

Financial Saving Behavior in the Digital Age: A Systematic Review of Determinants and Emerging Research Directions

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Abstract

Saving is the household behaviour on which financial security, retirement adequacy and macroeconomic capital formation all rest, yet the research explaining it is dispersed across economics, psychology, consumer studies and, more recently, financial technology. This paper systematically reviews the literature and organises it through the Antecedents–Decisions–Outcomes (ADO) framework of Paul and Benito (2017), following the reporting conventions of the PRISMA 2020 statement. A Scopus query covering 2010–2026 returned 2,102 records; 1,170 English-language journal articles formed the bibliometric corpus, and 324 openly accessible articles that engage substantively with household or individual financial saving formed the synthesis corpus. Bibliometric mapping in VOSviewer traces the field's growth, its geographic concentration and its thematic clusters; the ADO synthesis then organises what the field actually claims. Antecedents divide into five families — theoretical, socio-economic, behavioural, capability-and-institutional, and technological. Decisions extend well beyond how much to save, encompassing participation, channel, purpose, and the increasing delegation of decision-making to automated tools. Outcomes run from saving consistency through emergency-fund adequacy and retirement readiness to financial well-being and resilience. Three imbalances stand out: an evidence base concentrated in high-income economies, a near-monopoly of cross-sectional designs, and a technology literature that has grown quickly but remains thin relative to the pace of change in household financial channels. The paper closes with a research agenda organised along theoretical, methodological, contextual and technological lines.

Keywords: ADO framework; Financial saving behaviour; Household saving; Financial literacy; Financial capability; Financial inclusion; FinTech; Bibliometric analysis; Systematic literature review

1. Introduction

How much a household sets aside, and how reliably it does so, shapes almost everything else about its financial life. Saving absorbs the income shock that would otherwise become debt, converts a distant goal into a reachable one, and determines whether retirement arrives as a plan or as a problem (Brüggen et al., 2017; Netemeyer et al., 2018). The same behaviour, aggregated, supplies the domestic capital that funds investment and deepens financial markets (Deaton, 1992; Modigliani & Brumberg, 1954). Two decades of rising living costs, demographic ageing and rapid change in how financial services are delivered have made the underlying decision harder to make well, which is a large part of why the research effort devoted to it has grown so sharply (OECD, 2023; World Bank, 2022).

The earliest systematic accounts treated saving as an optimisation problem. The Life-Cycle Hypothesis and the Permanent Income Hypothesis both cast the saver as a forward-looking agent smoothing consumption against

expected lifetime resources (Friedman, 1957; Modigliani & Brumberg, 1954). Those accounts remain indispensable, but they leave a stubborn residual: households with closely comparable incomes, ages and family structures save at strikingly different rates. Explaining that residual is what drew psychology, behavioural economics, consumer research and public policy into the field, and what produced the constructs — self-control, present bias, financial literacy, financial capability, financial inclusion — that now dominate empirical work (Ajzen, 1991; Lusardi & Mitchell, 2014; Shefrin & Thaler, 1988; Xiao & O'Neill, 2018).

A second disturbance has been technological. Mobile banking, digital payment rails, goal-based savings applications, algorithmic advice, and automated transfer defaults have altered not merely the cost of saving but also the shape of the decision itself (Demirgüç-Kunt et al., 2022; Morgan & Long, 2020). A household that once decided monthly whether to visit a branch may now decide once whether to enable an automatic sweep. Alongside this, financial inclusion and financial education have become explicit policy instruments rather than background conditions (Atkinson & Messy, 2012; OECD, 2020). The research question has correspondingly shifted from why households save to how behavioural dispositions, institutional design, and digital infrastructure jointly determine whether they do so.

What the field lacks is not evidence but organisation. Individual studies typically isolate a single determinant — income, literacy, a behavioural trait, or a demographic contrast — and estimate its effect within a single national setting (Lusardi et al., 2017; Xiao & Porto, 2017). Existing reviews inherit that narrowness, concentrating on a single construct or region, and few pair quantitative mapping of the literature with a framework capable of holding its substantive claims within a single structure. The consequence is that a reader cannot easily see which determinants have been examined heavily and which have not, what saving decisions have actually been modelled, or which outcomes the field treats as the dependent variable of interest.

This review addresses that problem by combining two complementary procedures. Bibliometric mapping in VOSviewer establishes the field's shape — its growth curve, its geography, its clusters and its most-cited contributions (Van Eck & Waltman, 2010). A framework-based synthesis then organises the substantive findings using the Antecedents–Decisions–Outcomes (ADO) structure proposed by Paul and Benito (2017). ADO was designed for exactly this situation: a literature rich in determinant-level findings but poor in shared architecture. Thannikkottu et al. (2023) demonstrate its value in a review of humour advertising, where it converted a scattered set of typology studies into an ordered account of what precedes a decision, what the decision consists of, and what follows from it. The same three-part logic maps cleanly onto saving, where the antecedent conditions, the saving decision itself, and its downstream consequences are routinely conflated in empirical work.

The study makes three contributions. It documents the intellectual structure and growth of research on financial saving behaviour from 2010 to 2026 using a transparent, reproducible bibliometric procedure. It supplies the field with an organising framework, showing that the determinants studied to date fall into five antecedent families, that saving decisions are multidimensional rather than scalar, and that outcomes operate at four distinct levels. And it converts the resulting map into a research agenda specifying where theory, method, context and technology each need work. Researchers designing studies, policymakers designing interventions, and institutions designing products should each find the map usable for different purposes.

The remainder of the paper is organised as follows. Section two delimits the research domain and states the guiding questions. Section three sets out the review protocol. Section four reports the bibliometric analysis. Section five develops the ADO conceptual framework and synthesises the reviewed evidence within it. Section six discusses the implications of the synthesis and proposes directions for future work. Section seven concludes with contributions, implications and limitations.

2. Research Domain

Financial saving behaviour occupies an awkward position between disciplines, which is both why it attracts wide attention and why its literature resists summary. Economists have generally treated saving as a residual — income not consumed — and modelled its determinants at the level of the budget constraint. Behavioural and consumer researchers instead treat it as a process comprising intention formation, budgeting, self-regulation, goal specification, and periodic revision (Xiao & Porto, 2017). The two framings yield different measures, designs,

and findings, and comparisons between them are often invalid even when the reported construct shares the same name.

The present review adopts the process framing and bounds its scope accordingly. It covers saving undertaken by individuals and households. It excludes corporate, governmental and aggregate national saving, which respond to a different set of forces. It also excludes a large adjacent literature that shares the phrase 'saving behaviour' while addressing an unrelated construct — energy saving, water conservation, and cost or efficiency saving in operational and manufacturing settings. That exclusion is not incidental. As Section four shows, environmental saving research constitutes one of the largest keyword clusters returned by any reasonable query on this topic, and failing to separate it silently contaminates both bibliometric counts and thematic conclusions.

Within these boundaries, the field remains fragmented in a specific and correctable way. Determinants have been studied extensively but in isolation; saving decisions are usually collapsed into a single continuous measure; and outcomes are frequently left implicit. A framework-based content analysis addresses each of these deficits directly, which is why ADO — rather than a purely thematic or purely bibliometric approach — was chosen here (Paul & Benito, 2017; Thannikkottu et al., 2023). Three research questions follow:

RQ1. How has the intellectual structure of financial saving behaviour research developed between 2010 and 2026 in terms of output, geographic distribution, publication outlets and thematic clustering?

RQ2. What antecedents, saving decisions and outcomes does the literature identify, and how do they relate to one another within an ADO structure?

RQ3. Which conceptual, methodological, contextual and technological gaps remain, and what research agenda would address them?

3. Methodology

The review follows the Systematic Literature Review (SLR) tradition, which prescribes an explicit, auditable procedure for locating and appraising studies, rather than the selective reading that characterises narrative reviews (Tranfield et al., 2003). Reporting follows the PRISMA 2020 statement, whose four-stage structure — identification, screening, eligibility and inclusion — makes each decision about the corpus visible and reproducible (Page et al., 2021). Two analytical procedures are applied to the resulting corpus: bibliometric mapping, which characterises the literature quantitatively, and framework-based content analysis using ADO, which organises it substantively. Figure 1 presents the complete selection procedure.

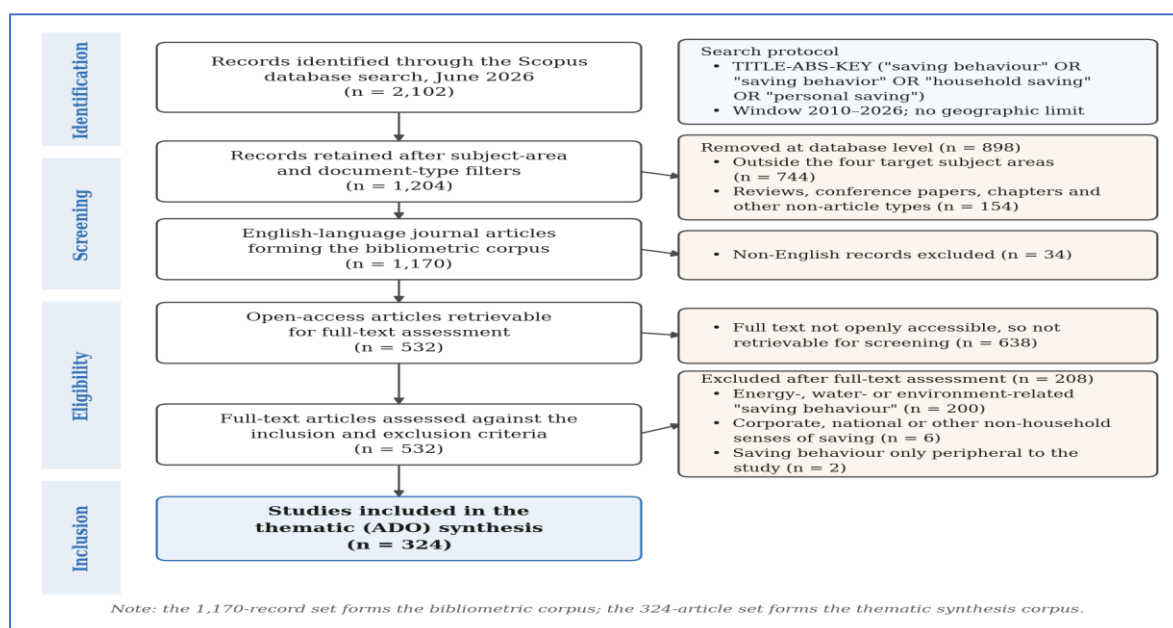


Figure 1. Study selection flowchart following the PRISMA 2020 protocol.

3.1 Identification

Scopus was the sole database used for identification. Its coverage of economics, finance, business, and the social sciences is broad, its indexing is sufficiently consistent to support co-occurrence and coupling analyses, and its export format includes the affiliation, keyword, and citation fields that bibliometric software requires (Donthu et al., 2021). Restricting identification to a single high-quality database trades some recall for a cleaner, verifiable corpus — a trade-off the review revisits in its limitations (Dua et al., 2022).

The search was executed in June 2026 using the following query:

TITLE-ABS-KEY ("saving behaviour" OR "saving behavior" OR "household saving" OR "personal saving")

Both British and American spellings were included, since indexing does not reconcile them. The window ran from 2010 to 2026, long enough to capture the field's modern development and its response to the 2020 pandemic and the subsequent inflationary period, with no geographic restrictions imposed. The query returned 2,102 records.

3.2 Screening and Eligibility

Screening proceeded using database-level filters applied in a fixed sequence, each of which is recorded in Table 1. The subject area was restricted to Economics, Econometrics and Finance; Social Sciences; Business, Management and Accounting; and Multidisciplinary, thereby removing 744 records drawn largely from engineering, energy and environmental science. Document type was restricted to journal articles, thereby excluding a further 154 conference papers, reviews, chapters, and editorial items, on the grounds that peer-reviewed articles carry a more uniform standard of independent review (Lim et al., 2021). Language was restricted to English, resulting in the removal of 34 records. The 1,170 articles surviving these filters constitute the bibliometric corpus, and all bibliometric results reported in Section 4 are computed on this set.

Table 1. Database search and filtering process.

Step	Search and filtering operation	Records remaining
1	Initial Scopus search: TITLE-ABS-KEY ("saving behaviour" OR "saving behavior" OR "household saving" OR "personal saving"), 2010–2026	2,102
2	Subject areas limited to Economics, Econometrics and Finance; Social Sciences; Business, Management and Accounting; Multidisciplinary	1,358
3	Document type limited to journal articles	1,204
4	Language limited to English — bibliometric corpus	1,170
5	Limited to open-access publications retrievable in full text	532
6	Eligibility screening against the criteria in Table 2 — synthesis corpus	324

Eligibility screening then applied substantive criteria that database filters cannot express. Restricting to open-access publications yielded 532 articles whose full texts could be retrieved and read, and each was assessed against the criteria in Table 2. The decisive criterion was construct validity: whether the article's 'saving behaviour' refers to the financial behaviour of a household or an individual, or to something else that shares the phrase.

Table 2. Inclusion and exclusion criteria applied at the eligibility stage.

Inclusion criteria	Exclusion criteria
Studies of saving behaviour at the individual, personal or household level	Studies of corporate, organisational, governmental or aggregate national saving
Studies examining antecedents, dimensions, theories, decisions or outcomes of financial saving behaviour	Studies of energy saving, water conservation, environmental conservation, or operational and manufacturing cost saving
Empirical or conceptual journal articles contributing directly to the financial saving behaviour literature	Articles in which saving behaviour appears only as a peripheral or incidental construct
Articles reporting sufficient detail on constructs, method and findings to permit content analysis	Articles whose reporting is insufficient for framework-based coding
Peer-reviewed articles published in English between 2010 and 2026 and indexed in Scopus	Conference proceedings, book chapters, editorials, reviews and grey literature

That criterion removed a substantial fraction of the set. Two hundred articles addressed energy, water or environmental conservation behaviour; six addressed corporate, national or other non-household senses of saving; and two mentioned saving only in passing. This is a large exclusion — 39 per cent of the open-access set — and it is the single most consequential methodological decision in the review. Retaining those articles would have inflated every count reported below and produced thematic conclusions about pro-environmental behaviour that were presented as conclusions about household finance.

3.3 Inclusion

Three hundred and twenty-four articles satisfied all criteria and form the synthesis corpus. Following the qualitative-synthesis logic appropriate to a body of work this heterogeneous in design, measurement and setting, content analysis rather than meta-analysis was used (Bearman & Dawson, 2013). Meta-analytic pooling would require a common effect measure, which this literature lacks; instead, framework-based content analysis extracts the constructs each study examines and situates them within a shared structure.

3.4 Analytical Approach

Bibliometric analysis was performed in VOSviewer version 1.6.20 on the 1,170-record bibliometric corpus, covering annual output, country-level contribution and bibliographic coupling, publication outlets, citation concentration, and author-keyword co-occurrence (Van Eck & Waltman, 2010). Content analysis was performed on the 324-article synthesis corpus. Each article was read and coded for the antecedent constructs it examines, the saving decision it models, and the outcome it treats as the dependent variable. Codes were then consolidated into the three ADO components and, within antecedents, into five families. Where the reported prevalence of a construct is quoted below, it refers to the proportion of the 324 articles whose title, abstract or author keywords engage that construct as suggested by Bapat et al. (2022).

4. Bibliometric Analysis

This section answers RQ1. It characterises the 1,170-record bibliometric corpus along four dimensions — output over time, geographic contribution, publication outlets, and citation concentration — and, where informative, contrasts the full corpus with the 324 articles retained for synthesis. That contrast is itself a finding: the gap between the two series measures how much of the apparent literature on 'saving behaviour' is not about household finance at all.

4.1 Publication Trends

Figure 2 plots annual output for both sets. The full corpus divides into three regimes. From 2010 to 2014 the field was small and flat, producing between 24 and 36 articles a year with no discernible trend. A step change occurred in 2015, when output jumped to 65 and then held between 58 and 67 through 2019. A second, larger acceleration followed 2020: output reached 100 that year, then moved between 88 and 113 through 2024, and peaked at 138 in 2025. The 70 records dated 2026 reflect a search executed in June of that year and should be read as a partial count rather than a decline.

The synthesis series tells a related but distinct story. Household-finance saving research grew from four to eight articles a year in the early 2010s to 53 in 2025 — a steeper proportional increase than the full corpus. Its share of the corpus also rose, from between roughly one in ten and one in five articles in the early 2010s to between a quarter and two-fifths from 2020 onward. Both series accelerate after 2020, and the coincidence with the pandemic period is unlikely to be accidental: precautionary saving, emergency-fund adequacy and income-shock resilience all became salient policy questions simultaneously. What the two series jointly indicate is a field that is growing quickly and, at the same time, becoming somewhat more concentrated on household financial behaviour rather than less.

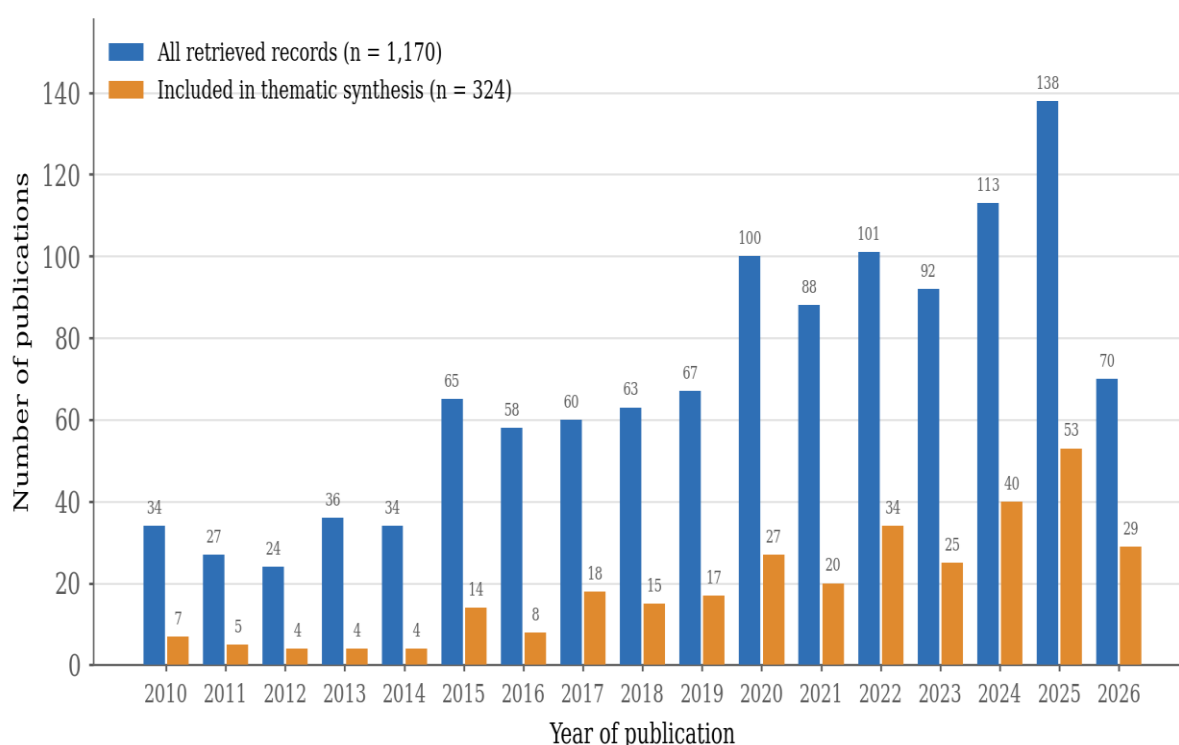


Figure 2. Annual publication output, 2010–2026, for the bibliometric corpus (n = 1,170) and the synthesis corpus (n = 324).

4.2 Geographic Contribution and Bibliographic Coupling

Figure 3 reports the twelve most productive countries, counted by the presence of at least one author affiliation. The United States leads decisively with 268 records, followed by China with 171 and the United Kingdom with 87. Japan, Germany, Australia, Italy and the Netherlands each contribute between 47 and 69. India, Malaysia, Indonesia and France complete the group.

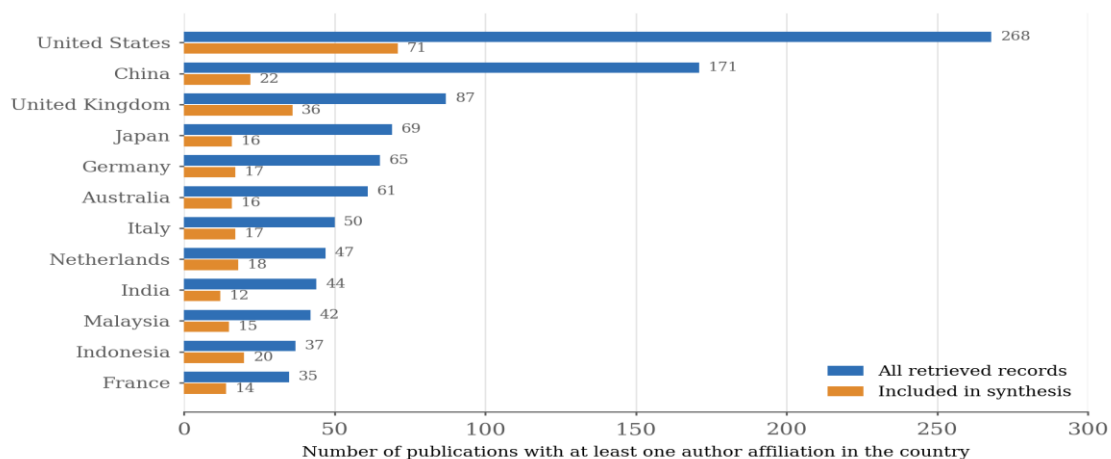


Figure 3. Leading contributing countries by author affiliation.

Restricting attention to the synthesis corpus rearranges the ranking in a way that the full-corpus figures conceal. China falls from 171 records to 22, and Japan from 69 to 16 — both countries contribute heavily to the corpus, but a large share of that contribution is in energy and environmental-saving research rather than household finance. Indonesia moves in the opposite direction, retaining 20 of 37 records, and the United Kingdom retains 36 of 87. The United States remains first on both measures. The practical implication is that a bibliometric ranking computed from an unscreened query would substantially misstate which countries are actually producing research on household saving.

Bibliographic coupling, shown in Figure 4, links countries whose publications draw on overlapping reference bases, thereby indicating shared intellectual foundations rather than co-authorship. The United States and China anchor the network, each maintaining dense links to most other nodes. A recognisable European group forms around the United Kingdom, Germany, the Netherlands, Italy and Spain; an East and Southeast Asian group around China, Japan, South Korea, Malaysia, Viet Nam and Indonesia; and a smaller cluster connects Australia, New Zealand and the Nordic countries. India, South Africa, Ghana, Ethiopia and Tanzania appear on the network but with sparse links, indicating that research from these settings is being produced but is not yet densely integrated into the field's shared citation base.

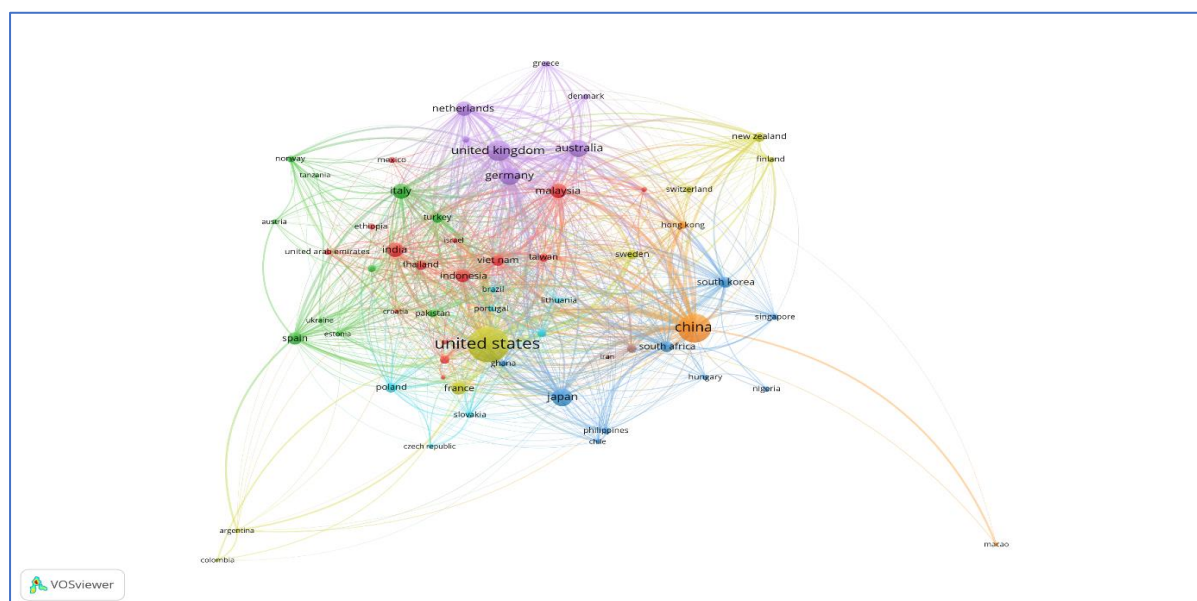


Figure 4. Bibliographic coupling network of contributing countries (VOSviewer).

Two structural features of the network deserve emphasis. Coupling density is heavily concentrated among high-income economies, which means the theoretical apparatus the field shares was developed largely in settings with mature financial systems, high formal account penetration, and established pension architecture. And the low-income countries where saving constraints bind hardest are precisely those least integrated into that shared base. Section 6 returns to this asymmetry.

4.3 Publication Outlets and Citation Concentration

The synthesis corpus is distributed across many outlets, with no single journal dominating. Table 3 lists the ten most frequent. Sustainability leads with nine articles, followed by Cogent Economics and Finance with eight and Financial Services Review with five. The remainder each carry four. This dispersion is diagnostic rather than incidental: household saving research is published across development economics, consumer studies, household economics, financial planning and general-interest outlets, with no disciplinary home journal. That absence helps explain the conceptual fragmentation the review documents, since authors writing for different readerships have limited incentive to converge on shared definitions.

Table 3. Leading publication outlets in the synthesis corpus (n = 324).

Publication outlet	Articles in corpus	Citations received
Sustainability	9	125
Cogent Economics and Finance	8	62
Financial Services Review	5	49
Journal of Family and Economic Issues	4	123
SERIEs	4	65
Review of Economics of the Household	4	63
Journal of Money, Credit and Banking	4	58
Journal of International Economics	4	42
PLoS ONE	4	36
SAGE Open	4	17

Citation impact is far more concentrated than output. The 324 articles have attracted 4,588 citations, averaging 14.2 per article, but the distribution is strongly skewed: the median article has been cited four times, and the ten articles listed in Table 4 account for over a third of all citations received. Hershfield et al. (2011) alone accounts for 579 citations.

Table 4. Ten most-cited articles in the synthesis corpus.

Study	Title	Outlet	Cited by
Hershfield et al. (2011)	Increasing saving behaviour through age-progressed renderings of the future self	Journal of Marketing Research	579

Study	Title	Outlet	Cited by
Bilbiie et al. (2012)	Endogenous entry, product variety, and business cycles	Journal of Political Economy	267
Chamon et al. (2013)	Income uncertainty and household savings in China	Journal of Development Economics	152
Achdou et al. (2022)	Income and wealth distribution in macroeconomics: A continuous-time approach	Review of Economic Studies	138
Giavazzi & McMahon (2012)	Policy uncertainty and household savings	Review of Economics and Statistics	114
Martin & Hill (2015)	Saving and well-being at the base of the pyramid	Journal of Service Research	99
Despard et al. (2020)	Why do households lack emergency savings? The role of financial capability	Journal of Family and Economic Issues	91
Feng et al. (2011)	Public pension and household saving: Evidence from urban China	Journal of Comparative Economics	84
Morgan & Trinh (2019)	Determinants and impacts of financial literacy in Cambodia and Viet Nam	Journal of Risk and Financial Management	78
Magendans et al. (2017)	Psychological determinants of financial buffer saving	Journal of Risk Research	71

Table 4 also reveals that the corpus contains two largely separate scholarly traditions. One is macroeconomic and structural, represented by Chamon et al. (2013) on income uncertainty and Chinese household saving, Giavazzi and McMahon (2012) on policy uncertainty, Feng et al. (2011) on public pensions and Ge et al. (2018) on demographic policy — work that models household saving as a response to aggregate conditions using large administrative or panel datasets. The other is behavioural and consumer-facing, represented by Hershfield et al. (2011) on future-self-identification, Martin and Hill (2015) on saving at the base of the pyramid, Despard et al. (2020) on financial capability and emergency savings, and Magendans et al. (2017) on risk tolerance and buffer saving. These traditions cite each other sparingly. The most-cited set thus reflects two coexisting literatures rather than a single cumulative conversation, which is a further argument for a framework capable of accommodating both.

4.4 Keyword Co-occurrence

Author-keyword co-occurrence, mapped in Figure 5, resolves into four principal clusters and several smaller satellites. The blue cluster encompasses financial literacy, saving behaviour, financial inclusion, financial education, financial knowledge, financial behaviour, financial planning, household finance, and self-control — the financial-capability core of the field and the cluster from which most of the synthesis corpus is drawn. The green cluster gathers household saving, saving, savings, consumption, investment, saving rate, precautionary saving, households, economic growth, China and Japan, corresponding to the macroeconomic and household-

economics tradition identified in Table 4. A smaller yellow cluster around savings, retirement and saving behaviour bridges the two.

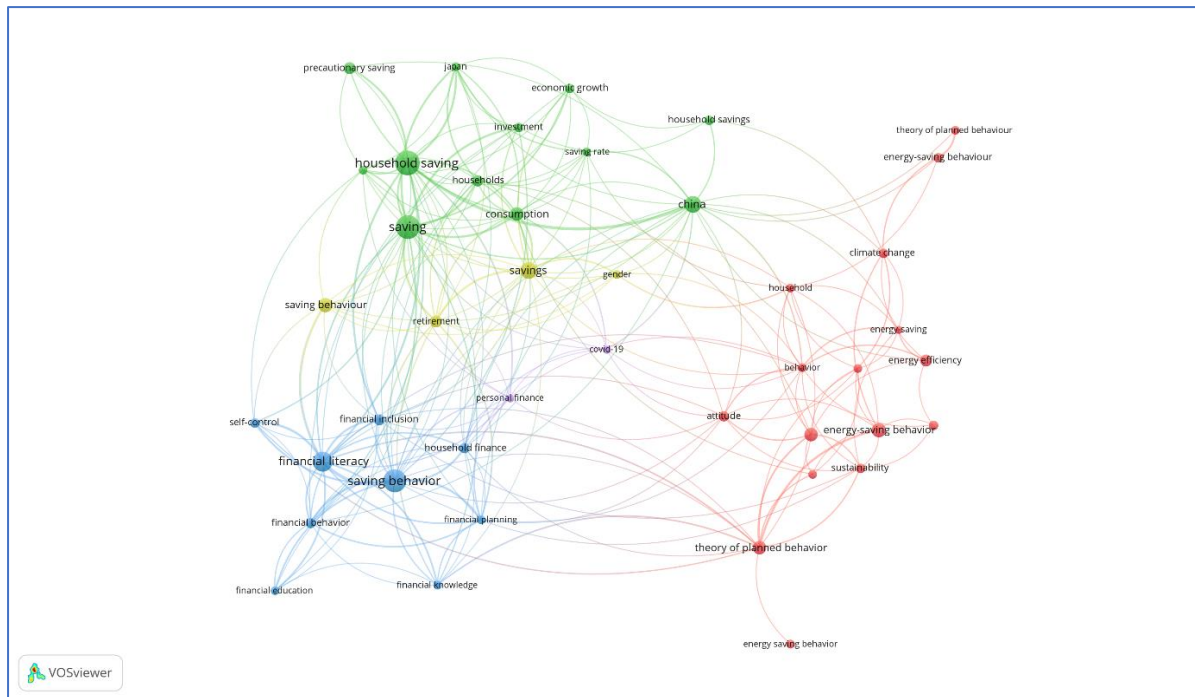


Figure 5. Author-keyword co-occurrence network (VOSviewer).

The red cluster is the important negative finding. It gathers data on energy-saving behaviour, energy efficiency, energy conservation, sustainability, climate change, pro-environmental behaviour, attitude, and the theory of planned behaviour, and is comparable in size to the household-finance cluster. Its prominence confirms quantitatively what the eligibility screen established case by case: 'saving behaviour' is a genuinely ambiguous term in the indexed literature, and a review that does not separate its two senses will report contaminated results. Notably, the theory of planned behaviour appears in both the red and the blue regions of the map, which is why its two applications must be distinguished carefully in Section 5.

Smaller satellites around personal finance, retirement, gender and COVID-19 mark where newer interest is accumulating. Their small size relative to the established clusters is informative — gender-differentiated saving and post-pandemic saving behaviour are active but not yet consolidated topics. What is conspicuously absent from the map is any substantial FinTech or digital-finance cluster, despite the volume of practitioner and policy attention the topic receives. Section 5.1.5 quantifies that gap.

5. Conceptual Framework: Antecedents, Decisions and Outcomes

This section answers RQ2. The Antecedents–Decisions–Outcomes framework of Paul and Benito (2017) organises the literature by asking three questions of every study: what conditions precede the behaviour, what the behavioural choice actually consists of, and what follows from it. Applied to saving research, the framework does specific work. It separates determinants from decisions, which empirical work routinely conflates by regressing the amount saved directly on a list of covariates without specifying which decision that amount reflects. It exposes decisions the field has under-modelled. Moreover, it forces outcomes to be stated explicitly rather than assumed. Thannikkottu et al. (2023) apply the same framework to humour advertising to comparable effect, converting a set of disconnected typology studies into an ordered account of appeal, response and consequence. Figure 6 presents the framework as instantiated for financial saving behaviour.

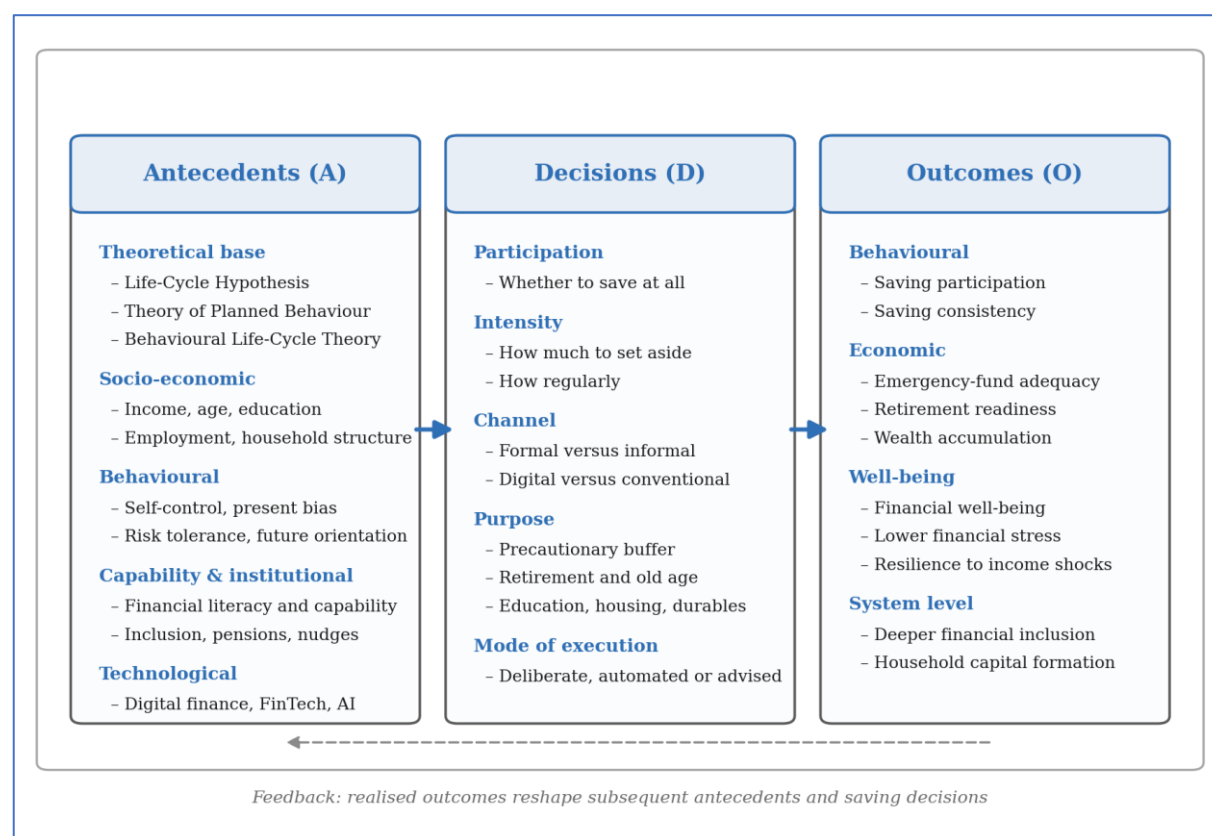


Figure 6. The ADO (Antecedents–Decisions–Outcomes) framework applied to financial saving behaviour.

5.1 Antecedents (A)

An antecedent is a condition that exists prior to the saving decision and helps explain its form. Coding the 324 synthesis articles produced five antecedent families: theoretical foundations, socio-economic and demographic conditions, behavioural and psychological dispositions, capability and institutional context, and technological infrastructure. Table 6 summarises the four empirical families with representative studies and their observed prevalence in the corpus.

5.1.1 Theoretical Antecedents

Three theories account for most of the field's explicit theorising, and each supplies a different account of what a saver is. Table 5 summarises them.

Life-Cycle Hypothesis. Modigliani and Brumberg (1954) modelled saving as intertemporal consumption smoothing: a household accumulates during its earning years and decumulates in retirement, so that saving is determined by age, current and expected income, and employment status. The hypothesis remains the reference point for macro-oriented work in the corpus. Feng et al. (2011) use it to interpret the effect of pension reform on urban Chinese household saving, and Ge et al. (2018) extend it to demographic policy, showing that changes in family structure shift saving through the life-cycle channel. Its recognised weakness is that observed saving systematically deviates from the smoothing prediction — households under-save relative to the model early in the life cycle and decumulate more slowly than the model implies in retirement (Deaton, 1992; Lusardi & Mitchell, 2014). Those deviations are what the remaining theories exist to explain.

Theory of Planned Behaviour. Ajzen (1991) treats behaviour as the product of intention, which is itself determined by attitude toward the behaviour, subjective norms and perceived behavioural control. Applied to saving, the theory predicts that a household saves when it evaluates saving positively, perceives social endorsement, and believes itself capable of executing the plan. The corpus most often applies it to young adults and students, where intention, rather than constraint, is plausibly the binding factor. One caution is necessary. As Figure 5 shows, the

theory of planned behaviour is the single most common theoretical framework in the energy-saving literature and an important one in household finance; the two applications must not be aggregated, and the co-occurrence map is misleading on this point unless the corpus is screened first.

Behavioural Life-Cycle Theory. Shefrin and Thaler (1988) modify the life-cycle model by introducing two psychological mechanisms: imperfect self-control, which drives a wedge between planned and executed saving, and mental accounting, which causes households to treat notionally identical funds differently according to the label attached to them. Because these mechanisms predict that identically situated households will save differently, the theory absorbs precisely the residual the life-cycle model leaves. It also has the most direct practical purchase of the three, since automatic transfers, commitment devices, matched-saving schemes and default enrolment all operate on the mechanisms it identifies. Liu et al. (2019) provide corpus evidence in this vein, showing that professional financial advice functions partly as an external substitute for self-control, and Alshebami and Aldhyani (2022) find that self-control moderates the relationship between financial literacy, social influence and saving among Saudi youth.

Table 5. Dominant theories applied in research on financial saving behaviour.

Theory	Key proponents	Core proposition	Application to saving behaviour
Life-Cycle Hypothesis	Modigliani & Brumberg (1954)	Households smooth consumption across the lifetime against expected lifetime resources	Explains saving as a function of age, income, employment status and retirement horizon; anchors the macro-oriented tradition in the corpus
Theory of Planned Behaviour	Ajzen (1991)	Behaviour follows intention, which is determined by attitude, subjective norms and perceived behavioural control	Explains saving intention and its translation into action, applied most often to young adults and students
Behavioural Life-Cycle Theory	Shefrin & Thaler (1988)	Imperfect self-control and mental accounting cause systematic departure from the life-cycle prediction	Explains why comparably situated households save differently; underpins automation, defaults and commitment devices

5.1.2 Socio-economic and Demographic Antecedents

Socio-economic conditions remain the most heavily studied antecedent family. Income and economic resources appear in 45 per cent of the synthesis corpus, and age or life-cycle stage in 35 per cent, making them the two most-examined constructs in the field. The consistent finding is that income raises the capacity to save without determining the propensity to do so — a result that recurs across settings and is the empirical foundation for everything the behavioural literature subsequently adds.

Household structure is examined in 20 per cent of the corpus and produces some of its most decisive results. Ge et al. (2018) attribute a substantial share of the Chinese household saving puzzle to demographic structural change, and Lugauer et al. (2019) show that the presence and number of dependent children systematically alters saving, with the effect running through anticipated education expenditure. Gender appears in 14 per cent, generally as a moderator rather than a main effect: women and men differ in saving goals, risk tolerance, and channel preference more than in aggregate saving rates. Education and human capital appear as an explicit construct in only five per cent, which is lower than one might expect and reflects that education is frequently absorbed into financial literacy measures rather than modelled separately.

5.1.3 Behavioural and Psychological Antecedents

This family contains the constructs invoked to explain why the socio-economic family under-predicts. Risk tolerance and uncertainty appear in 18 per cent of the corpus. Magendans et al. (2017) show that financial risk tolerance and regulatory focus jointly predict whether a household builds a financial buffer, distinguishing buffer saving from goal-directed saving as a behaviourally distinct activity. At the macro end of the same construct, Chamon et al. (2013) demonstrate that rising income uncertainty accounts for a substantial part of the increase in Chinese household saving, and Giavazzi and McMahon (2012) show that policy uncertainty alone raises saving — a striking result because it isolates uncertainty from any change in income.

Self-control and time preference appear in six per cent of the corpus, a low figure given the construct's theoretical centrality. Attitudes, norms and intention appear in 13 per cent. Herschfield et al. (2011) supply the corpus's most-cited behavioural contribution, showing experimentally that exposure to age-progressed images of one's own future self increases allocation to retirement saving — evidence that the psychological distance of the future saver, rather than any change in resources or information, moves the decision. That result is important beyond its specific intervention, because it demonstrates that saving responds to the framing of the future itself.

5.1.4 Capability and Institutional Antecedents

Financial literacy is the field's signature construct, appearing in 22 per cent of the synthesis corpus and dominating the blue cluster in Figure 5. The general finding is that financially literate households budget more systematically, evaluate products more effectively and accumulate more over time (Kaiser & Menkhoff, 2020; Lusardi & Mitchell, 2014). Morgan and Trinh (2019) confirm the pattern in Cambodia and Viet Nam, where literacy predicts both saving and the use of formal financial products.

The corpus also documents a limit to that finding. Literacy is knowledge; capability is knowledge converted into practice through budgeting, planning and execution (Atkinson & Messy, 2012; Xiao & O'Neill, 2018). Despard et al. (2020) show that households lacking emergency savings are not necessarily those lacking financial knowledge, but those lacking the capability infrastructure — an accessible account, a workable income margin, a mechanism for setting money aside — to act on it. The distinction explains the otherwise puzzling weakness of education-only interventions and points toward designs that combine instruction with structural support. Financial capability and inclusion nonetheless appear as explicit constructs in only 8% of the corpus, a striking underrepresentation relative to their explanatory importance.

Institutional and policy antecedents — pension architecture, social security provision, tax incentives, matched-saving schemes, default enrolment and nudge-based programme design — appear in 14 per cent. Feng et al. (2011) provide the clearest institutional result in the corpus: public pension provision substitutes for private saving, so that pension generosity and household saving move inversely. Culture, religion and social context appear in 13 per cent, and economic shocks and crises, including COVID-19, in 19 per cent. Guo et al. (2022) document pandemic-driven shifts in Chinese household financial behaviour, and Merlo et al. (2024) examine how family structure conditioned the formation of saving attitudes in post-pandemic Poland.

5.1.5 Technological Antecedents

Digital financial services, mobile money, FinTech applications and algorithmic advice appear in just 4 per cent of the synthesis corpus — fourteen articles. This is the review's most consequential quantitative finding, and it sits uncomfortably beside the volume of policy and industry attention the topic attracts. The absence of a FinTech cluster in Figure 5 is not an artefact of the mapping; the literature genuinely has not yet formed one.

What exists is recent and promising. Rahayu et al. (2024) distinguish digital financial literacy from general financial literacy and link it to saving behaviour and financial resilience. Kim et al. (2025) find that digital financial literacy mediates the relationship between financial literacy and saving among older adults, which matters because that population faces the sharpest adoption barrier. Mutya and Ilankadhir (2024) examine digital financial literacy among rural entrepreneurs and find that awareness of government regulation moderates its effect. The pattern across these studies is consistent: digital channels lower transaction costs, improve visibility of balances and goals, and enable automation, but the benefit accrues to those who already possess the digital

capability to use them, so the technology risks widening the gap it is often expected to close (Demirgüç-Kunt et al., 2022; Klapper et al., 2015; Morgan & Long, 2020).

The gap between what these fourteen studies establish and what would be needed to guide policy is wide. There is no substantial evidence in the corpus on algorithmic financial advice, open banking, digital assistants or the durability of digitally induced saving beyond short observation windows.

Table 6. Summarisation of antecedents of financial saving behaviour identified in the reviewed studies.

Antecedent family and construct	Characterisation in the reviewed literature	Share of corpus	Representative studies
Income and economic resources	Determines the capacity to save; consistently significant but insufficient on its own to explain observed variation in saving	45%	Chamon et al. (2013); Martin & Hill (2015); Despard et al. (2020)
Age and life-cycle stage	Positions the household on the accumulation–decumulation path; the central mechanism of the Life-Cycle Hypothesis	35%	Feng et al. (2011); Ge et al. (2018); Hershfield et al. (2011)
Household structure and dependants	Household size, marital status and the presence of dependent children shift both capacity and anticipated future expenditure	20%	Ge et al. (2018); Lugauer et al. (2019); Merlo et al. (2024)
Financial literacy and knowledge	Knowledge of financial concepts and products; the field's most-studied behavioural construct	22%	Morgan & Trinh (2019); Alshebami & Aldhyani (2022)
Risk tolerance and uncertainty	Perceived income and policy uncertainty raise precautionary saving; risk tolerance shapes buffer formation	18%	Magendans et al. (2017); Giavazzi & McMahon (2012); Chamon et al. (2013)
Economic shocks and crises	Pandemic, inflationary and recessionary episodes alter saving motives and their salience	19%	Guo et al. (2022); Merlo et al. (2024)
Institutions, policy and pension design	Pension provision, social security, tax incentives, defaults and matched-saving schemes; public provision partially substitutes for private saving	14%	Feng et al. (2011); Ge et al. (2018)
Gender	Examined mainly as a moderator of saving goals, risk tolerance and channel preference rather than as a main effect	14%	Alshebami & Aldhyani (2022)
Attitudes, norms and intention	The Theory of Planned Behaviour path from attitude, norms and perceived control to saving intention	13%	Magendans et al. (2017); Van et al. (2024)

Antecedent family and construct	Characterisation in the reviewed literature	Share of corpus	Representative studies
Culture, religion and social context	Norms governing transfers, permissible instruments and the appropriateness of formal saving; social influence and trust	13%	Alshebami & Aldhyani (2022); Merlo et al. (2024)
Financial capability and inclusion	Knowledge converted into practice through access, budgeting and execution; distinguished from literacy	8%	Despard et al. (2020); Morgan & Trinh (2019)
Self-control and time preference	Present bias and imperfect self-control drive a wedge between planned and executed saving; central to Behavioural Life-Cycle Theory	6%	Liu et al. (2019); Alshebami & Aldhyani (2022)
Education and human capital	Modelled separately only rarely; usually absorbed into financial literacy measures	5%	Morgan & Trinh (2019)
Digital financial services and FinTech	Mobile money, digital payment, automated saving tools and digital financial literacy; the corpus's smallest antecedent family	4%	Rahayu et al. (2024); Kim et al. (2025); Mutya & Ilankadhir (2024)

5.2 Decisions (D)

The decisions component asks what choice the antecedents actually shape. This is where the framework does its most corrective work, because most empirical studies in the corpus operationalise saving as a single continuous quantity — an amount, a rate, or a binary indicator — thereby collapsing several distinct decisions into a single measure. Reading the corpus with the decision structure in view separates five.

Participation. Whether a household saves at all is a discrete decision with its own determinants, and it is not simply the lower tail of the distribution of amounts. Despard et al. (2020) show that non-participation is driven by capability and access constraints rather than by preference, which means that a model estimating saving amounts on the saving population misses the households the policy question is usually about.

Intensity. How much to set aside, and how regularly, is the decision most studies actually measure. The literature increasingly distinguishes between level and consistency: regular small contributions yield different resilience outcomes than sporadic large ones, and only the latter is captured by an annual rate.

Channel. Where saving is held — formal or informal, digital or conventional — is a decision the inclusion and FinTech literatures address but which rarely appears in determinant models. Morgan and Trinh (2019) treat formal product use as a distinct outcome from saving itself, which is the correct separation: a household may save consistently in informal arrangements and register as a non-saver in formal statistics.

Purpose. Households save toward identifiable goals — a precautionary buffer, retirement, education, housing, durable purchases — and the goal changes the determinants of behaviour. Magendans et al. (2017) demonstrate this directly by showing that buffer saving responds to risk tolerance and regulatory focus in ways goal-directed saving does not. Aggregating across purposes averages out these differences.

Mode of execution. Whether the decision is made each period deliberately, automated once, or delegated to an adviser or algorithm is a genuinely new decision dimension created by digital financial infrastructure, and the corpus has barely begun to model it. Liu et al. (2019) provide the closest evidence, showing that professional advice partially substitutes for self-control. If automation and delegation function similarly, then the mode of

execution is not a peripheral implementation detail but a mechanism that changes which antecedents bind at all — a household that has automated its saving has largely removed self-control from the causal path.

5.3 Outcomes (O)

Outcomes are what the field takes saving to be for, and the corpus operates at four levels. Behavioural outcomes concern the saving act itself — participation, consistency, buffer accumulation — and are what most studies measure. Economic outcomes concern the financial position saving produces: emergency-fund adequacy, retirement readiness and wealth accumulation. Despard et al. (2020) treat emergency-fund adequacy as the dependent variable of interest, and the corpus's retirement literature treats readiness similarly.

Well-being outcomes have become increasingly prominent and represent the field's clearest conceptual advance in the review period. Saving is treated not as an end in itself but as a means to financial well-being, reduced financial stress, and resilience to income shocks (Brüggen et al., 2017; Netemeyer et al., 2018). Martin and Hill (2015) develop this argument at the base of the pyramid, showing that saving relates to subjective well-being in ways not captured by accumulated balances, and that the relationship holds at income levels where accumulation is minimal. This reframing matters in practice: an intervention that raises saving consistency without increasing the amount saved may still deliver most of the well-being benefit and would be scored as a failure under a purely economic outcome measure.

System-level outcomes concern the aggregate consequences of household saving — deeper financial inclusion, household capital formation, and the macroeconomic effects of aggregate saving on growth and investment. These appear chiefly in the macroeconomic tradition identified in Section 4.3.

Two observations follow from arranging the outcomes this way. Studies frequently claim well-being outcomes while measuring only behavioural ones, and the inferential distance between the two is treated as smaller than the evidence supports. And the framework surfaces a feedback path that the linear ADO structure does not by itself express: outcomes reshape antecedents. A household that accumulates an emergency fund and successfully absorbs a shock acquires both the perceived behavioural control and the financial margin that predict future saving. Figure 6 marks this loop explicitly. Almost nothing in the corpus estimates it, because doing so requires the longitudinal designs Section 6 identifies as missing.

6. Discussion and Suggestions

Read together, the bibliometric map and the ADO synthesis describe a field that has grown quickly, diversified in the constructs it studies, and remained unevenly developed in ways that are now measurable rather than merely suspected. This section states what the review implies and converts each implication into a research direction, answering RQ3.

6.1 What the Review Establishes

The field has genuinely moved beyond the economic account of saving. Behavioural, capability and institutional constructs are no longer supplementary to income and age but are examined alongside them in a substantial fraction of the corpus. That movement is real and is visible in both the keyword map and the coded antecedent families.

The movement is nevertheless uneven in a specific direction. The determinants receiving the most attention are those most easily measured in cross-sectional survey data — income at 45 per cent of the corpus, age at 35 per cent, household structure at 20 per cent, financial literacy at 22 per cent. The determinants that theory identifies as most mechanistically important receive the least: self-control and time preference at 6 per cent, financial capability and inclusion at 8 per cent, digital financial services at four per cent. The field studies, in short, what its dominant design makes convenient to study, and the resulting evidence base is shaped as much by method as by theory.

The most valuable recent insight in the literature is the separation of financial literacy from financial capability. Knowing how compound interest works and being positioned to act on that knowledge are different things, and the distinction resolves the field's most persistent empirical puzzle — the weak and inconsistent effect of

education-only interventions (Despard et al., 2020; Kaiser & Menkhoff, 2020; Xiao & O'Neill, 2018). The practical corollary is that financial education is a component of an effective intervention, not the intervention itself.

Two structural imbalances constrain what can currently be concluded. The evidence base is concentrated in high-income economies with mature financial infrastructure, and the coupling network in Figure 4 shows that research from low-income settings is not yet densely integrated into the field's shared reference base. And the technological literature, at fourteen articles, is not yet adequate to the changes it studies.

6.2 Theoretical Directions

Each of the three dominant theories explains one segment of the antecedent structure, and none spans it. The Life-Cycle Hypothesis addresses the resource and timing dimension, the Theory of Planned Behaviour addresses the intention dimension, and Behavioural Life-Cycle Theory addresses the self-regulation dimension. None accommodates capability, institutional design or digital infrastructure, which is why studies invoking these constructs typically do so atheoretically.

An integrated framework would treat resources as determining capacity, behavioural dispositions as determining propensity, capability and institutions as determining the conversion of propensity into action, and digital infrastructure as determining the cost and mode of that conversion. The ADO structure in Figure 6 is a first step toward such a framework, but it organises rather than explains. The next step is to specify and test the mediation and moderation paths it implies. Two are especially tractable: whether behavioural traits mediate the relationship between socio-economic position and saving outcomes, and whether financial capability moderates the effect of financial literacy — a hypothesis the Despard et al. (2020) findings support but do not formally test.

The decisions component in particular deserves theoretical attention. Treating saving as a scalar amount is a modelling convention rather than a theoretical commitment, and the five decisions distinguished in Section 5.2 plausibly have different determinants. A theory specifying which antecedents bind on which decision would be more useful than a further determinant of the amount saved.

6.3 Methodological Directions

The corpus is dominated by cross-sectional survey designs, which cannot observe the behaviour the field claims to study. Saving is by definition a repeated behaviour; its consistency is a distinct and possibly more consequential construct than its level, and the feedback loop in Figure 6 is inherently dynamic. None of these can be recovered from a single observation. Panel and longitudinal designs following households across life stages and economic cycles are the field's most pressing methodological need.

Causal identification is a second requirement. Hershfield et al. (2011) demonstrate the contribution of experimental work here by isolating a psychological mechanism that no observational design could disentangle from confounds. Field experiments and quasi-experimental evaluations of financial education programmes, default enrolment schemes, matched-saving arrangements and digital nudges would establish whether the interventions the field recommends actually produce the effects attributed to them.

Measurement harmonisation is a third. The review's central boundary problem — that 'saving behaviour' denotes two unrelated constructs in the indexed literature — is the extreme case of a general weakness. Within household finance, saving is variously measured as a self-reported rate, an account balance, a binary participation indicator, an intention score and a composite index, and these are treated as interchangeable in narrative comparison when they are not. A shared measurement protocol that distinguishes participation, intensity, consistency, and adequacy would enable accumulation across studies.

Finally, mixed-method designs would help where quantitative work is weakest. The reasons households give for not saving, the informal arrangements that formal statistics miss, and the lived experience of digital financial exclusion are all poorly served by survey instruments designed around formal-sector assumptions.

6.4 Contextual Directions

The geographic concentration documented in Section 4.2 has a consequence beyond representativeness. Theories developed in settings with near-universal account ownership, established pension systems and formal credit markets embed assumptions that do not hold elsewhere. Where informal saving arrangements are the norm, where income is irregular, or where formal institutions are weak, the antecedent structure may differ in kind rather than degree.

Comparative cross-country research designed to test whether determinant structures are invariant across institutional contexts would be more valuable than further single-country replication. Under-represented groups warrant equal attention: informal-sector workers with irregular incomes, rural households, older adults facing barriers to digital adoption, young adults entering the financial system, and women in settings where financial decision-making is constrained. The corpus addresses gender in 14 per cent of studies but generally as a control or moderator rather than as a subject of dedicated design.

Cultural and religious context, at 13 per cent of the corpus, is similarly under-developed relative to its likely importance. Norms governing intergenerational transfers, permissible financial instruments and the appropriateness of formal saving vary substantially and are largely absent from the field's dominant models.

6.5 Technological Directions

Fourteen articles are not a body of literature on digital financial transformation; they are the beginning of one. The most urgent questions are unaddressed. Whether digitally induced saving persists once the novelty of an application has worn off is unknown, as no study in the corpus observes a sufficiently long window. Whether automation genuinely substitutes for self-control, as the Liu et al. (2019) advice findings suggest by analogy, or merely defers the decision to a moment when the household disables the automation, is untested. Whether algorithmic financial advice improves saving outcomes, and for whom, is unexamined.

The distributional question is the most consequential. Digital financial services are frequently promoted as instruments of inclusion, but the corpus evidence suggests their benefits accrue disproportionately to households already possessing digital capability (Kim et al., 2025; Mutya & Ilankadhir, 2024; Rahayu et al., 2024). If that pattern holds at scale, digital transformation will widen rather than narrow saving inequality, and the policy implication reverses. Establishing which of these is true, in which settings, is the field's most important open empirical question.

Digital financial literacy also needs to be established as a distinct construct from financial literacy, rather than assumed to be one. Rahayu et al. (2024) and Kim et al. (2025) treat it as separate and find that it performs independent work, but the evidence base for that separation currently consists of three studies.

6.6 Implications for Practice and Policy

For policymakers, the literacy–capability distinction is the most actionable result the review produces. Financial education delivered without accompanying structural support — accessible accounts, default enrolment, automatic transfer facilities, a workable income margin — should not be expected to change saving behaviour on its own, and the evidence base for education-only programmes is correspondingly weak (Kaiser & Menkhoff, 2020).

For financial institutions, the decision structure in Section 5.2 suggests that product design should address participation and consistency as distinct problems rather than treating both as functions of the amount saved. The behavioural literature indicates that mechanisms that reduce the frequency of the saving decision — automation, defaults, commitment features — operate directly on the self-control constraint, which no amount of information provision does.

For educators, Hershfield et al. (2011) point to an underused approach: interventions that reduce the psychological distance of the future saver, rather than increasing information about financial products, act on a mechanism that appears to be widely applicable.

Across all three groups, the corpus's evidence on digital financial services counsels care. Channels that lower costs for capable users can simultaneously raise effective exclusion for others, and inclusion, measured by account ownership, does not establish inclusion in the sense that matters for saving.

7. Conclusion and Future Scope of Study

This review examined research on financial saving behaviour published between 2010 and 2026, mapping 1,170 Scopus-indexed articles. A bibliometric analysis and synthesis of 324 of them were conducted through the Antecedents–Decisions–Outcomes framework of Paul and Benito (2017), with reporting following the PRISMA 2020 protocol (Page et al., 2021). The framework-based approach follows the precedent used by Thannikkottu et al. (2023) in a different behavioural domain, where ADO proved capable of converting a fragmented literature on determinants into an ordered structure.

Three findings summarise the result. The field has grown rapidly and has genuinely broadened beyond its economic origins, with behavioural, capability and institutional constructs now examined alongside income and age. Its attention is nonetheless allocated by methodological convenience rather than theoretical importance, so that readily surveyed determinants are studied heavily, while self-control, financial capability and digital financial services — constructs that theory identifies as central — are studied at rates of 6, 8 and 4 per cent, respectively. And the literature's most useful recent contribution is conceptual rather than empirical: the separation of financial literacy from financial capability, which resolves the long-standing puzzle of why knowledge-based interventions underperform.

The review contributes to the field in three ways. It supplies a transparent bibliometric account of the field's structure, including the finding — quantified here for the first time to the authors' knowledge — that roughly two-fifths of the open-access literature returned by a standard saving-behaviour query addresses energy and environmental conservation rather than household finance, a contamination that would distort any unscreened bibliometric review of this topic. It applies the ADO framework to household saving, distinguishing five antecedent families, five saving decisions, and four outcome levels, and, in doing so, identifies decisions the field has under-modelled. And it derives a research agenda organised along theoretical, methodological, contextual and technological lines.

Several limitations bound these conclusions. The corpus is drawn from a single database; Scopus coverage is broad but not exhaustive, and Web of Science, EconLit and Google Scholar would each return partially different sets. Restriction to English-language publications excludes work published in the languages of several countries where saving behaviour is actively studied. The synthesis corpus is restricted to open-access articles, which was necessary for full-text assessment but introduces a selection bias whose direction is not obvious: open-access publication correlates with funding, region and disciplinary norms in ways that may systematically affect which studies are represented. Eligibility coding was framework-guided and reproducible in procedure, but the boundary between a peripheral and a substantive treatment of saving behaviour involves judgement. Moreover, the 2026 data are partial, so trend statements for that year should not be interpreted as observed decline.

Future work could extend the review by combining multiple databases and removing the open-access restriction, by conducting co-citation and co-authorship analyses that this review did not undertake, and by revisiting the technological antecedent family once it has accumulated enough studies to support synthesis. At present growth rates, that point may arrive within a few years — which is itself an argument for establishing the measurement and design standards now, before the literature consolidates around whatever the first well-cited studies do.

1. 8. References

2. Achdou, Y., Han, J., Lasry, J.-M., Lions, P.-L., & Moll, B. (2022). Income and wealth distribution in macroeconomics: A continuous-time approach. *Review of Economic Studies*, 89(1), 45–86. <https://doi.org/10.1093/restud/rdab002>
3. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

4. Alshebami, A. S., & Aldhyani, T. H. H. (2022). The interplay of social influence, financial literacy, and saving behaviour among Saudi youth and the moderating effect of self-control. *Sustainability*, 14(14), 8780. <https://doi.org/10.3390/su14148780>
5. Atkinson, A., & Messy, F.-A. (2012). Measuring financial literacy: Results of the OECD / International Network on Financial Education (INFE) pilot study (OECD Working Papers on Finance, Insurance and Private Pensions No. 15). OECD Publishing. <https://doi.org/10.1787/5k9csfs90fr4-en>
6. Bapat, G. S., Chitnis, R. M., & Subbarao, P. S. (2022). The state of “Innovation” and “Entrepreneurship” in India-A Post Pandemic Bibliometric Analysis. *Journal of Positive School Psychology*, 2022, 6820-6826.
7. Bearman, M., & Dawson, P. (2013). Qualitative synthesis and systematic review in health professions education. *Medical Education*, 47(3), 252–260. <https://doi.org/10.1111/medu.12092>
8. Bilbiie, F. O., Ghironi, F., & Melitz, M. J. (2012). Endogenous entry, product variety, and business cycles. *Journal of Political Economy*, 120(2), 304–345. <https://doi.org/10.1086/665825>
9. Brüggén, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial well-being: A conceptualization and research agenda. *Journal of Business Research*, 79, 228–237. <https://doi.org/10.1016/j.jbusres.2017.03.013>
10. Chamon, M., Liu, K., & Prasad, E. (2013). Income uncertainty and household savings in China. *Journal of Development Economics*, 105, 164–177. <https://doi.org/10.1016/j.jdeveco.2013.07.014>
11. Deaton, A. (1992). *Understanding consumption*. Oxford University Press.
12. Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank Publications.
13. Despard, M. R., Friedline, T., & Martin-West, S. (2020). Why do households lack emergency savings? The role of financial capability. *Journal of Family and Economic Issues*, 41(3), 542–557. <https://doi.org/10.1007/s10834-020-09679-8>
14. Dua, G. G., Thannikkottu, D. T., & Desai, A. K. (2022). Alternative Fuel Vehicles (AFV): An Integrative Review. *Towards Excellence*, 1019–1037. <https://doi.org/10.37867/TE140391>
15. 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>
16. Feng, J., He, L., & Sato, H. (2011). Public pension and household saving: Evidence from urban China. *Journal of Comparative Economics*, 39(4), 470–485. <https://doi.org/10.1016/j.jce.2011.01.002>
17. Friedman, M. (1957). *A theory of the consumption function*. Princeton University Press.
18. Ge, S., Yang, D. T., & Zhang, J. (2018). Population policies, demographic structural changes, and the Chinese household saving puzzle. *European Economic Review*, 101, 181–209. <https://doi.org/10.1016/j.euroecorev.2017.09.008>
19. Giavazzi, F., & McMahon, M. (2012). Policy uncertainty and household savings. *Review of Economics and Statistics*, 94(2), 517–531. https://doi.org/10.1162/REST_a_00158
20. Guo, H., Zhang, Y., Peng, Y., Luo, T., & Wang, H. (2022). Does COVID-19 affect household financial behaviors? Fresh evidence from China. *SAGE Open*, 12(3). <https://doi.org/10.1177/21582440221119481>
21. Hershfield, H. E., Goldstein, D. G., Sharpe, W. F., Fox, J., Yeykelis, L., Carstensen, L. L., & Bailenson, J. N. (2011). Increasing saving behavior through age-progressed renderings of the future self. *Journal of Marketing Research*, 48(SPL), S23–S37. <https://doi.org/10.1509/jmkr.48.SPL.S23>
22. Kaiser, T., & Menkhoff, L. (2020). Financial education in schools: A meta-analysis of experimental studies. *Economics of Education Review*, 78, 101930. <https://doi.org/10.1016/j.econedurev.2019.101930>

23. Kim, O. V. T., Thuy, T. T. N., Khanh, L. D., Thanh, M. P. T., Quynh, N. T., & Minh, T. N. T. (2025). The impact of financial literacy on saving behavior of the elderly people: The mediating role of digital financial literacy. *Humanities and Social Sciences Letters*, 13(1), 45–55. <https://doi.org/10.18488/73.v13i1.3974>
24. Klapper, L., Lusardi, A., & Van Oudheusden, P. (2015). Financial literacy around the world: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey. Standard & Poor's Ratings Services.
25. Lim, W. M., Yap, S. F., & Makkar, M. (2021). Home sharing in marketing and tourism at a tipping point: What do we know, how do we know, and where should we be heading? *Journal of Business Research*, 122, 534–566. <https://doi.org/10.1016/j.jbusres.2020.08.051>
26. Liu, F., Yilmazer, T., Loibl, C., & Montalto, C. (2019). Professional financial advice, self-control and saving behavior. *International Journal of Consumer Studies*, 43(1), 23–34. <https://doi.org/10.1111/ijcs.12480>
27. Lugauer, S., Ni, J., & Yin, Z. (2019). Chinese household saving and dependent children: Theory and evidence. *China Economic Review*, 57, 101091. <https://doi.org/10.1016/j.chieco.2017.08.005>
28. Lusardi, A., Michaud, P.-C., & Mitchell, O. S. (2017). Optimal financial knowledge and wealth inequality. *Journal of Political Economy*, 125(2), 431–477. <https://doi.org/10.1086/690950>
29. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
30. Magendans, J., Gutteling, J. M., & Zebel, S. (2017). Psychological determinants of financial buffer saving: The influence of financial risk tolerance and regulatory focus. *Journal of Risk Research*, 20(8), 1076–1093. <https://doi.org/10.1080/13669877.2016.1147491>
31. Martin, K. D., & Hill, R. P. (2015). Saving and well-being at the base of the pyramid: Implications for transformative financial services delivery. *Journal of Service Research*, 18(3), 405–421. <https://doi.org/10.1177/1094670514563496>
32. Merlo, P., Michalak, J., & Andruszkiewicz, K. (2024). Model of family and the propensity to build sustainable savings attitudes in the post-COVID world: A case study of Poland. *Sustainability*, 16(8), 3288. <https://doi.org/10.3390/su16083288>
33. Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. In K. K. Kurihara (Ed.), *Post-Keynesian economics* (pp. 388–436). Rutgers University Press.
34. Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics*, 68, 101197. <https://doi.org/10.1016/j.asieco.2020.101197>
35. Morgan, P. J., & Trinh, L. Q. (2019). Determinants and impacts of financial literacy in Cambodia and Viet Nam. *Journal of Risk and Financial Management*, 12(1), 19. <https://doi.org/10.3390/jrfm12010019>
36. Mutya, T., & Ilankadhir, M. (2024). Does digital financial literacy matter for current and future saving behavior among rural SME entrepreneurs? Government regulations awareness as a moderator. *Theoretical and Practical Research in the Economic Fields*, 15(4), 939–951. [https://doi.org/10.14505/tpref.v15.4\(32\).12](https://doi.org/10.14505/tpref.v15.4(32).12)
37. Netemeyer, R. G., Warmath, D., Fernandes, D., & Lynch, J. G., Jr. (2018). How am I doing? Perceived financial well-being, its potential antecedents, and its relation to overall well-being. *Journal of Consumer Research*, 45(1), 68–89. <https://doi.org/10.1093/jcr/ucx109>
38. OECD. (2020). *OECD/INFE 2020 international survey of adult financial literacy*. OECD Publishing.
39. OECD. (2023). *OECD/INFE 2023 international survey of adult financial literacy*. OECD Publishing. <https://doi.org/10.1787/56003a32-en>

40. Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
41. Paul, J., & Benito, G. R. G. (2017). A review of research on outward foreign direct investment from emerging countries, including China: What do we know, how do we know and where should we be heading? *Asia Pacific Business Review*, 24(1), 90–115. <https://doi.org/10.1080/13602381.2017.1357316>
42. Rahayu, S. M., Worokinasih, S., Damayanti, C. R., Normawati, R. A., Rachmatika, A. G., & Aprilian, Y. A. (2024). The road to financial resilience: Testing digital financial literacy and saving behavior. *Finance: Theory and Practice*, 28(3), 218–230. <https://doi.org/10.26794/2587-5671-2024-28-3-218-230>
43. Shefrin, H. M., & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry*, 26(4), 609–643. <https://doi.org/10.1111/j.1465-7295.1988.tb01520.x>
44. Thannikkottu, D., Dua, G., & Desai, A. K. (2023). A systematic literature review on humour advertising: The ADO model approach. *SDMIMD Journal of Management*, 14(2), 1–16. <https://doi.org/10.18311/sdmimd/2023/32653>
45. Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222. <https://doi.org/10.1111/1467-8551.00375>
46. Van, P. T. T., Ngo, T. N. A., Son, V. T., & Le, T. T. (2024). An empirical investigation on determinants of saving intention towards saving behavior of young people in the post-COVID-19 era. *Risk Governance and Control: Financial Markets and Institutions*, 14(2), 77–87. <https://doi.org/10.22495/rgcv14i2p8>
47. Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
48. World Bank. (2022). Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>
49. Xiao, J. J., & O'Neill, B. (2018). Consumer financial education and financial capability. *International Journal of Consumer Studies*, 42(1), 19–28. <https://doi.org/10.1111/ijcs.12385>
50. Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, 35(5), 805–817. <https://doi.org/10.1108/IJBM-01-2016-0009>