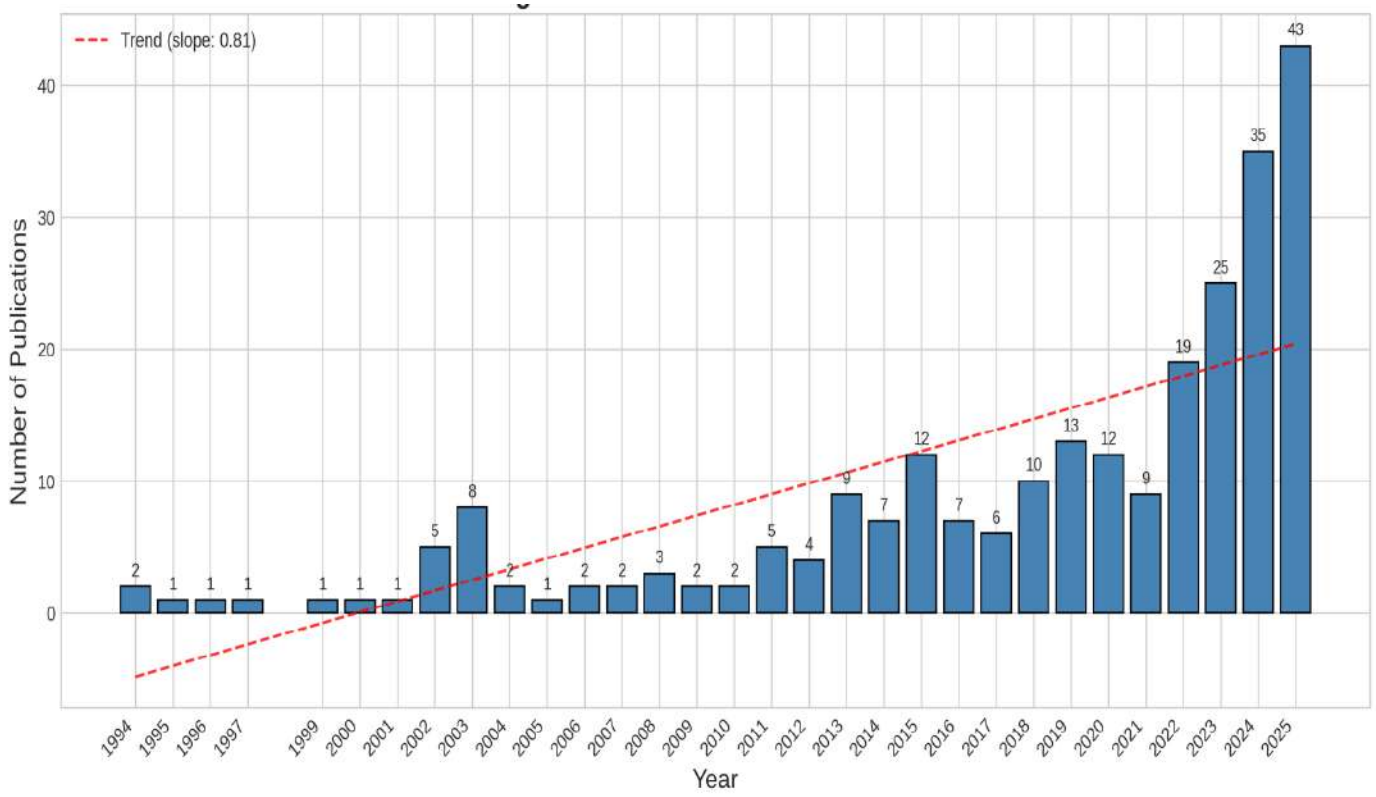


Figure 3

Annual Publication Growth (1994-2025)

Figure 3 shows a clear and accelerating upward trajectory in scholarly output on financial behavior and risk management among low-income households. Between 1994 and 2001, publications were sparse, rarely exceeding one or two papers per year, reflecting the field's nascent and largely exploratory stage, anchored in foundational work on risk-sharing and consumption smoothing in developing-country contexts. A modest uptick appears around 2002-2003 (5 and 8 publications respectively), followed by a period of stagnation through the mid-2000s.

From 2011 onward, output rises steadily, crossing double digits from 2015 (12 publications) and climbing sharply after 2018. The most striking growth occurs in the last five years of the study window: publications rose from 19 in 2022 to 43 in 2025 alone representing the single highest publication count in the dataset. The fitted trend line (slope = 0.81) confirms a statistically consistent long-run growth pattern, but the concentration of nearly 40% of all publications within 2022-2025 indicates that the field has entered a distinct phase of accelerated maturity, most plausibly driven by heightened global attention to household financial resilience following the COVID-19 pandemic, inflationary shocks, and the expansion of digital and inclusive finance agendas.

Leading Outlets and Disciplinary Orientation

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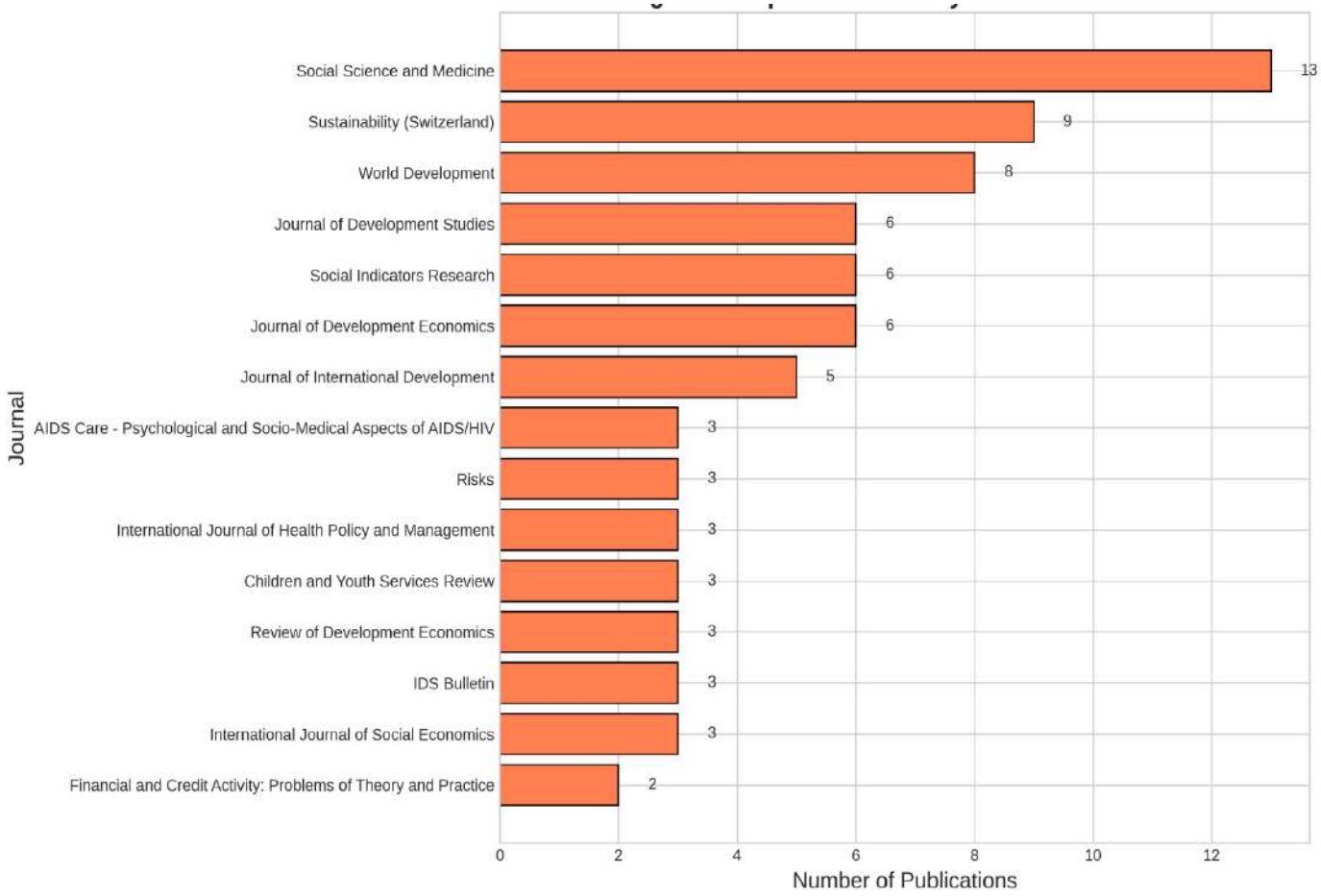


Figure 4
Top 15 Journals by Publication Count

Figure 4 shows that, Social Science and Medicine leads the outlet ranking with 13 publications, followed by Sustainability (Switzerland) with 9 and World Development with 8. This distribution signals a strongly interdisciplinary orientation: the field is anchored simultaneously in public-health/social-policy journals (Social Science and Medicine; AIDS Care; International Journal of Health Policy and Management), sustainability and development economics outlets (Sustainability, World Development, Journal of Development Studies, Journal of Development Economics, Journal of International Development), and specialised finance journals (Financial and Credit Activity: Problems of Theory and Practice; Risks; International Journal of Social Economics). The presence of Children and Youth Services Review further points to a welfare and social-protection dimension within the literature. No single journal dominates the field (the top journal accounts for under 4% of total output), confirming that financial behavior among low-income households is a genuinely cross-disciplinary research domain rather than one owned by a specific finance or economics sub-field.

Geographical Distribution and Cross-Country Collaboration

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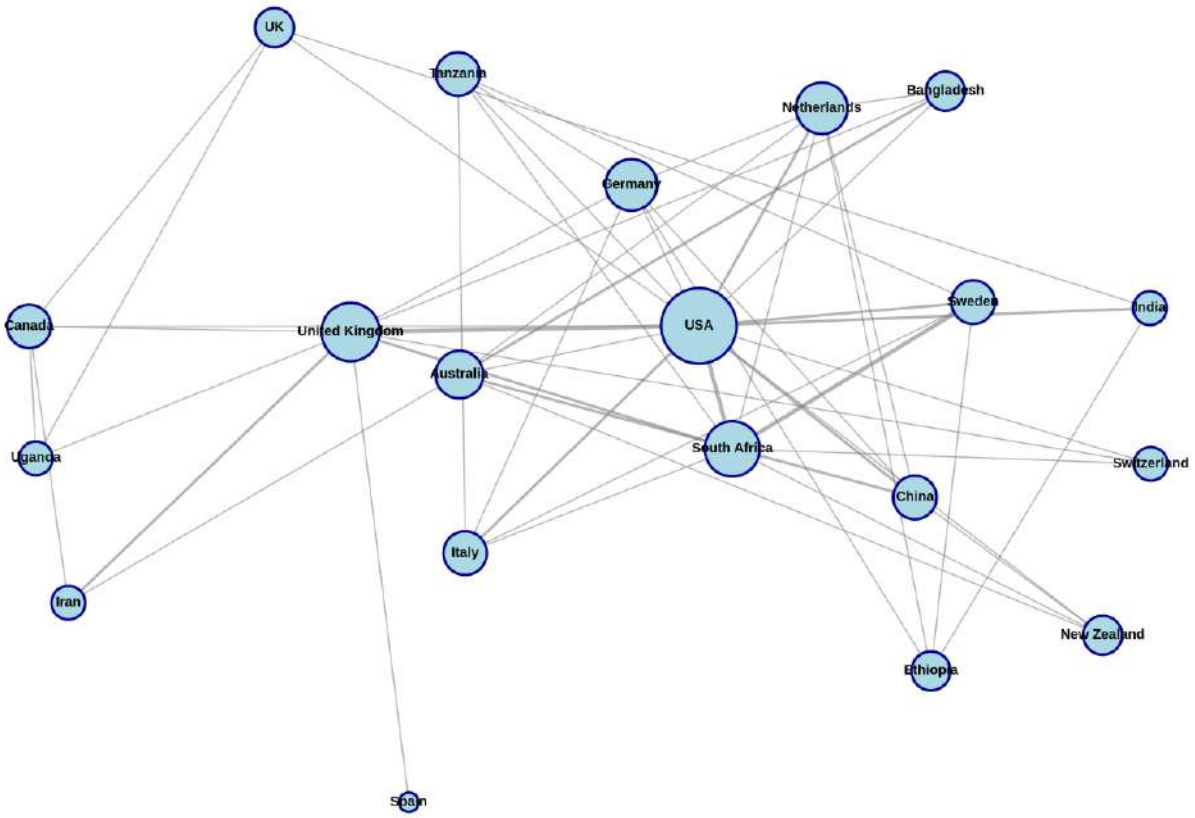


Figure 5
Country Collaboration Network

The country collaboration network (Figure 5) and the country-productivity panel of the three-field plot (Figure 6) jointly demonstrate that the USA is the dominant node in this research domain, with 62 publications and the largest number of collaborative ties connecting to the United Kingdom, South Africa, Sweden, China, the Netherlands, Australia, Bangladesh, and several other nodes. India (23) and the United Kingdom (21) form the next tier of productive countries, followed by China and an 'Unknown'/unaffiliated category (16 each), South Africa (11), Australia (10), and Malaysia (9). The network structure shows the United Kingdom and the USA acting as bridging hubs that connect a periphery of Global South countries with direct empirical exposure to low-income household contexts Uganda, Tanzania, Ethiopia, Bangladesh, and South Africa to a core of high-output Global North research institutions. Peripheral, weakly connected nodes such as Spain, Iran, Italy, and New Zealand indicate emerging but still isolated national contributions, suggesting scope for deeper South-South and North-South collaborative ties in future research.

4.1.2 Most Influential Authors, Journals, Institutions, Countries, and Publications

Three-Field Overview of Productivity

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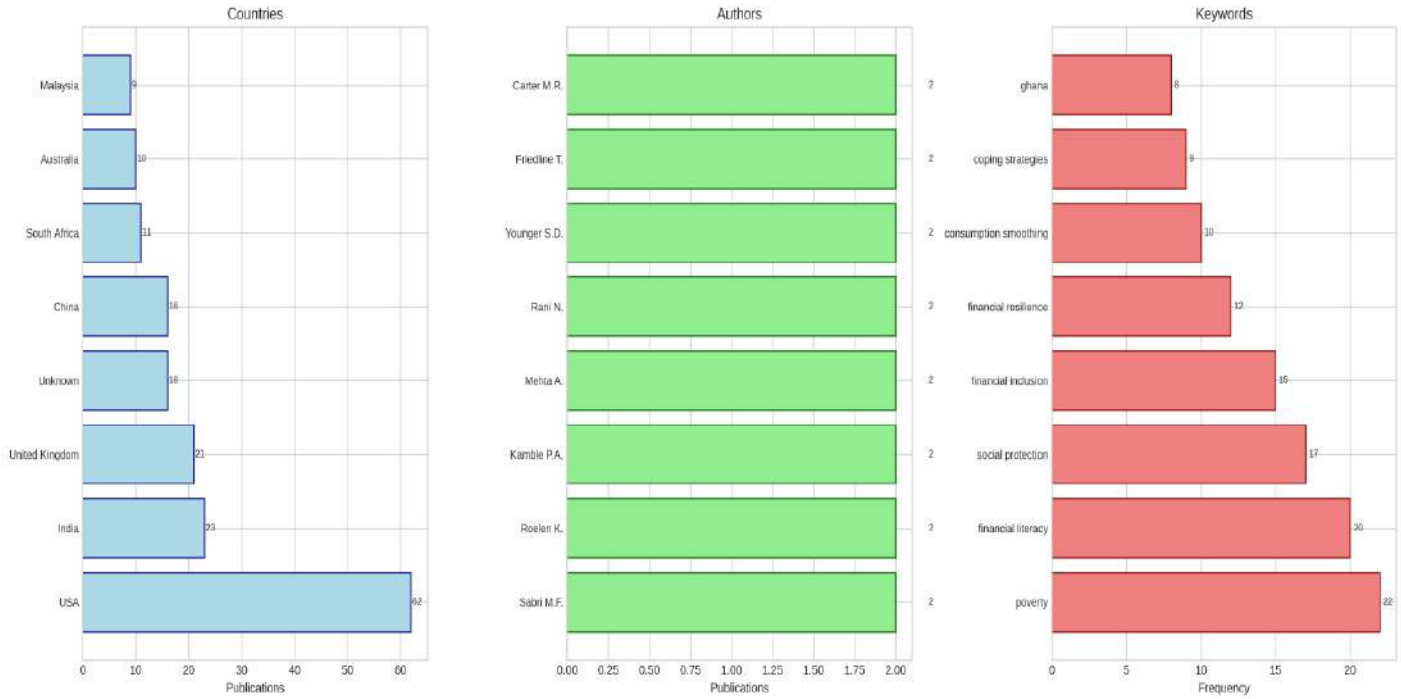


Figure 6
Three-Field Plot (Countries - Authors - Keywords)

The three-field plot in Figure 6 provides an integrated view of the field's leading contributors. On the country dimension, the USA (62), India (23), and the United Kingdom (21) are confirmed as the most productive national contexts. On the author dimension, a cohort of scholars Sabri M.F., Roelen K., Kamble P.A., Mehta A., Rani N., Younger S.D., Friedline T., and Carter M.R. each contribute two publications within the dataset, indicating a relatively flat productivity distribution without a small number of highly dominant authors, which is typical of an emerging, interdisciplinary field still consolidating its core group of specialists. On the keyword dimension, poverty (22 occurrences) is the most frequent term, followed by financial literacy (20), social protection (17), financial inclusion (15), financial resilience (12), consumption smoothing (10), coping strategies (9), and Ghana (8), outlining the substantive core vocabulary of the domain.

Author Collaboration Structure

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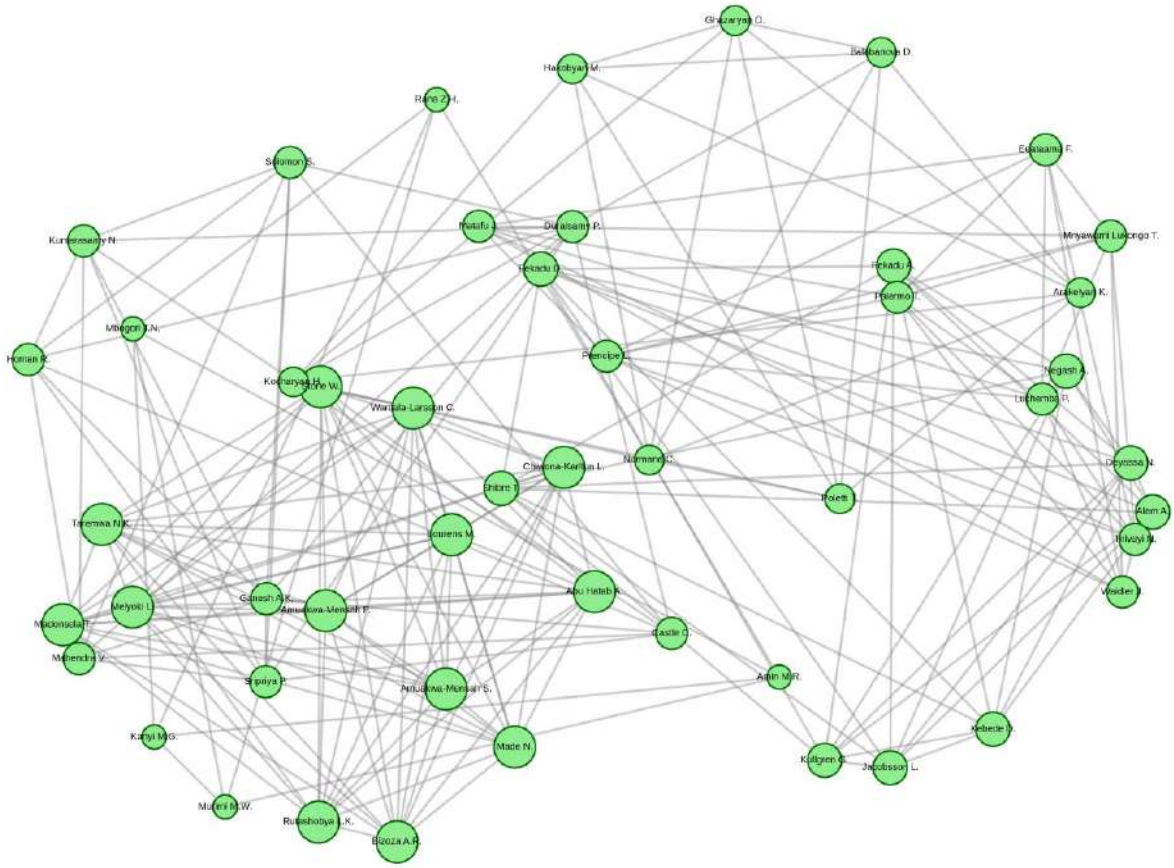


Figure 7
Author Collaboration Network (Top 50 Authors)

The author collaboration network (Figure 7) reveals a fragmented, multi-cluster structure rather than a single dominant invisible college. Several dense sub-clusters are visible: one centred on Fekadu D., Duraisamy P., Matafu J., and Prencipe L., with strong ties to Wamala-Larsson C., Chiwona-Karltun L., and Stone W.; a second cluster around Melyoki L., Madonsela T., Ganesh A.K., and Amuakwa-Mensah F./S., linked to Lourens M., Abu Hatab A., and Rutashobya L.K.; and a third, more geographically distinct cluster involving Ghazaryan O., Hakobyan M., Balabanova D., Arakelyan K., and Kocharyan H. This pattern indicates that collaboration in the field tends to occur within regionally or institutionally bounded teams (e.g., groups working on African, South Asian, or Eastern European/Central Asian household contexts) with comparatively few bridging authors connecting across clusters Fekadu D. and Palermo T. appear to be among the few authors with cross-cluster ties, functioning as important brokers of knowledge exchange between otherwise separate research communities.

4.1.3 Intellectual Structure, Collaboration Patterns, and Conceptual Themes

Keyword Co-occurrence Network

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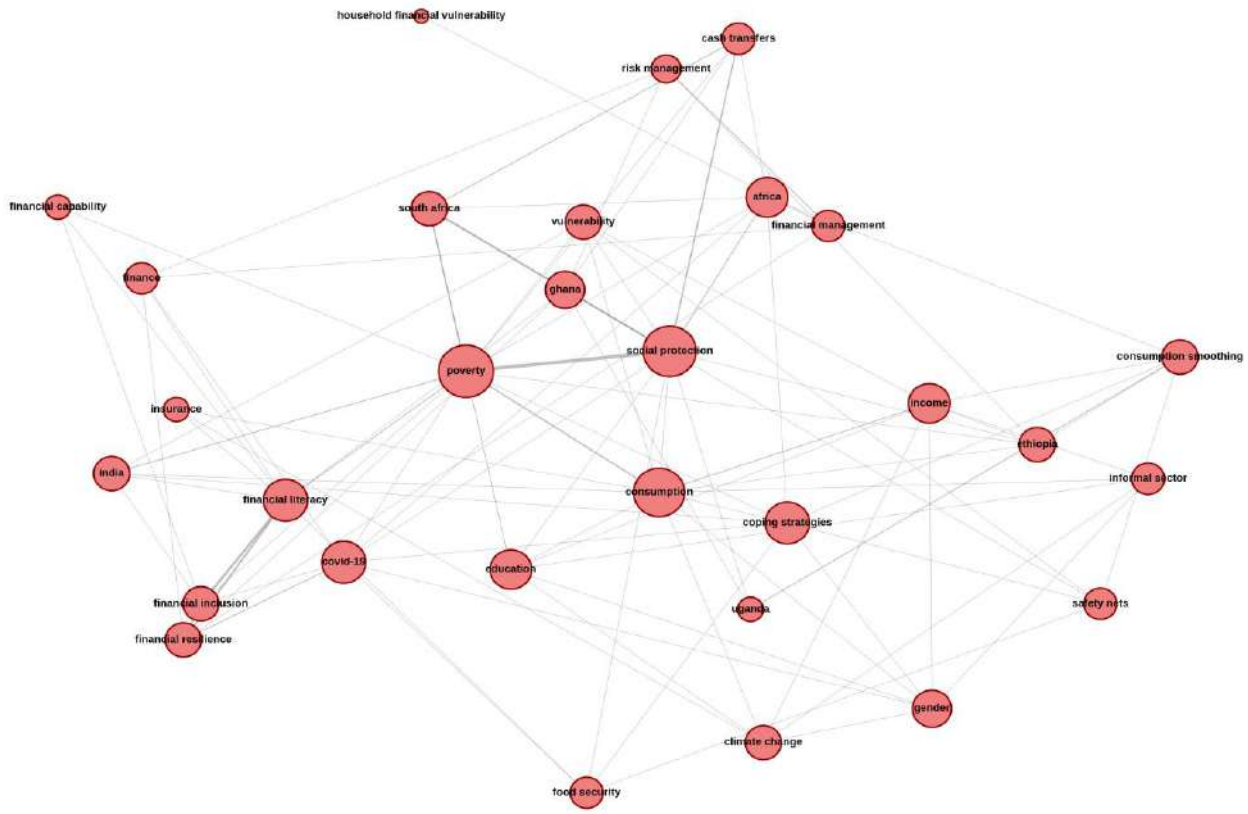


Figure 8
Keyword Co-occurrence Network (Top 30 Keywords)

The keyword co-occurrence network (Figure 8) positions poverty, social protection, and consumption as the largest and most densely connected nodes, forming the structural backbone of the field. Poverty co-occurs heavily with social protection, Ghana, south Africa, and financial literacy, reflecting a strong empirical tradition of studying social safety nets and cash-transfer programmes in African contexts (visible also through the thick edge linking cash transfers, risk management, Africa, and south Africa). A second, closely interlinked cluster financial literacy, financial inclusion, and financial resilience sits adjacent to covid-19 and India, suggesting that financial-capability research has become closely intertwined with pandemic-related shocks and inclusion agendas in South Asia. A third cluster around coping strategies, consumption smoothing, income, and informal sector connects to climate change, food security, and gender at the network's periphery, marking these as thematically adjacent but less centrally embedded topics. The isolated node household financial vulnerability, with only a single weak tie, signals a conceptually important but still underdeveloped keyword warranting further integration into the field's core vocabulary.

Thematic Map: Motor, Basic, Niche, and Emerging Themes

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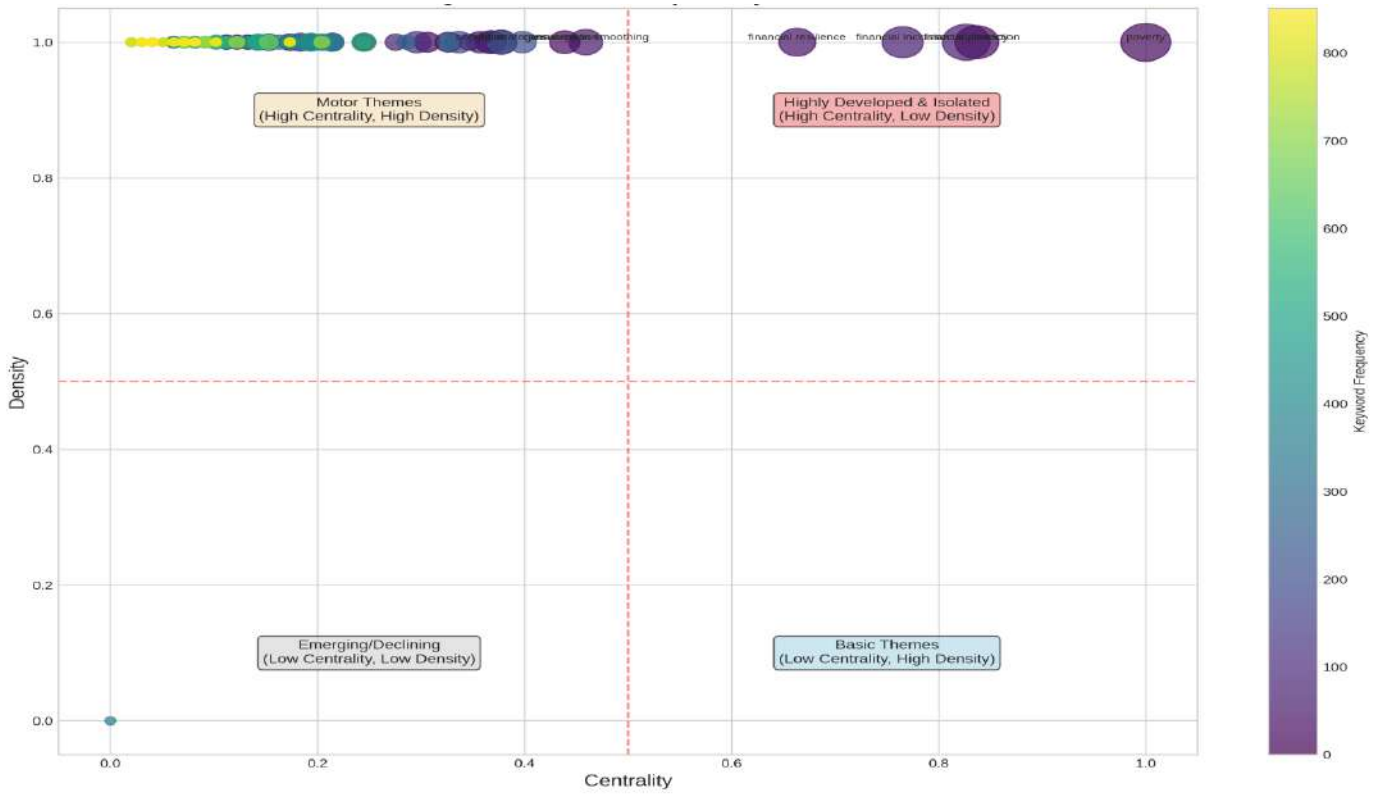


Figure 9
Thematic Map of Keywords (Centrality-Density Quadrants)

The Callon thematic map (Figure 9) classifies the field's themes into four quadrants. In the upper-right 'Highly Developed and Isolated' quadrant, poverty (the largest bubble, reflecting highest frequency), financial inclusion, financial literacy, and financial resilience appear as well-developed, self-contained themes with strong internal coherence (high density) but comparatively lower structural connectivity to the rest of the network (moderate centrality) meaning these are mature, specialised sub-fields. The upper-left 'Motor Themes' region (high centrality and high density) is densely populated with a large number of smaller, tightly packed keywords including coping strategies, consumption smoothing, social protection-adjacent terms, and country markers indicating that the field's true driving themes are diverse and highly interconnected rather than concentrated in a single dominant topic. Notably, no keywords populate the lower two quadrants ('Basic Themes' and 'Emerging/Declining Themes') with any prominence apart from a single low-frequency point near the origin, suggesting that, at the present stage of the field's development, virtually all identified keywords have achieved either high density or high centrality (or both) a pattern consistent with a research domain that, while young, has already developed a fairly coherent and well-integrated core structure.

Conceptual Structure (Multiple Correspondence / PCA Analysis)

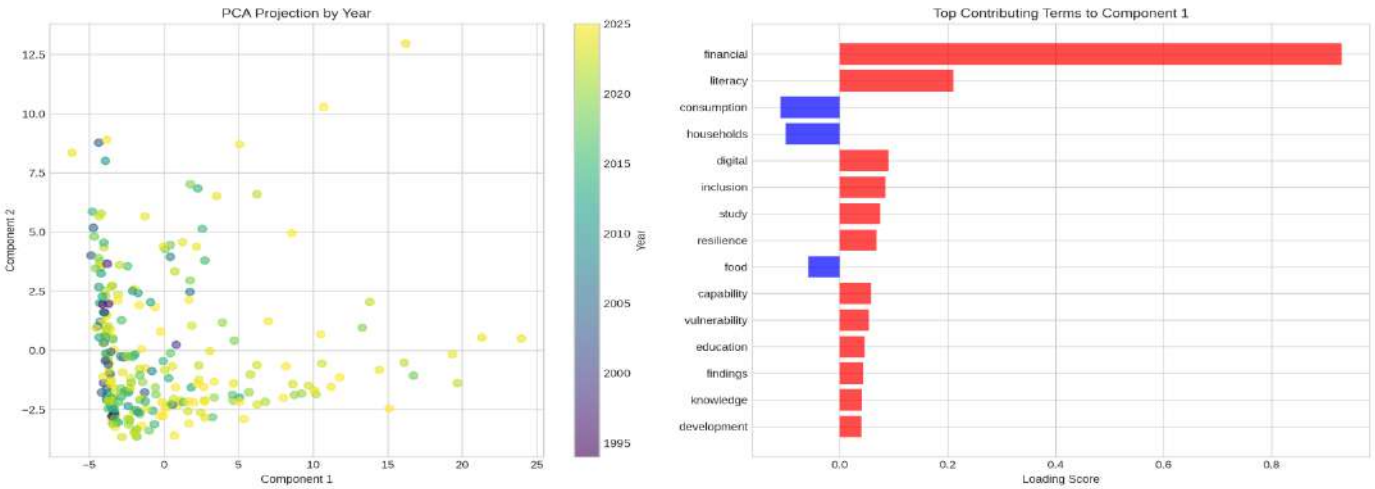


Figure 10
Conceptual Structure Analysis: PCA Projection and Term Loadings

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The conceptual structure map (Figure 10) further corroborates the thematic findings through a principal component analysis of document terms. The loading plot shows that Component 1 is most strongly and positively defined by the terms financial and literacy, alongside digital, inclusion, resilience, capability, and vulnerability, while consumption, households, and food load negatively indicating that this component effectively separates a 'financial-capability and inclusion' pole from a 'household consumption and food-security' pole within the literature. The PCA projection by year (left panel) shows that documents from 2020-2025 (yellow-green points) are dispersed further along the positive end of Component 1, including several outlier publications with scores above 10, whereas earlier documents (purple/blue, pre-2010) cluster tightly near the origin. This dispersion pattern reinforces the conclusion from Figure 1 that recent scholarship is not only more voluminous but also conceptually more diverse, increasingly exploring digital financial inclusion, resilience, and capability-oriented framings that were largely absent from earlier consumption- and poverty-centred research.

4.1.4 Emerging Trends and Future Research Directions

Thematic Evolution Over Time

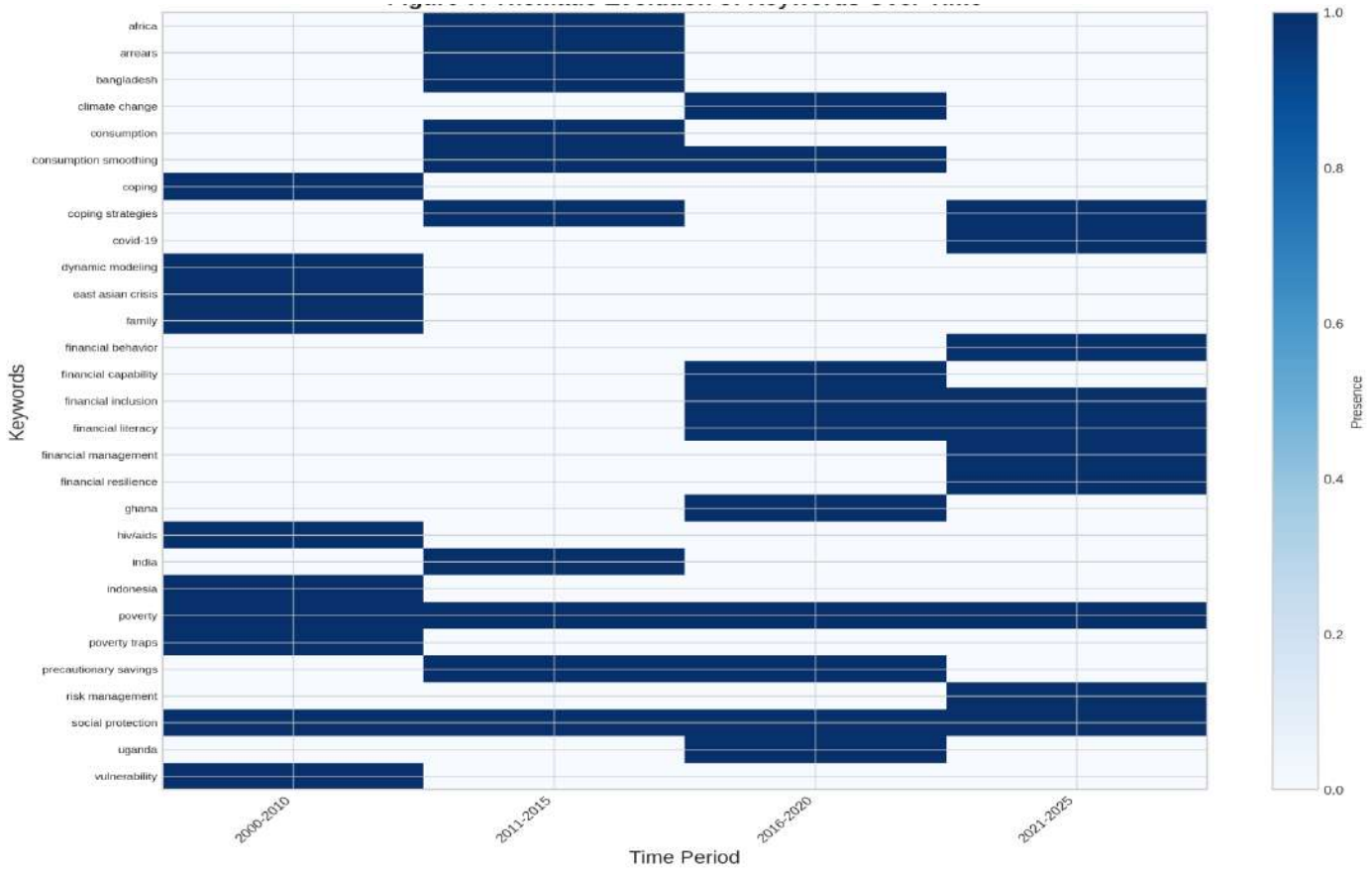


Figure 11

Thematic Evolution of Keywords Over Time (2000-2025)

The thematic evolution heatmap (Figure 11) traces how the field's vocabulary has shifted across five time periods. Early periods (pre-2011) were dominated by themes such as coping, dynamic modeling, east Asian crisis, hiv/aids, Indonesia, poverty traps, and vulnerability terms that largely disappear from the literature after 2010, reflecting the fading influence of the 1997-98 Asian financial crisis and HIV/AIDS-era household-vulnerability research. The 2011-2015 period introduced Africa, arrears, Bangladesh, consumption, and coping strategies, alongside a strengthening of consumption smoothing and precautionary savings, both of which persist for over a decade. From 2016 onward, an entirely new generation of themes emerges and remains active through to 2025: financial capability, financial inclusion, financial literacy, financial management, financial resilience, and risk management. Critically, covid-19 and climate change enter the vocabulary only from 2018-2020 onward and remain persistently present through 2021-2025, while coping strategies re-emerges strongly in this same recent window evidence that pandemic shocks and climate-related risk have become entrenched, rather than transient, drivers of the field's most recent research agenda. Poverty and social protection are the only two themes present continuously across every period since 2000, confirming their role as the enduring conceptual anchors of the domain.

Keyword Trend Dynamics

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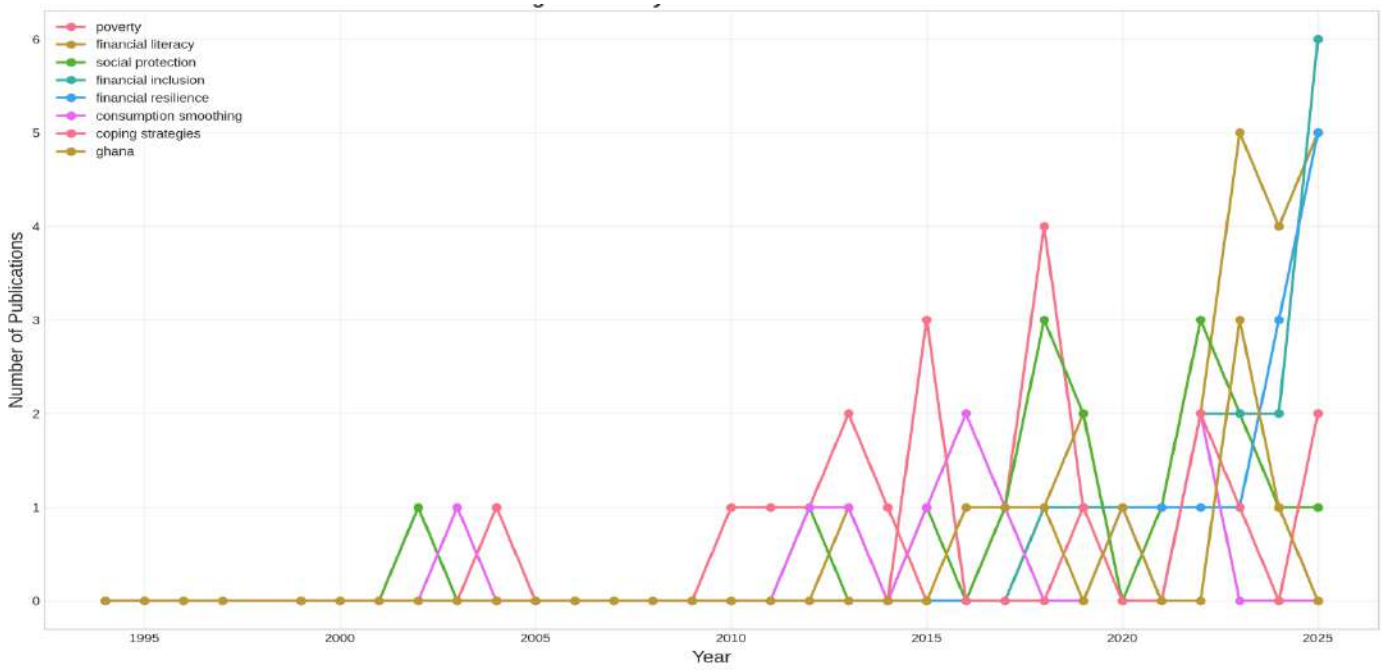


Figure 12
Keyword Trends Over Time (Selected High-Growth Keywords)

Figure 12 disaggregates the growth trajectories of the field's most dynamic keywords. Poverty and coping strategies show early but intermittent activity (peaking at 4 publications around 2018), while financial literacy and Ghana exhibit a distinctly late and steep rise, both surging to 5 publications by 2023 after remaining near zero for most of the observation window. The most pronounced recent-growth signals belong to financial inclusion and financial resilience: both terms are essentially absent before 2020 but rise sharply to 6 and 5 publications respectively by 2025 the steepest gradients in the entire chart. Social protection shows a more gradual, sustained rise, peaking at 3 publications in multiple recent years, while consumption smoothing, after an earlier peak in 2016, has tapered off in the most recent period, suggesting this specific framing is being superseded by the broader financial resilience terminology.

4.2 Discussion

4.2.1 Evolution of Research Output Over Time, Disciplinary Orientation, and Geographical Distribution

The accelerating publication growth observed in Figure 3, particularly the concentration of output after 2020, mirrors patterns reported in parallel bibliometric studies of adjacent fields. Wahyuni et al. (2022) similarly documented a marked rise in academic interest in financial literacy and financial behavior research following 2020, which they attributed to heightened global attention to household financial resilience during the COVID-19 pandemic. Likewise, Devender et al. (2025), analysing financial-literacy research among small and medium enterprises, reported a comparable late-stage acceleration in publication output, reinforcing the interpretation that the present growth spurt is not unique to the low-income household context but reflects a broader disciplinary shift toward household-level financial vulnerability research.

The dominance of the USA in both publication volume and collaborative centrality (Figure 5) is also consistent with prior bibliometric mappings of related domains. Sangma and Das (2024), examining financial inclusion research published between 2013 and 2022, identified the United States as the leading contributing country and Klapper L. as the most prominent author, a pattern that closely parallels the country-level concentration found in the present analysis. Gálvez-Sánchez et al. (2021) further observed that financial inclusion scholarship has grown continuously since the 2009 Pittsburgh G-20 Summit and the adoption of the Sustainable Development Goals, both of which elevated financial inclusion and household resilience as global policy priorities a plausible structural driver behind the sharp post-2015 growth trend evident in Figure 3. The strongly interdisciplinary journal spread in Figure 4 (spanning social medicine, sustainability science, development economics, and specialised finance outlets) is likewise consistent with the inherently cross-disciplinary nature of financial behavior research noted by Lusardi and Mitchell (2014), who argue that financial literacy and household financial decision-making sit at the intersection of economics, psychology, and public policy rather than within a single disciplinary silo.

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4.2.2 Most Influential Authors, Journals, Institutions, Countries, and Publications

The flat, low-frequency author-productivity distribution shown in Figure 6 (each leading author contributing only two publications) is consistent with the profile of an emerging interdisciplinary field that has not yet consolidated around a small set of prolific specialists. This mirrors the finding of Sangma and Das (2024), whose bibliometric mapping of financial inclusion research likewise identified a single most-prominent author, Klapper L., but otherwise a broadly dispersed author base, and echoes the classic observation that emerging research domains tend to organise around multiple parallel 'invisible colleges' of collaborators rather than a unified core group (Price, 1963). The multi-cluster structure of the author collaboration network (Figure 7) supports this reading directly: rather than one dominant collaborative core, the network comprises several regionally bounded teams with only a handful of cross-cluster brokers.

Notably, the presence of Palermo T. as one of the few cross-cluster bridging authors in Figure 7 is substantively meaningful rather than incidental: Palermo is a co-author of Handa et al. (2018), a landmark evaluation of unconditional cash-transfer programmes in sub-Saharan Africa, which is precisely the strand of poverty and social-protection research that dominates the keyword landscape in Figures 8, 9, and 10. This convergence between the network-analytic results and the substantive cash-transfer literature (Bastagli et al., 2016; Handa et al., 2021) lends external validity to the bibliometric mapping, confirming that the most centrally positioned authors in the network are also those most active in the empirical social-protection scholarship that underpins the field's core keyword cluster.

4.2.3 Intellectual Structure, Collaboration Patterns, and Conceptual Themes

The centrality of poverty, social protection, and consumption in the keyword co-occurrence network (Figure 8) reflects the long-standing empirical tradition of household risk-coping research pioneered by Townsend (1994) and Morduch (1995), who established consumption smoothing and informal risk-sharing as foundational constructs for understanding how low-income households manage income volatility in the absence of formal insurance markets. The strong linkage between poverty, Ghana, south Africa, and social protection observed in the network is similarly consistent with the substantial empirical literature on cash-transfer programmes in sub-Saharan Africa (Bastagli et al., 2016; Handa et al., 2021), which has documented significant impacts of unconditional and conditional transfers on household consumption, resilience, and vulnerability reduction across multiple African contexts.

The classification of financial inclusion, financial literacy, and financial resilience as 'highly developed and isolated' themes in the thematic map (Figure 9) is also consistent with the conceptual literature on financial resilience, which has repeatedly noted that resilience, capability, and vulnerability are theoretically related but methodologically fragmented constructs. Barrett and Constas (2014) argue that resilience for international development applications requires a unifying dynamic theory precisely because existing empirical measures remain scattered across disciplines, while Salignac et al. (2019) similarly caution that financial resilience has been operationalised through disconnected qualitative and quantitative indicators (e.g., Lusardi et al., 2021) that have not yet converged into a single coherent framework. This theoretical fragmentation offers a plausible explanation for why these themes appear dense and well-developed internally, yet only moderately connected to the rest of the keyword network they are mature but conceptually self-contained sub-literatures. Likewise, the isolated household financial vulnerability node in Figure 8, connected by only a single weak tie, corroborates observations that financial vulnerability, despite growing policy relevance since the 2007-08 financial crisis, still lacks a standardised definition that would allow it to integrate more fully with adjacent resilience and inclusion literatures.

4.2.4 Emerging Trends and Future Research Directions

The sharp, post-2020 emergence of covid-19 as a persistent keyword (Figure 11) and the steep growth of financial inclusion and financial resilience (Figure 12) align closely with global evidence documented by Demirgüç-Kunt et al. (2022) in the World Bank's Global Findex Database 2021, which reported that digital payments and formal financial access played a decisive role in determining whether households could withstand pandemic-related income shocks. This convergence suggests that the bibliometric trends identified here are not an artefact of the dataset but a genuine reflection of a real-world policy shift toward treating financial inclusion as a resilience-building tool rather than solely a poverty-reduction instrument. Similarly, the entrenchment of climate change as a keyword from 2018-2020 onward (Figure 11) is consistent with growing attention in both academic and policy circles to the financial exposure of low-income households to climate shocks; the U.S. Department of the Treasury (2023) and Miller et al., (2023) have both emphasised that low-income and climate-vulnerable households face compounding financial strain from extreme weather events, and that financial services savings, insurance, and digital payment access are increasingly framed as adaptation tools rather than peripheral concerns. The bibliometric emergence of this theme in the present dataset therefore appears to track an authentic and still-accelerating shift in the field's real-world policy relevance, rather than a purely academic trend.

The gradual displacement of consumption smoothing by financial resilience terminology (Figure 10) is also theoretically coherent: whereas consumption smoothing, rooted in the classical risk-sharing literature of Townsend (1994) and Morduch (1995), emphasises income and expenditure adjustments within a single-period risk-coping

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framework, resilience conceptualisations advanced by Salignac et al. (2019) and Barrett and Constas (2014) explicitly incorporate dynamic capacity the ability to recover from repeated or compounding shocks over time. The rise of the newer terminology in the recent literature (Figure 11) may therefore reflect a genuine conceptual evolution in the field, moving from static, single-shock consumption models toward more dynamic, multi-shock resilience frameworks better suited to the compounding nature of pandemic, climate, and economic shocks documented in recent years. Finally, the recommendation for greater cross-cluster and South-South collaboration is reinforced by bibliometric methodology literature: Donthu et al. (2021) and Zupic and Čater (2015) both note that science-mapping techniques such as those used here are particularly effective at revealing structural fragmentation in a field's collaboration network fragmentation that, if left unaddressed, can slow the translation of dispersed empirical findings (e.g., across Ghana, Uganda, Bangladesh, and South Africa) into a cumulative, generalizable body of knowledge on household financial risk management.

V. CONCLUSION & RECOMMENDATIONS

5.1 Conclusion

This study set out to map the intellectual structure, evolution, and emerging frontiers of research on financial behaviour and risk management among low-income households, using a bibliometric analysis of 251 Scopus-indexed journal articles published between 1994 and 2025. In response to RQ1, the analysis shows that publication output has accelerated sharply since 2020, with the United States, India, and the United Kingdom emerging as the field's most productive countries, and the UK and USA acting as bridging hubs linking Global North institutions to Global South research contexts. Addressing RQ2, the field is shown to be interdisciplinary and thematically dispersed across public-health, development-economics, and specialised-finance outlets, with a flat author-productivity distribution indicative of an emerging field yet to consolidate around a small group of dominant scholars. In relation to RQ3, keyword co-occurrence and thematic mapping identify poverty, social protection, and consumption as the field's structural backbone, with financial inclusion, financial literacy, and financial resilience constituting mature but comparatively isolated sub-literatures. Finally, in response to RQ4, thematic evolution analysis points to the entrenchment of COVID-19 and climate change as recent, persistent research themes, and to the gradual displacement of consumption-smoothing framings by financial-resilience terminology, reflecting a broader conceptual shift toward dynamic, multi-shock models of household risk management.

Collectively, these findings suggest that research on financial behaviour and risk management among low-income households is best characterised as a maturing but still fragmented interdisciplinary domain: rich in dispersed empirical contributions, but only loosely connected across its constituent themes, clusters, and geographic contexts. This fragmentation itself constitutes the study's central contribution: by making the field's structure visible, this review identifies concrete opportunities most notably around climate-related financial risk, digital financial inclusion, and cross-cluster collaboration for future research to consolidate what is currently a dispersed evidence base into a more cumulative and policy-relevant body of knowledge.

These conclusions should be read alongside some methodological limitations. The analysis draws on a single database, Scopus, and was restricted to English-language, final-stage journal articles, which may exclude relevant work indexed elsewhere or published as book chapters, working papers, or non-English scholarship. At the time of writing, the title/abstract screening, full-text eligibility assessment, and MMAT quality appraisal stages of the underlying systematic review had not yet been completed, so the bibliometric analysis characterises the broader 251-record Stage 2 pool rather than a fully screened and quality-appraised evidence base. In addition, bibliometric techniques such as keyword co-occurrence and thematic mapping depend on author-supplied keywords and abstract indexing conventions, which may under-represent emerging or interdisciplinary terminology, and, as with all citation-based analyses, the results may be shaped by citation practices, self-citation, and disciplinary differences in referencing norms.

5.2 Recommendations

Based on the findings and limitations above, the following recommendations are proposed.

For scholars, future empirical and conceptual work should prioritise the under-theorised but rapidly emerging themes identified in this review, particularly climate-related financial risk, digital financial inclusion, and household financial vulnerability, and should work toward integrating the currently isolated financial-inclusion, financial-literacy, and financial-resilience sub-literatures into a more unified theoretical account of household risk management. For policymakers and development practitioners, interventions designed to support low-income households should move away from treating shocks as isolated events and instead account for the compounding and repeated nature of contemporary risks, such as pandemics, climate events, and inflationary pressures, consistent with the shift from static consumption-smoothing framings toward dynamic financial-resilience models observed in this review.

For funders and research networks, the fragmented, regionally bounded collaboration network identified in this study points to a clear institutional opportunity: funders should prioritise cross-cluster and South-South collaborative

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initiatives that connect dispersed research communities and help consolidate this rapidly growing evidence base into a more cumulative and internationally comparable body of knowledge. For the present research programme, the immediate next step is to complete the pending title/abstract screening, full-text eligibility assessment, and MMAT quality appraisal stages, followed by the thematic synthesis of individual study findings, so that the present bibliometric mapping can be complemented by a fully synthesised, study-level account of the evidence.

Declaration of Interest

The authors declare that they do not have any known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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