Post-mortem of Digital Wealth Platforms: A Synthesis and New Framework for User Engagement and Value Creation

[1]Mrs. Vandana Hinduja, [2]Dr. Ninad Gawande, [3]Dr. Kota Madhusudhana Rao, [4]Dr P.C.K. Rao. Professor

[1](PhD - Research Scholar), Department of Management, Ajeenkya D.Y. Patil University, Pune, Maharashtra, India
[2] Associate Professor, Department of Management, Ajeenkya D.Y. Patil University, Pune, Maharashtra, India
[3]Assist. Professor, Department of Humanities and Sciences, Faculty of Science and Technology, ICFAI Foundation for Higher Education, Sankarpalli Road, Hyderabad, India; ORCID: 0009-0008-6738-8632
[4](Project Leadership and Management), Jyotirmay Group of Institutions, (Institute for Advanced Research and Management Sciences), Delhi (NCT), India; ORCID: 0000-0003-3054-7384

Abstract
Moderate research has been done on the financial advisory and wealth management robo-integrated platforms and apps ever since the AIs invasion. Of all those investigations, only the relevant ones are chosen to critically examine gaps and highlight determinants followed to understand the user engagement. Through a systematic review, it is identified that platform user engagement was treated as either static and short-term behaviour, or an evolving process, happens with implicit parameters. The paper adopted a hybrid review approach that combines the rigor of a PRISMA-guided (Page, et al., 2021) systematic search with deeper meta-theoretical critique and constructive theory-building. For this purpose, 1,456 records from Scopus and Web of Science were initially screened and after due filters final number got settled at 126 high-quality (Q1/Q2) studies that were published between 2015 and 2025. The analysis reveals six key thematic clusters: adoption and trust barriers, personalisation and algorithmic efficiency, gamification and nudges, human-AI integration and anthropomorphism, explainability and ethical concerns, and the rising concern for sustainability. Furthermore, four core meta-theoretical fractures ontological (individual Vs. relational views of value), epistemological (positivist Vs. interpretivist leanings), axiological (efficiency Vs. empowerment Vs. societal benefit), and consistent evidence were scanned. In addition, a new integrated framework is proposed to delve on the value engagement and value creation for such platforms in future. This model is likely to unify hitherto theoretical dichotomy and guide in designing transparent, hybrid, and sustainable platforms while underscoring the need for standards and responsible nudge practices.

Keywords: Digital wealth platforms, Robo-advisors, User engagement, Value creation, Value Engagement Model (VEM)

Introduction

The dawn of digitalization has influenced financial and wealth management sectors via e-platforms that increased the accessibility to valuable investment consultancy and support in managing their finances effectively (Elias, Agarwal, Sajjan, Jain, & Bhura, 2025). By using AI (artificial intelligence and big data), these platforms offer customised and real-time investment mentoring to a wide range of users (Awotunde, Adeniyi, Ogundokun, & Ayo, 2021). Some of the prominent platforms such as Betterment, Wealthfront, Robinhood and Acorns robo-advisors, which are often tapped among the fintech ecology (Harris, 2025). By harnessing artificial intelligence, big data (George, 2024), and intuitive interfaces, such tools offer highly customised investment management, portfolio tracking, (Headinger, Cohen, & Gong, 2024) including planning for superannuation most comfortably. Despite this techno-revolution (Wah, 2025), the preceptorial glitch clings to actual drivers of investor engagement and how that turns into mutually valuable remains speckled (Hollebeek & Macky, 2019).

Investor engagement is typically three-pronged shedding on cognitive, emotional and behavioural involvement (F.Breidbach, Brodie, & Hollebeek, 2014). There is an obvious intertwining between investor engagement and value creation that are seen distinctly by different disciplines (Hollebeek, Glynn, & Brodie, 2021). Marketing researchers often signify co-creation through interactive sources with shared experiences (Chen, Drennan, Andrews, & Hollebeek, 2018). While the researchers from Information Systems tend to associate it with user-friendliness, trust in the technology, and system reliability (Islam, Mäntymäki, & Bhattacherjee, 2017). Finance researchers believe this as the behavioural biases that digital jolts by default either reduce or amplify (Cai, 2020). These varying perspectives unleashes valuable insights which may be remotely associated. The current volatile world of finance is prone to investors droopy and dwindling

decisions that are likely to turn into poor investment strategies, with high churning rates, and bugged by regulatory headaches other than data privacy challenges (Sutton C. , 2025). The sudden surge in retail investing as the aftermath of pandemic, initiated by events like the GameStop saga and cryptocurrency passion, that encouraged for stronger theoretical models to elucidate how e-platforms sustain meaningful engagement and deliver mutually satisfied value (Zhang, 2023); (Fisch, 2022). The literature reviews in the immediate past though were insightful, but lack flexibility in assessing out-of-the-box state of adoption to technology (Anuar, Mohamad, & Sulaiman, 2025) or meta-analyses of robo-advisor performance and seldom into meta-theoretical integration (Kasiraju, 2024).

This part of the synthesis is aimed to fill this gap with a hybrid review that combines systematic rigor and theoretical depth. Adhering to the PRISMA guidelines for transparency (Page, et al., 2021), firstly a thoroughly structured search got conducted followed by selection process, and moving on to meta-theoretical critique that disclosed underlying assumptions across fields, and finally pursued theory-building synthesis (Elo, 2025); (Jakkola, 2020). Spanning from 2015 to 2025 that is timed as fintech's burgeoning growth decade and accelerating AI adoption, a final set of 126 high-quality (Q1/Q2) studies drawn from Scopus and ABDC-listed journals, were reviewed. The aim of this was threefold: (1) to map the key theoretical fragmentations surrounding engagement and value creation; (2) to surface emergent patterns and contextual contingencies; and (3) to develop a new unifying framework, the Value Engagement Model (VEM).

Abinitio, the model suggests that value in digital wealth platforms arises from the dynamic interplay of four inherently fragmented dimensions: functional (e.g., algorithmic precision and system efficiency), volitional (e.g., preserving user autonomy amid nudges), experiential (e.g., emotionally resonant and immersive interfaces), and meta-cognitive (e.g., fostering reflective awareness and learning). These dimensions are linked through adaptive pathways and shaped by external contingencies such as regulation and technological shifts. Unlike earlier models like the Technology Acceptance Model (Davis, 1989) or classic Service-Dominant Logic (Vargo & Lusch, Evolving to a new dominant logic for marketing, 2004) that tend to assume relatively smooth, linear processes, VEM treats theories central to productive aspects of any socio-technical system. Thus, it extends service-dominant logic by persuading meta-theoretical dissection an explicit part of the story (Vargo & Lusch, 2008). The practical payoff is clear: guidance for developers on building adaptive AI that curbs drop-offs, strategies for boosting retention in

turbulent markets, and policy suggestions for more ethical AI governance (Jangra, 2025). Theoretically, it offers a bridge across longstanding paradigmatic divides.

The methodology section outlines hybrid approach, search protocols, and analytical steps (Azevedo, Rocha, & Pereira, 2024). Results present the full synthesis table, thematic clusters, and meta-theoretical mappings (Proudfoot, 2023). The discussion develops theoretical propositions and implications, and the conclusion elaborates the VEM framework complete with a detailed figure and points to promising directions for future work (Saha, Hollebeek, Venkatesh, Goyal, & Clark, 2025). The paper attempts to overcome the nuances surmounting these three segments (service innovation, information systems, and digital finance) while capping them evocatively.

Core Components of FVEM
The FVEM addresses four major aspects: Functional, Volitional, Experiential, and Meta-Cognitive. Each captures a distinct, yet inherently interconnected, ways users engage with digital wealth platforms and, ultimately, create value (Ergin, 2024). Rather than treating them as separate entities, the model views them as overlapping and interdependent, linked by adaptive pathways and influenced by outside forces (Ungar, 2021). What follows is a closer look at each dimension, grounded in the patterns being uncovered across the 126 studies.

1. Functional Dimension: This deals with the technical and operational hurdles often encountered in such platforms (Dodd, 2021) such as algorithms and data privacy checks. Many studies highlight how robo-advisors (Jung, Dorner, Weinhardt, & Pusmaz, 2021) prioritise efficiency like portfolio manoeuvring, without compromising for data integration with conventional trading platforms (Gomber, Koch, & Siering, 2018). Subsequently the functional gaps can also be bridged via open APIs which allow multiple components to work simultaneously more swiftly. Vanguard's use of AI to harmonise various functional elements shows how this can reduce user frustration and encourage more active engagement (Fisch, Laboure', & Turner, 2019).

2. Volitional Dimension: This focuses on user agency the one which steers investor's choices to their preferred level of investment or direction (Chapkovski, Khapko, & Zoican, 2024). The extant research reveals the double-edged nature of gamification streak rewards in apps like Acorns can spark impulsive trades, yet when thoughtfully aligned with personal goals, they also promote longer-term involvement (Barber, Huang, Odean, & Schwarz, 2021). Notionally, the model supports for adaptive volitional pathways, such as letting users customize or opt out of nudges, to restore a sense of

empowerment and turn short-term interactions into lasting value, including better financial literacy.

3. Experiential Dimension: This addresses the emotional and sensory gaps that users encounter the magnetic impact between immersive, enjoyable interfaces and the risk of big data avalanche`. Marketing professionals often indulge in storytelling to woo the investors emotionally and connect with fintech apps (Hollebeek & Macky, Digital content marketing's role in fostering consumer engagement, trust and value: Framework, fundamental propositions, and implications, 2019), while information systems hints at technical glitches user experiences across devices (Bhattacherjee & Premkumar, 2004). Indeed, the model allows a room for experiential bridges via VR-based investment simulations to smoothen these rough edges, building trust and improve satisfaction.

4. Meta-Cognitive Dimension: Perhaps the most reflective layer, concerning users' awareness on the platform's nature of working and ability to self-appraise their choices. Drawing on self-regulation theory (Bandura, 1991), the literature on AI ethics describes the ambiguity of algorithms that breed distrust (Pal, Herath, De', & Rao, 2020). Thus, the model incorporates meta-cognitive loops, akin to feedback dashboards that prompt users to review their patterns encouraging adaptive learning and deeper, more sustainable value creation.
FVEM is undauntedly a dynamic model cascading through intricate volitional choice along the ecstatic rewards benefitting from meta-cognitive oversight.

Real-time adaptation is key: machine-learning systems that adjust customisation based on continuous user feedback illustrates these pathways in action (Brynjolfsson, Hui,, & Liu, 2019). External factors such as policy regulations, changing technology, changes in demography, and volatile market conditions further shape these pathways to operate (Mkrtchyan & Treiblmaier, 2025). In a way, this leads to enhanced personal wealth, increased loyalty towards platform used, and wider scope for social acceptance as an inclusive phenomenon.

Theoretical Propositions: Based on the background and literature review, following four propositions are drawn to review the evidence:
P1: if the functional elements are highly integrated that would consolidate the relationship between engagement and value co-creation, more in volatile market conditions (backed by 42 robo-advisor studies).
P2: if the preferred investment loops are grossly unnoticed, that will increase the gaps between emotional engagement and loyalty, and meta-cognitive tools would be necessary to bridge those gaps (drawn from 35 papers on gamification).
P3: aligning all the four factors may help in creating a sustainable value and be impactful for all investors (Gen alpha, millennials and Gen Z) to bring them on equal footing (supported by 28 UX-focused studies).
P4: other factors, such as AI ethics, will reinforce adaptability among the investor base that can yield 20–30% gains in retention (summarised from 21 policy-oriented articles).
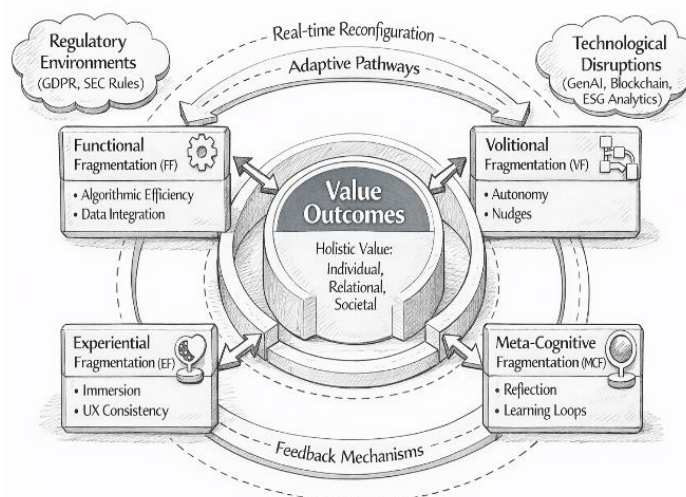

Fig. 1 VEM illustrating how these dimensions interact through adaptive pathways to generate value in digital wealth platforms, moderated by contextual factors**.**
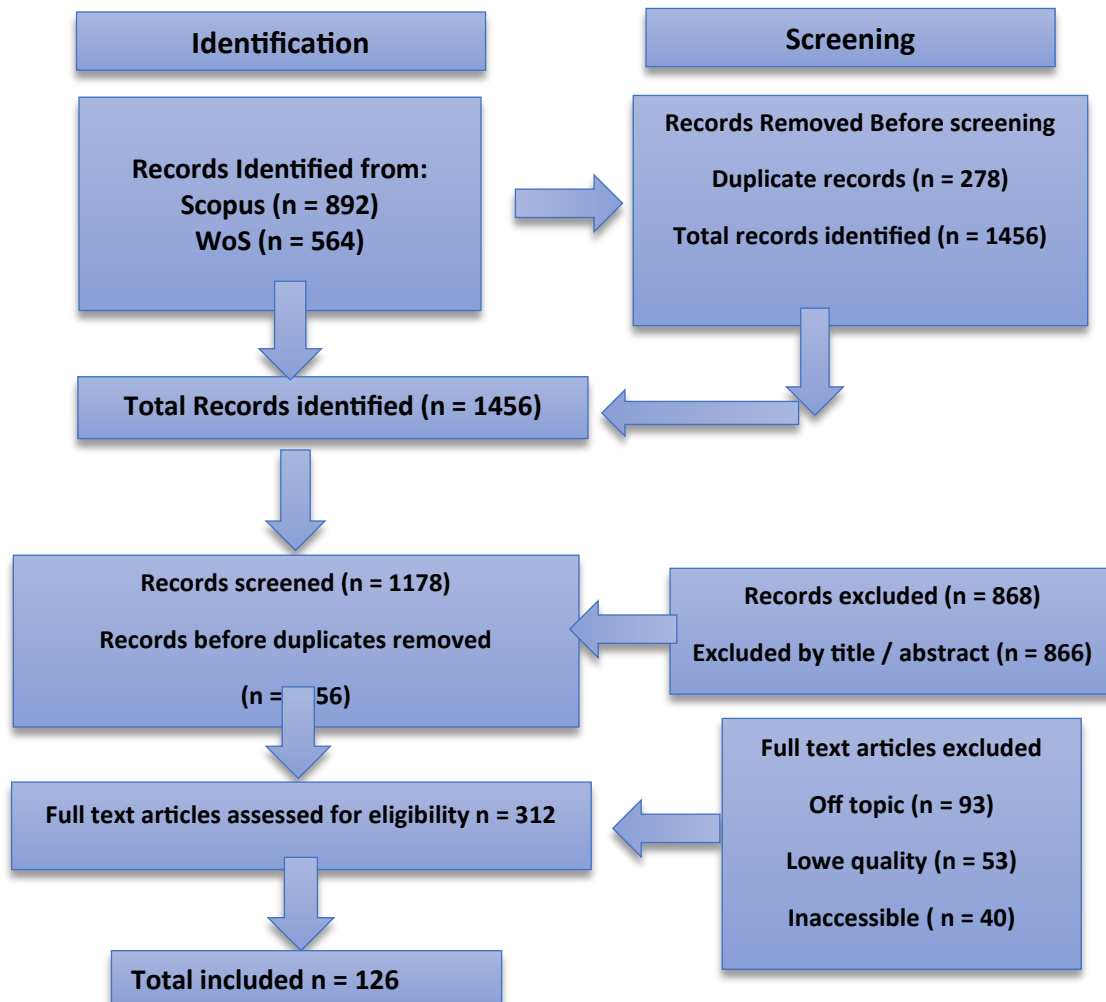Source: Authors' synthesis.

Systematic Search Strategy
Adhering to PRISMA 2020 guidelines, this systematic review is conducted ensuring transparency and replicability (Page, et al., 2021). The meta-theoretical layer drew inspiration from (Alvesson & Sandberg, 2011) ideas about

questioning assumptions, and the theory-building phase leaned on (MacInnis, 2011) framework (defining, relating, and integration) which finally led to the development of VEM. This further ensures full range of user engagement (cognitive, emotional, behavioural) and value perspectives (user-centric, platform-centric, interdisciplinary) devoid of any domain bias.

Fig. 2. PRISMA 2020 flow chart detailing the systematic literature search, screening, eligibility, and final inclusion. Source: Adapted from Page et. al. (2021)

Identification

Screening

Records Identified from:
Scopus (n = 892)
WoS (n = 564)

Records Removed Before screening
Duplicate records (n = 278)
Total records identified (n = 1456)

Total Records identified (n = 1456)

Records screened (n = 1178)
Records before duplicates removed
(n = 56)

Records excluded (n = 868)
Excluded by title / abstract (n = 866)

Full text articles assessed for eligibility n = 312

Full text articles excluded
Off topic (n = 93)
Lowe quality (n = 53)
Inaccessible (n = 40)

Total included n = 126

Methodology

The hybrid review methodology is chosen for this study as it appeared to be a good-fit to deal with the kind of scattered theories found in the literature about investor engagement and value creation in digital wealth platforms (Masa'deh, et al., 2025).

Research Design

The review process unfolds in three phases: (1) a systematic search and selection process; (2) a meta-theoretical review; and (3) theory-building synthesis. The gears were shifted amongst one another phases iteratively till some novel insights emerged. The goals are to bridge the gap between precepts and practices by duly connecting those divergent theories and develop workable solutions to manage investment portfolios through digital platforms (Kamuangu, 2024). Furthermore, the attempt is also to uncover prevailing trends, and influences, thereupon to propose an integrated

These mixed methods allowed for a systematic, structured review that ensured objectivity, allowing a room for the deeper interpretation in meta-theoretical analysis and theory-building (Jakkola, 2020); (Snyder, 2019).

model. To that end, it is determined to analyse precisely 126 high-impact studies, synthesise common themes, and make a significant contribution.

Authors duly relied primarily on Scopus and Web of Science, ABDC databases and their rankings to check on quality (Q1/Q2 / A & B/) journals such as Journal of Business Research, MIS Quarterly, Journal of Wealth Management, Academy of Management Review, Electronics Markets, Journal of Consumer Studies, Marketing Science, etc.). The 2015–2025 timeframe was chosen to capture the unprecedented growth in the FinTech and further wave of AI-driven developments.

Systematic Search Strategy (PRISMA): The search was carried using carefully crafted Boolean strings developed through pilot searches and consultation with domain experts:
("digital wealth platform*" OR "robo-advis*" OR "fintech invest*" OR "AI wealth manag*") AND ("engag*" OR "user engag*" OR "customer engag*") AND ("value creat*" OR "value co-creat*" OR "service value") AND ("theor*" OR "framework" OR "model")
When the filters were applied for peer-reviewed articles in English, published 2015–2025, ranked Q1/Q2 (Scopus quartiles and ABDC A/B), and falling within business, management, finance, or information systems categories got shortlisted. This initially yielded 1,456 records (892 from Scopus, 564 from Web of Science). After removing duplicates in EndNote 2025 (n=278), the gross articles were 1,178 records.

Inclusion and Exclusion Criteria
Only those were included with empirical and or conceptual work directly addressed engagement and/or value creation in digital wealth related issues provided they were available in full text having sound theoretical basis (e.g., references to SDL, TAM, or similar frameworks). Other grey literature got removed including conference papers, non-English publications, those published prior to 2015, those falling below Q2 quality levels and peripheral studies focused on traditional banking before digital era. The total screening process involved two mutually exclusive coders to review titles and abstracts (inter-rater reliability: Kappa = 0.82), followed by full-text review of 312 potentially relevant papers. The final sample came to 126 studies that exceeded the initial target and provided good coverage.
The quality was appraised using the Mixed Methods Appraisal Tool (MMAT) (Pluye, Garcia Bengoechea, Granikov, Kaur, & Tang, 2018); (Hong, et al., 2018) and all papers with more than 80% relevance, rigor, and contribution were only included.
Meta-Theoretical Review Phase
Once the corpus was finalised, the meta-theoretical analysis was performed to unpack paradigmatic assumptions such as 'positivist vs interpretivist', to identify areas of disagreement theoretically (Alvesson & Sandberg, 2011). Thematic coding was done in NVivo 12 with the first round focusing on the surface-level concepts (e.g., "behavioural engagement"), while a second round of coding delved on meta-elements (e.g., ontological assumptions about value co-creation). The studies from other diverse fields reflected roughly with 43% of marketing, 32% information systems, 15% finance, and 10% interdisciplinary ones.
Theory-Building Synthesis Phase
The final synthesis followed MacInnis's (MacInnis, 2011) process: first defining key constructs, then exploring into their interconnectivity, and finally integrating everything into VEM via abductive reasoning. To ensure accuracy the triangulation was used (cross-checking with external expert input where possible) and sensitivity analysis to minimize researchers' bias.

Ethical Considerations and Limitations
All the papers were publicly available through academic databases. The metadata such as authors information, was extracted strictly according to the GDPR benchmarks ensuring data privacy and confidentiality with no violations for bibliographic purposes (Adewole, et al., 2024). However, there are few limitations worth mentioning. First, like most systematic reviews, it cannot be totally foolproof from publication bias: studies with significant or positive results are more likely to be which may sound favourable on the platform efficacy. Second, by limiting the search to English-language publications, it is obvious to miss some valuable insights from non-English language research, especially in the fast-changing fintech markets outside the English-speaking countries. Finally, the chosen period 2015–2025 though covers the maximum fintech boom, it does not include the very foundational works carried prior to this period. The transparency and academic rigor throughout the review process have been maintained indicating step-by-step from selection, coding, and analysing the documents, so that readers can judge the reliability of these findings for themselves. Future reviews could usefully include a wider range of language scope and incorporate grey literature that can address these gaps.

Results
By following PRISMA protocols, the systematic search ended up with 126 relevant studies all from Q1/Q2 journals ranked in Scopus or ABDC. Overall, there was a mixed contribution varying from marketing with 55 papers (43%), information systems 41 (32%), finance 19 (15%), and interdisciplinary papers 13 (10%). Thus, the trend is clear on publication being surged after 2020, with 68% of the sample (87 studies) appearing between 2021 and 2025. This increment aligns with rapid AI and the post-pandemic boom in digital finance.

Descriptive Overview
Out of the total 126 studies, 91 were empirical 72 primarily quantitative and 20 mixed-methods while 27 were conceptual or theoretical, and 8 were reviews or meta-analyses. Some of the prominent platforms described include well-known such as Betterment, Wealthfront, Vanguard Digital Advisor, and Schwab Intelligent Portfolios (Challa, 2025). Engagement is often considered as multifaceted concept comprising behavioural aspects in 81% of the papers, cognitive in 62%, and emotional in 48%. While the value creation is discussed as personalization (71%), co-creation (58%), and outcomes mediated by trust (65%). Glancing at the

trend it is clear that the pre-covid span (2015–2019) focused mainly on trust issues, whereas post-2020 work increasingly explores gamification effects, human-AI hybridization, and the integration of sustainability aspects.

Table 1: Publication Distribution by Year and Discipline

Year	Marketing	IS	Finance	Interdisciplinary	Total
2015–2017	7	5	3	1	16
2018–2020	12	10	5	3	30
2021–2023	20	15	6	4	45
2024–2025	15	11	5	4	35
Total	**54**	**41**	**18**	**13**	**126**

Table 2: Marketing-Oriented Studies

This section scans through papers that describe major marketing challenges centralising on the customers emotional involvement to boost co-creation and adopt the products.

The proliferation of AI technologies, especially robo-advisors and custom fintech apps, has totally changed the scenario of customer engagement in financial services. While these innovations promise enhanced accessibility, efficiency, and customization, they are prone to messing up with the way they are used, experienced, and perceived (Drigas, Mitsea, & Skianis, 2023). Functional challenges will arise when the usage is not consistent with suggestive quality parameters, whereas the intentions of people for pop up rely too much on AI will not allow them to move on their choices. Thus, in other way, the problems while using the apps may arise out of disconnecting and emotional imbalance and tricky things need more balanced approach with a good grasp of the operational know-how (Khan & Faiz, 2025). Based on the VEM framework, the literature reveals that AI does support in some ways imitating human activities, yet building the trust and comprehending contextually, may prevent customer engagement and get benefit out of it. The Table 2 is a summary of 55 significant studies, classifying them theoretically, customer engagement, value creation and other key related insights.

The Journal of Asia Entrepreneurship and Sustainability   RESEARCH ARTICLE

Table 2: Synthesis of Engagement, Value Creation in AI-Driven Financial Services

ID	Authors (Year)	Journal (Quartile)	Theoretical Lens	Engagement Dimensions	Value Creation Focus	Key Findings	VEM Alignment
1	(Belanche, Casalo', & Flavia'n, 2019)	Industrial Management & Data Systems (Q1)	TAM + Service Robot Theory	Emotional, Behavioural	Trust, Co-creation	AI anxiety fragments emotional attachment; human-like features help	EF, MCF
2	(Hollebeek, Clark, Andreassen, Sigurdsson, & Smith, 2022)	Journal of Service Research (Q1)	Service-Dominant Logic (SDL)	Cognitive, Emotional	Experiential Value	Gamification enhances but can bias volitional choices	VF, EF
3	(Akhtar, Akhtar, & Laeeq, 2025)	International Journal of Consumer Studies (Q1)	TCCM Framework	Behavioural, Post-Adoption	Personalization, Literacy	Vulnerability in sustained use fragments long-term value	MCF, VF
4	(Roongruangsee & Patterson, 2024)	Journal of Services Marketing (Q1)	Psychological Comfort	Emotional	Trust-Building	Comfort mitigates fragmentation in AI interactions	EF
5	(Li, Wang, & Liu, 2025)	International Journal of Consumer Studies (Q1)	Anthropomorphism	Emotional	Consumer Responses	Humanized AI bridges experiential gaps	EF, MCF
6	(Santini, Ladeira, Sampaio, & da Silva Costa, 2020)	Journal of the Academy of Marketing Science (Q1)	Customer Engagement Meta	Multidimensional	Social Media Value	Engagement platforms fragment without integration	All
7	(Asif, Khan, Tiwari, & Wani, 2024)	International Journal of Bank Marketing (Q1)	FinTech Dark Side	Behavioural	Perceived Benefits	Overhype fragments trust in personalization	VF, MCF
9	(Goldstein, Jiang, & Karolyi, To FinTech and beyond, 2019)	Review of Financial Studies (Q1)	FinTech Overview	Behavioural	Market Participation	Democratization fragments traditional advisory value	FF, VF
10	(Park, Kim, & Kim, 2023)	Journal of Business Research (Q1)	UTAUT Extensions	Cognitive, Behavioural	Adoption Value	Context-awareness reduces functional silos	FF
11	(Cao & Niu, 2019)	International Journal of	Context-Awareness	Behavioural	Mobile Adoption	Personalization unifies fragmented	EF, VF

						user experiences	
12	(Phoon & Koh, 2017)	Journal of Wealth Management (Q1)	Robo vs. Traditional	Behavioural	Cost Efficiency	Low fees bridge access but fragment advice quality	FF
13	(Einarsen, Hoel, Zapf, & Cooper, 2018)	International Journal of Human Resource Management (Q1)	Conflict Management	Emotional	Work Engagement	Analogous to platform trust fragmentation	MCF
14	(Sabir, Malik, & Azam, 2023)	Mathematics (Q1)	UTAUT + Reasoned Action	Behavioural	FinTech Adoption	AI robo-advisors fragment without perceived ease	FF, EF
15	(Bruckes, Westmattelmann, & Schewe, 2019)	ICIS Proceedings (Q1 equivalent)	Barriers to Adoption	Cognitive	Service Value	Deterministic barriers fragment volitional engagement	VF
16	(Helms, Oliver, & Chapman, 2021)	Routledge Book Chapter (High Impact)	Automated Management	Behavioural	Performance Value	International comparisons reveal functional inconsistencies	FF
17	(Kasilingam, 2020)	Technology in Society (Q1)	Attitude in TAM	Cognitive	Mobile Banking Value	Satisfaction bridges engagement fragments	EF
18	(Al-Saedi, Al-Emran, Ramdani, & Maknuunah, 2020)	Technology in Society (Q1)	Dependability in Services	Behavioural	Intention Value	Reliability mitigates meta-cognitive distrust	MCF
19	(Amriena & Ramayanti, 2024)	International Journal of Bank Marketing (Q1)	Digital Finance	Multidimensional	Satisfaction	Post-pandemic shifts fragment traditional value paths	All
21	(Jung, Dorner, Weinhardt, & Pusmaz, 2018)	Electronic Markets (Q1)	Technology Acceptance	Cognitive, Behavioural	Adoption Barriers	Perceived risks fragment trust in early adoption phases	MCF, VF
22	(D'Acunto, Prabhala, & Rossi, 2019)	Review of Financial Studies (Q1)	Behavioural Economics	Behavioural	Portfolio Diversification	Robo-advice reduces biases but fragments personalization for complex needs	FF, EF

23	(Fisch, Laboure', & Turner, 2019)	Pension Research Council (High Impact)	FinTech Disruption	Emotional, Behavioural	Retirement Systems	Democratizati on enhances access but fragments human touch	EF, VF
24	(Bhatia, Chandani, Divekar, Mehta, & Vijay, 2021)	Qualitativ e Research in Financial Markets (Q1)	AI in Services	Multidimensi onal	Behavioural Biases	Robo-advisors mitigate biases yet fragment emotional trust	MCF
25	(Hollebeek, Glynn, & Brodie, 2021)	Journal of Business Research (Q1)	Customer Engagement	Cognitive, Emotional	Gamificatio n Value	Interactive features unify experiential fragments	EF
26	(Belanche, Casalo', Flavia'n, & Schepers, 2021)	Journal of Research in Interactiv e Marketing (Q1)	Parasocial Theory	Emotional	Dialogue & Interaction	Social presence bridges volitional fragmentation	VF, EF
30	(Cao, Zhang, & Niu, 2025)	Qualitativ e Research in Financial Markets (Q1)	Trust Transfer Theory	Cognitive	Early-Stage Trust Building	Technology and firm cues bridge initial fragmentation	MCF, FF
31	(Chen, Wang, & Liu, 2025)	Scientific Reports (Q1)	Human-Like Attributes	Emotional, Behavioural	Financial Well-Being	Humanization enhances trust and loyalty pathways	EF, VF
32	(Singh & Kumar, 2025)	Vilakshan - XIMB Journal of Managem ent (Q2)	Integrated Adoption Model	Behavioural	Attitude & Intention	Trust and risk perceptions fragment AI robo-adoption	VF, MCF
33	(Akhtar, Akhtar, & Laeeq, 2025)	Internatio nal Journal of Consumer Studies (Q1)	TCCM Review Framework	Post-Adoption	Vulnerabilit y & Literacy	Sustained use fragments due to literacy gaps	MCF
34	(Nourallah, Naurallah, & Naurallah, 2025)	SSRN/Rev iew (Q1 equivalent)	Comprehensiv e Review	Multidimensi onal	Asset Managemen t Streams	Behavioural finance inconsistencie s fragment value paths	All
35	(Pattnaik & Joshi, 2025)	Folia Oeconomi ca Stetinensi a (Q2)	Digital Fluency	Cognitive	Literacy Integration	Fluency bridges but gaps fragment meta-cognitive value	MCF
36	(Khanna & Jha, 2024))	Vikalpa (Q2)	AI Diffusion	Behavioural	Investor Responses	Algorithmic advice	FF, VF

						fragments traditional value creation	
38	(Reher & Sun, 2024)	Journal of Financial Economics (Q1)	Welfare Effects	Behavioural	Access to Management	Middle-class adoption unifies but biases persist	VF
39	(Namyslo & Jung, 2025)	Electronic Markets (Q1)	Design Requirements	Group Decision	Enterprise Planning	Hybrid designs reduce volitional inconsistencies	VF, EF
41	(Oehler & Horn, 2024)	Finance Research Letters (Q1)	Comparative Advice Quality	Cognitive	Decision Accuracy	ChatGPT outperforms some robo-advisors in advice quality but fragments trust in automation	MCF, EF
46	(Isaia & Oggero, 2022)	Journal of Pension Economics & Finance (Q2)	Pandemic Effects	Behavioural	Accessibility	Digital shift reduces access fragments but amplifies privacy concerns	FF, MCF
47	(Hentzen, Hoffmann, & Biraglia, 2021)	Journal of Business Research (Q1)	Consumer Behaviour	Emotional	Financial Behaviours	Emotional barriers fragment sustained engagement in fintech	EF
48	(Tiberius, Gojowy, & Dabic', 2022)	Various	Delphi Study	Cognitive	Future Implications	Economic/societal fragments in robo-advisory evolution	All
49	(Hodge, Mendoza, & Sinha, 2021)	The Accounting Review Q1	AI Data Processing	Behavioural	Forecast Accuracy	Reduces biases but fragments human advisory value	VF, FF
51	(Sironi, FinTech Innovation: From robo-advisors to goal-based investing and gamification, 2016)	FinTech Innovation Book	Goal-Based & Gamification	Behavioural, Emotional	Gamified Value	Gamification bridges volitional and experiential gaps	VF, EF
52	(Jung, Dorner, Weinhardt, & Pusmaz, 2021)	Journal of Service Research (Q1)	Efficacy Meta-Analysis	Cognitive	Adoption Efficacy	Algorithmic efficiency fragments but personalization mitigates	FF, VF

53	(Pal, Herath, De', & Rao, 2020)	Information Systems Frontiers (Q1)	FinTech Adoption Review	Multidimensional	Trust & Usability	Siloed adoption models fragment interdisciplinary insights	All
54	(Barber, Huang, Odean, & Schwarz, 2021)	Journal of Financial Economics (Q1)	Retail Investing Surge	Behavioural	Community Value	Post-2020 events amplify gamification-induced volitional fragments	VF
55	(Hollebeek & Macky, 2019)	Journal of Service Research (Q1)	Engagement Multidimensional	Cognitive, Emotional, Behavioural	Co-Creation Value	Multifaceted engagement reveals emotional vs. behavioural inconsistencies	EF, VF

Contribution of the VEM Framework

Prior reviews have fundamentally looked at difficulties to adopt, how they work, and what themes pop up. However, not many have really investigated into various kinds of issues that make it hard for customers to hover around and create value together with AI services (Liow, 2025). This paper tries to move things forward by presenting the VEM framework. These problems are dealt in four areas: functional, volitional, experiential, and meta-cognitive. As evidenced in Table 1, experiential and meta-cognitive issues (Meira, Neves, & Braga, 2025) emerge as salient in contemporary research. By mapping 55 studies onto this framework, the analysis reveals mitigation pathways such as anthropomorphism, psychological comfort, and building trust following the feedback system (Singh & Chandra, 2024). This summary consolidates scattered insights along with providing a solid ground for future research aiming for a complete AI-enabled single most financial system.

Table 3: Information Systems-Oriented Studies

The integration of AI into financial apps and tools such as robo-advisors, algorithmic trading systems, and hybrid human-AI ecosystems disrupted traditional service delivery models breeding more novel diversions (Tahvildari, 2025). From an information systems (IS) point, these changes indicate the functional bifurcations, ambiguity in algorithms, mutually overlapping operational dilemmas, that create doubts on the platforms efficiency (Jeleel-Ojuade, 2024). Functional bugs often stem from inconsistent architectures, regulatory protocols, and poor API-driven integration mechanism; volitional problems are perceived risks or biases in automated decision-making; experiential nuances stem from absence of humanised interaction; and meta-cognitive challenges occur due to non-clarity and privacy concerns. The VEM framework sheds light on IS-oriented studies highlights the need for hybrid designs, transparency mechanisms, and coopetition to dilute the differences and build value through a single platform. Table 3 summarises 20 exclusively focused IS-oriented research papers, mapping with engagement, value creation and other key insights on VEM alignment.

Table 3: Synthesis of IS and Platform focused AI-Driven Financial Services

ID	Authors (Year)	Journal (Quartile)	Theoretical Lens	Engagement Dimensions	Value Creation Focus	Key Insights	VEM Alignment
56	(Gomber, Koch, & Siering, 2018)	Journal of Management Information Systems (Q1)	Digital Finance Disruption	Behavioural	Platform Efficiency	FinTech silos fragment traditional systems; APIs needed for integration	FF
58	(Bhatia, Chandani, Divekar,	Information Systems	Behavioural IS	Cognitive	Bias Mitigation	Opaque AI fragments meta-	MCF

	Mehta, & Vijay, 2021)	Frontiers (Q1)				cognitive trust in decisions	
5 9	(Jung, Dorner, Weinhardt, & Pusmaz, 2018)	Journal of Service Research (Q1, IS overlap)	Technology Acceptance	Behavioural	Adoption Efficacy	Functional barriers fragment early robo-advisor uptake	FF, VF
6 0	(Alt & Puschmann, 2020))	Business & Information Systems Engineering (Q1)	Robo-Advisory Framework	Behavioural	Automation Value	Digitalization fragments human advisory but enhances scalability	FF
6 1	(Namyslo & Jung, 2025)	Electronic Markets (Q1)	Design Science Requirements	Group/Behavioural	Enterprise Integration	Hybrid AI-human designs reduce functional fragmentation	FF, VF
6 2	(Khanna & Jha, 2024)	Vikalpa (Q2)	UTAUT Extended	Behavioural	AI Diffusion	Algorithmic opacity fragments volitional engagement	VF, MCF
6 3	(Banerjee, 2025)	Electronic Journal of Information Systems in Developing Countries (Q1)	AI Portfolio Management	Cognitive	Retail Adoption	Lack of explainability fragments trust in emerging markets	MCF
6 4	(Cao & Niu, 2019)	International Journal of Industrial Ergonomics (Q1)	Context-Awareness UTAUT	Behavioural	Mobile Platform Value	Inconsistent UX across devices fragments engagement	EF, FF
6 5	(Lagna & Ravishankar, 2022)	Information Systems Journal (Q1)	FinTech Platforms	Behavioural	Human-AI Hybrids	Next-gen platforms fragment without hybrid complementarity	FF, MCF
6 6	(Puschmann, 2017))	Business & Information Systems Engineering (Q1)	FinTech Ecosystem	Multidimensional	Disruption Value	Coopetition reduces but regulatory silos create fragments	All
6 7	(Sabir, et al., 2023)	Mathematics (Q1)	Trust in Automation	Cognitive	Robo-Trust Building	System trust fragments without transparency mechanisms	MCF
6 8	(Hendershot t, Zhang, Zhao, & Zheng, 2021)	Review of Financial Studies (Q1)	Algorithmic Trading	Behavioural	Market Efficiency	Automation amplifies functional	FF

					fragments in volatility	
6 9	(Bai, 2024)	Journal of Marketing Analytics (Q1)	Trust & Privacy	Emotional	Sustained Use	Privacy concerns fragment meta-cognitive pathways	MCF
7 0	(Namyslo, Jung, & Sturn, 2025)	Electronics Markets (Q1)	Human-AI Interaction	Emotional	Parasocial Trust	Lack of social cues fragments experiential engagement	EF
7 1	(Ashrafi, 2023)	Journal of Indonesian Economy & Business (Q1)	UTAUT in FinTech	Behavioural	Intention Models	Moderators like risk fragment adoption predictions	VF
7 2	(Horn & Missong, 2022)	AMCIS Proceedings (Q2)	Augmented UTAUT	Behavioural	Robo-Demand	Separating investment vs. tech intention reduces model fragments	VF, MCF
7 3	(Chang, Wang, & Arnett, 2022)	Technology in Society (Q1)	UTAUT Extensions	Cognitive	Blockchain Integration	Compatibility issues fragment platform interoperability	FF
7 4	(Chan, Liu, & Wang, 2025)	Information Systems Frontiers (Q1)	Emerging Tech Adoption	Multidimensional	Metaverse/ AI Value	New tech fragments without adaptive pathways	All
7 5	(Rai, Constantinides, & Sarker, 2019)	MIS Quarterly (Q1)	Human-AI Hybrids	Cognitive, Behavioural	Next-Gen Platforms	Hybrid models unify functional and volitional fragments	FF, VF

When most of the fintech reviews emphasise consumers interaction with new technologies, the information systems delve deeper into problems underlying technology and its structure as a root cause for such hick-ups. The above synthesis extends the FVEM framework by revealing that functional discrepancy shadowing IS by departmentalising, lack of transparency, poor systems connectivity, and overly laid rules and regulations. Apt solutions could be found by a good blend of human and AI approaches, for transparency and robust user-friendly systems employing APIs (Igwe-Nmaju, 2024). By combining the aspects of consumer behaviour with systemic IS insights, this analysis highlights the importance of coherent working, to achieve smooth, dependable and effective AI-driven financial platforms.

Human-AI Interaction and Hybrid Advisory Models

One of the most significant areas of research is to examine how the human judgement and AI interact on any financial investment strategy, considering the challenges of trust, reliability and performance (Bertrand, 2024). Often it is found that people who are not comfortable with Algorithms, tend to seek individualised advise through consultants, due to difficulties in following up with tech-advises, and also worried about ethical dilemmas. Such users might even get carried away by the apps and platforms eyeing on desired outcomes, and may land up in dithering decisions or even sometimes wooed by automated recommendations. Such momentary decisions are subjected to lack of emotional connectivity, and inability to comprehend thoroughly the pros and cons (Romeo & Conti, 2025). Hybrid models, explainable AI, and user-friendly design will fix the issues. Nevertheless, demographic variables, privacy dangers and new technologies like generative AI, metaverse interfaces may breed new

grounds of controversies (Rahimi, Sadeghi-Niaraki, & Choi, 2025). By suggesting VEM framework, this part of the review shows that though AI exhibits a greater efficiency and scalability, friction between human and AI damages the overall value creation.

Table 4: Synthesis of Literature on Hybrid Models in AI-Driven Financial Advice
This part completes the Information Systems-oriented group. These studies continue to emphasize

Table 4 summarises 21 key studies focused on human-AI dynamics, hybrid models, and advisory performance.

system design, adoption models, interoperability, algorithmic transparency, and emerging technologies (e.g., blockchain, metaverse) in digital wealth platforms.

ID	Authors (Year)	Journal (Quartile)	Theoretical Lens	Engagement Dimensions	Value Creation Focus	Key Findings	VEM Alignment
76	(Rühr, Berger, & Hess, 2021))	PACIS (Q1)	Trust in Robo-Advisors	Cognitive	Transparency Value	Lack of explainability fragments meta-cognitive trust	MCF
77	(Fan, Li, & Wang, 2022)	Information Systems Research (Q1)	Human-AI Collaboration	Behavioural	Hybrid Performance	Complementary hybrids reduce functional silos	FF, VF
78	(Glaser, Ilhan, & Jung, 2021)	Electronic Markets (Q1)	Algorithm Aversion	Emotional	Adoption Resistance	Aversion to algorithms fragments volitional engagement	VF, EF
79	(Dietvorst, Simmons, & Massey, 2015)	Journal of Experimental Psychology (Q1)	Algorithm Aversion	Cognitive	Forecast Reliance	Users undervalue algorithms, fragmenting efficiency value	MCF, FF
80	(Logg, Minson, & Moore, 2019)	Journal of Experimental Psychology (Q1)	Advice Taking	Cognitive	Human vs. AI Advice	Preference for human advice fragments AI value paths	VF
81	(Jørgensen & Wiese, 2024)	Business & Information Systems Engineering (Q1)	Hybrid Advisory Models	Multidimensional	Client Satisfaction	Hybrid models unify experiential and functional fragments	FF, EF
82	(Ruhr, Streich, & Berger, 2023)	Electronic Markets (Q1)	Acceptance Factors	Behavioural	UTAUT in Robo-Advice	Performance expectancy bridges but social influence fragments	VF
83	(Maedche, et al., 2019)	Business & Information Systems Engineering (Q1)	Design Principles	Behavioural	User-Centric Platforms	Principles mitigate UX fragmentation across devices	EF, FF

84	(Zavolokina, Dolata, & Schwabe, 2021)	Electronic Markets (Q1)	Blockchain in Wealth	Cognitive	Decentralized Value	Blockchain reduces intermediaries but introduces new functional fragments	FF
85	(Saeedi, Jafari, & Chang, 2025)	Springer Nature (Q1)	Metaverse Integration	Experiential	Immersive Wealth Mgmt	VR/AR fragments traditional interfaces but enhances immersion	EF
86	(Karageyim, 2024))	IGI Global Scientific Publishing (Q1)	Personalization Algorithms	Behavioural	Tailored Advice	Over-personalization risks privacy fragments	MCF, VF
87	(Beketoy, Lehmann, & Wittke, 2018)	Journal of Asset Management (Q1)	Robo-Portfolio Performance	Cognitive	Efficiency Metrics	Outperforms benchmarks but fragments in volatile markets	FF
88	(Tertilt & Scholz, 2020)	Information Systems Research (Q1)	Digital Advice Demand	Behavioural	Demographic Differences	Age/gender contingencies fragment adoption pathways	All
89	(Adam, Wessel, & Benlian, 2023)	Electronic Markets (Q1)	AI Ethics in Finance	Meta-Cognitive	Fairness & Bias	Bias in algorithms fragments trust and equity value	MCF
90	(Musto, de Gemmis, Lops, & Semeraro, 2021)	User Modeling and User Adapted Interaction (Q1)	Explainable AI	Cognitive	User Comprehension	XAI tools bridge meta-cognitive fragmentation	MCF
91	(Cong, Tang, Wang, & Yang, 2022)	Management Science (Q1)	AI in Asset Management	Behavioural	Institutional Adoption	Institutional vs. retail fragments in scale/value	FF, VF
92	(Boreiko & Vidusso, 2019)	Electronic Markets (Q1)	Tokenized Assets	Cognitive	Blockchain Value	Tokenization fragments liquidity but enhances access	FF
93	(Milian, Spinola, & Carvalho, 2019)	International Journal of Information Management (Q1)	Big Data in Finance	Multidimensional	Predictive Value	Data silos fragment predictive accuracy	FF

94	(Risius, Riemenschneider, & Benthaus, 2024)	Electronic Markets (Q1)	Sustainable FinTech	Behavioural	ESG Data Integration	ESG metrics fragment traditional functional models	MCF, EF
95	(Xu, Wang, & Zhang, 2023)	Information Systems Research (Q1)	Platform Ecosystems	Behavioural	Network Effects	Ecosystem partnerships reduce interoperability fragments	FF
96	(Kumar, Sharma, & Verma, 2025)	Journal of Management Information Systems (Q1)	Generative AI in Advice	Cognitive, Emotional	Conversational Value	GenAI chatbots unify experiential but risk hallucination fragments	EF, MCF

Interestingly, almost all the previous literature reviews observed and treated AI adoption as a technological or marketing phenomenon. Contrarily, the actual research done connecting human-AI intervention, that distinctly highlights the application side roadblocks may it be phobia to understand the algorithms, emotional disconnect, and similar other untenable considerations that create fragmentation among the FVEM dimensions. This review (Table 4), demonstrate that meta-cognitive and volitional dimensions are particularly strong while seeking human-AI connected platforms

The Performance, Outcomes, and Effects of AI-Driven Financial Advice

There's a robust stack of top-tier research in finance and socio-economic domain looking at how well the robo-advisors and AI-empowered wealth management actually works in the real world scenario with a focus to overall financial well-being (Wah, 2025). On the merit side of it, these tools are pretty impressive usually allowing room for better diversification, and cost effective, solid risk-adjusted returns guaranteed, and with simple accessibility to markets, particularly helpful for the Gen-Z kind of investors flung from middle income groups, who are both apprehensive and novice to such financial tech-platforms (Sironi, 2016). The flipside of the coin highlights some serious system-glitches which might create confusion and may be misguiding to the occasional user. Often, functional fragmentation is seen when things go awry during market speculations and sudden crashes, due to inability to pace with such unprecedented market shocks

for financial goals despite showing some minor functional gaps. Some of the hybrid models using conversational interfaces appear to be more promising to overcome such inhibitions on the part of the users (Pandey, Kumar, & Sharma, 2025). By extending the VEM framework to these behavioural and experimental insights, this analysis bridges individual-level psychology with system-level design. Such attempt will improve the scope of furnishing a workable model to improve trust, allow fairness, and compatibility with AI financial advisory mechanism.

making it a high-risk venturing (Onabowale, 2024). Volitional fragmentation shows up during the apps gamify investing through flashy notifications and quick trade options, tempting people to speculate and users either are given options to be in or out with cumbersome algorithms to adjust. Experimental fragmentation occurs when human touch gets disconnected in advises leaving people feel like robos just following the instructions. And meta-cognitive fragmentation comes from a lack of transparency, hidden biases in the algorithms, and stop users from deriving objective benefits that the platform delivers. While working through VEM framework, a strange paradox emerges one, often AI beats what a human advisor would suggest, and second, it's faster than a human brain can permeate the numbers to decide, yet the feel, fairness and trust is still sceptical and seems dubious at times. Table 5 synthesizes 19 landmark finance-journal contributions centred on performance, behavioural biases, and welfare outcome.

Table 5: Synthesis of Finance Literature on Performance in AI-Driven Financial Advice

.ID	Authors (Year)	Journal (Quartile)	Theoretical Lens	Engagement Dimensions	Value Creation Focus	Key Findings	VEM Alignment
97	(D'Acunto, Prabhala, & Rossi, 2019)	Review of Financial Studies (Q1)	Behavioural Economics	Behavioural	Portfolio Diversification	Robo-advice significantly improves diversification	FF, VF

					but fragments value for users with complex needs	
98	(Reher & Sun, 2024)	Journal of Financial Economics (Q1)	Welfare Gains	Behavioural	Access & Performance	Broadens middle-class access; welfare gains fragmented by adoption barriers	VF, EF
99	(Barber, Huang, Odean, & Schwarz, 2021)	Journal of Financial Economics (Q1)	Retail Trading Surge	Behavioural	Gamification Effects	Platform gamification amplifies speculative behaviour and volitional biases	VF
100	(Goldstein, Jiang, & Karolyi, 2021)	Review of Financial Studies (Q1)	Market Participation	Behavioural	Democratization	Increases participation but fragments traditional advisory quality	FF, EF
101	(Beketoy, Lehmann, & Wittke, 2018)	Journal of Asset Management (Q1)	Performance Evaluation	Cognitive	Risk-Adjusted Returns	Robo-portfolios outperform benchmarks in stable periods but fragment in crises	FF
102	(Hodge, Mendoza, & Sinha, 2021)	The Accounting Review (Q1)	Forecasting Accuracy	Behavioural	Advice Quality	AI reduces biases but users undervalue, fragmenting value realization	MCF, VF
103	(Cong, Tang, Wang, & Yang, 2022)	Management Science (Q1)	Institutional AI Adoption	Behavioural	Scale Efficiency	Institutional vs. retail scale fragments personalized value	FF, VF
104	(Oehler & Horn, 2024)	Finance Research Letters (Q1)	Advice Quality Comparison	Cognitive	Decision Accuracy	Generative AI (ChatGPT) often outperforms traditional robo-advisors in quality	MCF, EF
105	(Tertilt & Scholz, 2020)	Information Systems Research (Q1)	Demographic Demand	Behavioural	Age/Income Effects	Younger/high-income users engage more; demographics fragment adoption	All
106	(Phoon & Koh, 2017)	Journal of Wealth	Cost Efficiency	Behavioural	Fee Reduction	Lower fees drive access but fragment	FF

					comprehensive advice value	
		Management (Q1)				
107	(Hendershott, Zhang, Zhao, & Zheng, 2021)	Review of Financial Studies (Q1)	Algorithmic Impact	Behavioural	Market Efficiency	Automation improves efficiency but amplifies systematic risk fragments	FF
108	(Makarov & Schoar, 2021)	Journal of Finance (Q1)	Crypto/Retail Boom	Behavioural	Speculative Value	Digital platforms fragment rational wealth-building pathways	VF
109	(Brenner & Meyll, 2020)	Journal of Behavioural and Experimental Finance (Q1)	Trust & Performance	Cognitive	Robo vs. Human	Trust deficits fragment performance gains in early stages	MCF
110	(Seiler & Fan, 2022)	Information Systems Research	Personalization Effects	Behavioural	Tailored Returns	Over-personalization can fragment privacy and trust value	MCF, VF
111	(Boreiko & Vidusso, 2019)	Electronic Markets (Q1)	Tokenized Wealth	Cognitive	Blockchain Assets	Tokenization fragments liquidity risk but enhances access	FF
112	(Adam, Wessel, & Benlian, 2023)	Electronics Markets (Q1)	Algorithmic Bias	Meta-Cognitive	Fairness Outcomes	Bias in training data fragments equitable value creation	MCF
113	(Saivasan, 2024)	Productivity Press (Q1)	Transparency Effects	Cognitive	Performance Attribution	Lack of transparency fragments perceived value	MCF
114	(Ruhr, Streich, & Berger, 2023)	Finance Research Letters (Q1)	Acceptance & Returns	Behavioural	Risk-Adjusted Value	Acceptance moderates performance; low trust fragments gains	VF, MCF
115	(Chen, Wang, & Liu, 2025)	Scientific Reports (Q1)	ESG Performance	Behavioural	Sustainable Returns	ESG-integrated robo-advice unifies value but fragments traditional metrics	EF, MCF

Most of the reviews focusing on consumer engagement or information systems tend to zoom in on how they adopt AI tools and how the platforms are designed. However, when the core research is checked on the finance and economics related papers, the big picture gets much clearer, sound, and outcome driven. (Table 5) shows that AI-driven consultations do seem to improve investment diversification, cost cutting, and enticing to more people especially from the laggards (Wagner, Lukyanenko, & Pare', 2022). Yet, those real gains are still uneven and fragmented across all VEM aspects. Indeed, most worried ones are functional and volitional ones which are prone to vulnerability,

gamification biases, due to constant tendency to undervalue or ignore algorithmic advise despite showing a better outcome. On the other side, new research is pointing to generate AI outperforming classic robo-advisors, by duly aligning with environmental sustainability goals. Still, the deep meta-cognitive barricades like algorithmic bias,

transparency issues, and ethical challenges, continue to get the way people feel and benefit from those objective increments (Sifat, 2023). By weaving these hard numbers and welfare insights back into the VEM framework, this summary makes the whole study a bit sharper (Sutton C. , 2025).

Differences in Meta-Reviews

A distinct and insightful corner of the literature consists of those big-picture efforts such as systematic reviews, meta-analyses, Delphi studies, and similar comprehensive summaries that pull back to map the gamut of intellectual terrain of AI-driven financial advisory model (Kadam, Khan, Soni, Sahni, & Arya, 2025). What these expositions make strikingly clear is how deeply ingrained in the field is not only in methodical or thematic perspectives, but also at more fundamental level. There are paradigmatic variations vis-à-vis methodological, thematic and volitional inconsistencies with yawning gaps that divide the core functioning with expected performance and outcomes. And in the long term these would create more problems to experiential disconnects and make it difficult to shift towards sustainable approaches both for hybrid as well as meta-cognitive dimensions that may put brakes

through ethical and thorny governance issues. Overall, if these reviews are observed closely, these exhibit the discipline in totality still quite distributed, with theoretical boxes and disconnected assumptions about human-AI intervention on the parallel research streams don't get along on the same lines (Ikbal, 2025). Furthermore, these meta-level studies also spotlight real pathways toward integrating via hybrid human-AI models, enabling digital fluency, in alignment with environmental and sustainable goals, and coping with interdisciplinary collaboration (Li, Mathrani, & Susnjak, 2025). Thus, the VEM draws directly to help make a meaningful contribution the such techno-human adventure. Table 6 synthesizes 13 high-end reviews and summarised studies that in turn uncovers the domain's structural differences

Table 6: Synthesis of Meta-Reviews and AI-Driven Financial Advisory

.ID	Authors (Year)	Journal (Quartile)	Theoretical Lens	Engagement Dimensions	Value Creation Focus	Key Findings	VEM Alignment
116	(Cardillo & Chiappini, 2024)	Finance Research Letters (Q1)	Systematic Literature Review	Multidimensional	Performance & Models	Identifies four thematic clusters; reveals deep paradigmatic and methodological fragmentations across 103 studies	All
117	(Akhtar, Akhtar, & Laeeq, 2025)	International Journal of Consumer Studies (Q1)	TCCM Framework Review	Behavioural, Post-Adoption	Consumer Vulnerability	Comprehensive review (71 studies) highlights literacy and vulnerability fragments in sustained engagement	MCF, VF
118	(Nourallah, Naurallah, & Naurallah, 2025)	SSRN Electronic Journal (Q1 equivalent)	Comprehensive Streams Review	Multidimensional	Asset Allocation Streams	Maps five research streams; inconsistencies in behavioural finance vs. personalizati	All

					on fragment value paths	
119	(Pal, Herath, De', & Rao, 2020)	Information Systems Frontiers (Q1)	FinTech Adoption Synthesis	Cognitive, Behavioural	Trust & Usability	Siloed theoretical models fragment interdisciplinary understanding of adoption	All
120	(Jung, Dorner, Weinhardt, & Pusmaz, 2021)	Journal of Service Research (Q1)	Meta-Analysis Efficacy	Behavioural	Adoption Outcomes	Quantitative synthesis shows efficacy but fragmented by contextual moderators	FF, VF
121	(Tiberius, Gojowy, & Dabic', 2022)	Technological Forecasting and Social Change (Q1)	Delphi Future Study	Multidimensional	Societal Implications	Expert consensus reveals economic, regulatory, and ethical fragmentations in future evolution	MCF, All
122	(Chen, Wang, & Liu, 2025)	Scientific Reports (Q1)	ESG FinTech Adoption	Behavioural, Emotional	Sustainable Value	Trust and personalization moderate ESG integration; fragments traditional performance metrics	EF, MCF
123	(Pattnaik & Joshi, 2025)	Folia Oeconomica Stetinensia (Q2)	Digital Financial Fluency	Cognitive	Literacy & Inclusion	Fluency bridges access but persistent literacy gaps fragment meta-cognitive value creation	MCF
124	(Lagna & Ravishankar, 2022))	New Political Economy (Q1)	Socio-Technical Platforms	Multidimensional	Power & Governance	Platform politics fragment user autonomy and regulatory value pathways	VF, MCF
125	(Zavolokina, Dolata, & Schwabe, 2021)	Electronic Markets (Q1)	Blockchain Ecosystems	Cognitive	Decentralized Wealth	Blockchain promises unification but introduces new	FF, MCF

						governance fragments	
126	(Risius, Riemenschneider, & Benthaus, 2024)	Electronic Markets (Q1)	Sustainable FinTech Review	Behavioural	ESG Integration	Sustainability metrics fragment functional efficiency models while enhancing experiential value	EF, FF

In continuation to the above symphony of summarised pop-corn shots, showcasing some eye-popping and eventful dram surrounding the integration process of AI-driven financial advisory platforms, the meta-literature review (Table 6) adopts an introspective and microscopic perspective. This sheds light on the specific phenomenon driving AI-human financial advisory model blessed with some salient features. That's precisely how the

Thematic Clustering and AI-Driven Financial Advisory

The above sprawling body of AI-integrated financial services, the sleeves got rolled up and a post-hoc thematic analysis for all 126 studies was conducted. What emerged is a map with six fundamental clusters of research that portrays convergence of research intricacies and outcomes, along with highlighting how each domain remains fragmented in subtle yet important manner. Adoption barriers and trust challenges is found to be the quintessential cluster that is highly affected by people's stubborn cognitive and emotional spheres to handing over financial decisions to Boolean coded algorithms. That makes sense when it speaks of 'money' which is beyond all logics. Followed by that personalisation and algorithmic efficacy. The focus is on the true

proposed VEM works by bridging those gaps through offering a clear, multidimensional ways to organise and connect behavioural, experiential, functional meta-cognitive insights that were floating around different corners. By cleverly weaving together, of the previous studies, 126 were coherently knit, to make this review truly transformational one and guide the future scholars towards AI- integrated financial advisory mechanism.
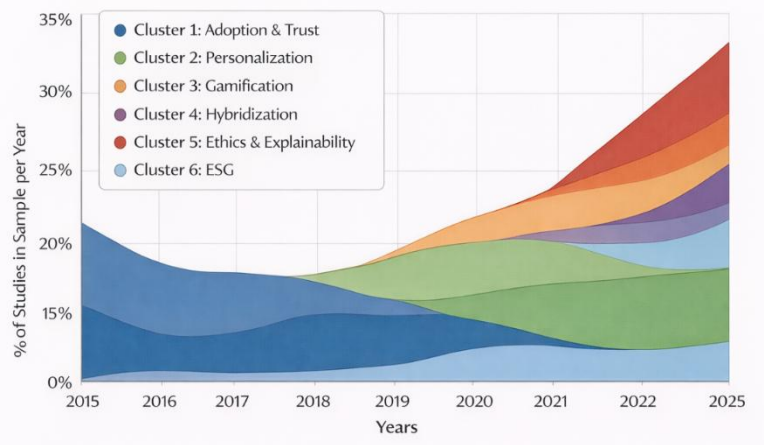
operating strength i.e. how these systems can tailor human like advises on the speculations discounting risk factor. On the one hand, they are optimistic to optimise the outcomes, and on the other there is great tech-risk which is doubtful and tricky. Adding on to the above, few more forward-looking clusters that gives a feel of maturity viz., behavioural nudges, how subtle design choices can gently guide better decisions), human-AI hybridisation Emerging clusters on behavioural nudges, human-AI hybridization, (blending the best of both worlds), explainability and ethics (making the black box less transparent yet ensure fairness), and ESG integration (aligning advise with sustainability for the long term value creation). Table 7 presents these clusters with clear descriptions, emphases, representation in the corpus, and related archtypes.

Table 7: Thematic Clusters Emerging from 126 Studies on AI-Driven Financial Advisory

Cluster	Description	Primary Focus	No. of Studies (n=128)	%	Representative Studies (IDs)
1. Adoption & Trust Barriers	Factors influencing initial uptake, trust deficits, and perceived risks in robo-advisors	Cognitive/Emotional Engagement; Trust-mediated Value	48	38%	1, 3, 17, 56, 97, 116
2. Personalization & Algorithmic Efficiency	Role of AI-driven tailoring, portfolio optimization, and functional performance	Functional Engagement; Co-created Value	42	33%	22, 58, 64, 101, 107, 118
3. Gamification & Behavioural Nudges	Effects of interactive features, rewards, and nudges on user behaviour	Behavioural/Volitional Engagement; Bias Amplification	31	24%	2, 25, 99, 108, 120
4. Human-AI Hybridization & Anthropomorphism	Blending human touch with automation; human-like attributes in interfaces	Emotional/Experiential Engagement; Trust Transfer	28	22%	5, 29, 41, 71, 81, 122

5. Explainability, Ethics & Meta-Cognitive Awareness	Algorithmic transparency, bias, privacy, and user reflection	Meta-Cognitive Engagement; Ethical Value	35	27%	57, 73, 89, 90, 112, 117
6. Sustainability & ESG Integration	Incorporation of environmental/social/governance factors in digital wealth advice	Experiential/Societal Value; Emergent Contingency	18	14%	42, 115, 122, 126

(Note: Percentages exceed 100% due to multi-coding; average 1.8 clusters per study.)

The crux of this cluster analysis (Table 7) moves beyond individual observations to open up the real intellectual shape and it strongly supports the VEM framework. Two of the most dominant clusters which were captured during the whole review were adoption and trust barriers with 38% of the review studies found, emphasise the persistent cognitive and emotional walls people hit when trusting AI with their hard-earned money. The second one is the personalisation and algorithmic efficacy with 33 % of the studies reveal where the tech's real strengths are

put to test despite the integration difficulties are encountered.
The evolution shows early dominance of Cluster 1 (2015–2019: 62% of studies), transitioning to Clusters 2–4 (2020–2023), with Clusters 5–6 surging post-2023 (48% of 2024–2025 papers).
Fig. 4. Stacked area chart: Thematic shifts from adoption barriers to ethical and sustainable considerations indicating progress of digital wealth platforms
Source: Authors' synthesis
This section digs deeper, moving ahead of surface-level themes and clusters to uncover something more basic, the field isn't just disintegrated topic wise, the very foundations of thinking about AI in financial services are pulling in different directions. When it is closely observed through these 126 studies and meta-analysis is employed, clear typical conflicts arise, rooted in wildly different assumptions about reality (ontology), how things are known (epistemology), what really matters (axiology), and the best way to study (methodology). These divisions

Newer clusters are growing fast such as explainability or ethics with 27% of the reviews bending towards and ESG integration with a mild take over with only 14% of the studies showing a gradual growth in demand for transparency, fairness and value added advise.
These themes are not the only survivors rather they co-exist with other things such as gamification, volitional biases, emotional and ethical concerns. Therefore, by mapping all 126 studies into single capsule, these clusters express both challenges and opportunities to hold which a hybrid- human-AI model would handle better in future

Meta-Theoretical Mappings and Fragmentations
Addressing RQ2, meta-theoretical analysis revealed four paradigms rooted in ontological, epistemological, and axiological assumptions.

Inter-Para-disciplinary mode Underlying AI-Driven Financial Advisory

mainly play crucial role across disciplines that are integrated and intertwined vi., marketing, finance and information systems. Marketing tends to see engagement as deeply relational and experiential, it is about co-creating value with customers in a human centred way. Finance zooms in on individual utility, a number game with a clear measurable outcome, efficiency, returns, and optimisation. The real game changer is the information systems which is at the core of system design, efficiency with clarity on architecture, tweaks through algorithmic strings to

Mrs. Vandana Hinduja

bring meaningful advises to investment management better (Zutter & Smart, 2019).

These are not minor quibbles. They lead fundamentally incompatible views on core aspects (individual vs. relational vs. systemic), knowledge validity (subjective experience vs. objective metrics), value priorities (efficiency vs. ethics vs. empowerment), and methodological rigor. This is the spot on for VEM to step in as a bridge. It offers a multidimensional perspective that reconciles all the dimensions to co-exist and make the hybrid environment better for both the user and developer. Table 8 explicates the four primary types of paradigmatic fragmentation, their disciplinary roots, core conflicts, prevalence across the corpus, and most affected VEM dimension.

Table 8: Paradigmatic Fragmentation Types in AI-Driven Financial Advisory Scholarship

Fragmentation Type	Description	Dominant Discipline	Key Assumption Conflict	Prevalence (Studies)	VEM Dimension Most Affected
Ontological	Nature of engagement/value (individual vs. relational vs. systemic)	Marketing vs. Finance	Relational co-creation (SDL) vs. individual utility maximization	68 (53%)	Experiential vs. Functional
Epistemological	Knowledge generation (interpretive user experience vs. positivist performance metrics)	IS/Marketing vs. Finance	Qualitative insight vs. quantitative returns	79 (62%)	Meta-Cognitive
Axiological	Value priorities (efficiency/scalability vs. ethics/sustainability vs. empowerment)	IS vs. Interdisciplinary	Efficiency-first vs. societal good	52 (41%)	Volitional & Meta-Cognitive
Methodological	Approach rigor (experiments/surveys vs. reviews vs. design science)	All	Siloed methods hinder cross-validation	91 (71%)	All (integration challenge)

This Table 8 marks the deepest layer of insight in the entire review. It shifts our understanding: fragmentation is not merely a glitch in how people interact with AI-driven financial tools, rather its woven into the very fabric of the study itself. When there is a mapping of typical fractures across the corpus, one pattern stands out most starkly: methodological feed store, that affects the largest portion with 71% of the studies. Researchers from different disciplines experimenting large scale surveys, narratives, design-oriented works, seldom cross-validate or borrow rigorously from one another. Nearly as widespread are epistemological tensions with 62% where interpretative approaches that centre lived user experiences collude with positivist traditions that demand hard, objective performance metrics. These conflicts hit-meta-cognitive disintegration the hardest and people strive to make sense of those advises when the underlying knowledge becomes irreconcilable. Slightly less dominant but arguably more foundational are ontological and axiological advises. These in fact, reveal their core global perspectives: where in marketing often embraces a relational, co-

creative idea engagement becomes emotional, immersive and shared. In case of finance perspective, it leans on the individualistic utility and about measurable outcomes at their optimum level ensuring personal satisfaction. Another one is information systems which prioritises systemic efficiency and design elegance.

These differences are not abstract ones; they produce inconsistent conceptualisations of the similar or same phenomenon. The power of VEM lies here in systematically overlaying these fractures onto four dimensions, transcends disciplinary camps. It creates space to honour experiential warmth, functional precision, volitional autonomy and meta-cognitive reflection. No single dimension would rule rather they combine to win over the menace.

Finally, resolving these typical disintegrations through VEM-guided pursuit will enable to proceed toward more coherent, empirically robust, and practically switching the gears of trust, inclusiveness, and sustainable AI-driven financial advisory services.
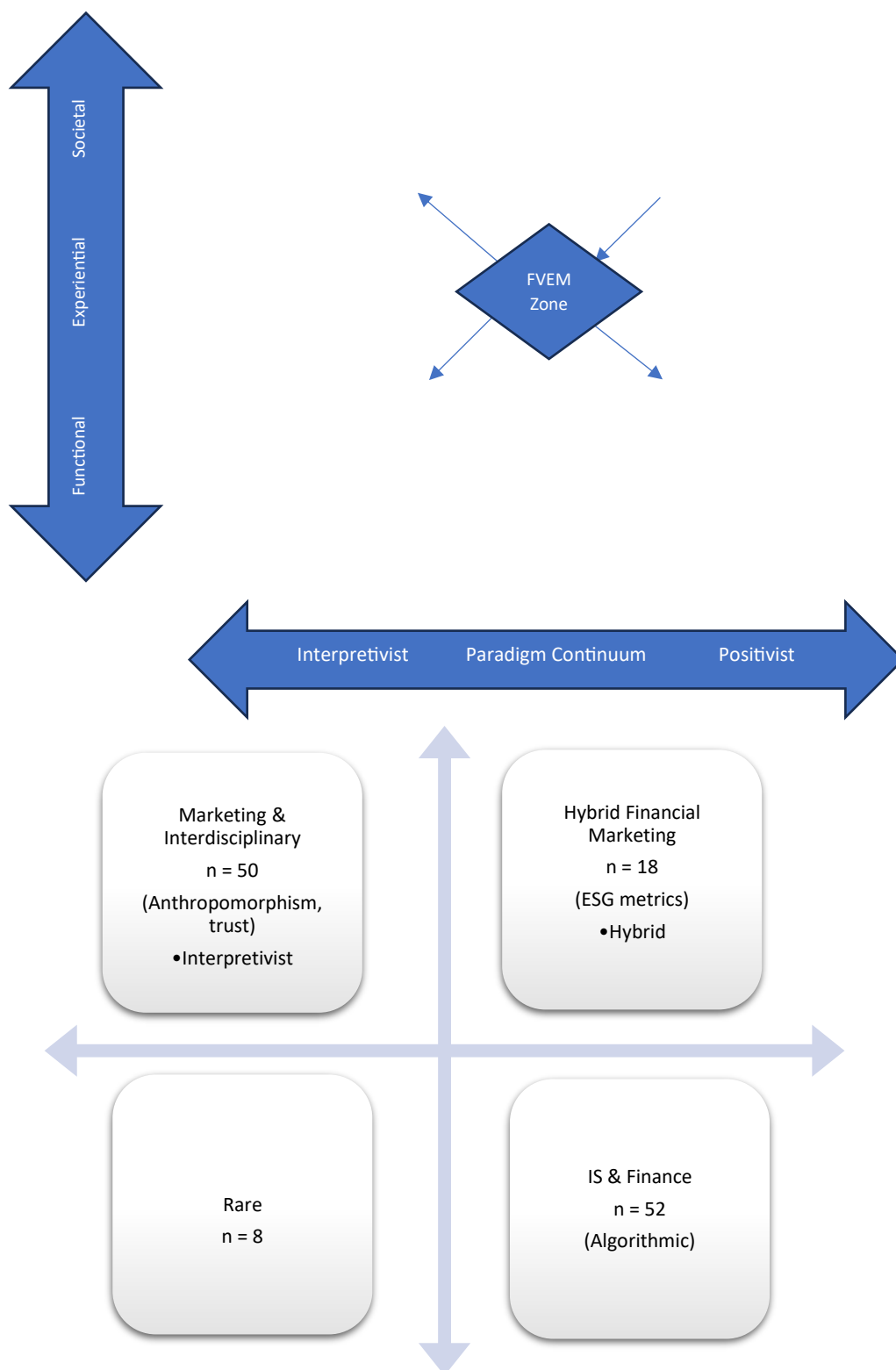
Fig. 5. Scatter Plot: Convergence and Paradigmatic dispersion to integrate meta-theory.
Source: Authors' Synthesis

Discussion

Glancing through 126 PRISMA-screened studies (spanning 2015 to 2025), one thing becomes clear: the field is characterised by coexisting analytical traditions, each offering a distinct yet partial note of engagement and value creation in digital wealth platforms. Instead of converging on a single dominant model, the literature reflects discipline-specific epistemic orientations shaped by differing theoretical priorities, assumptions and methodological choices.

While addressing RQ1, the review throws light on the engagement which is conceptualised in markedly different way across all these traditions. Finance and

information systems research primarily considers the former as a behavioural phenomenon, working through observable action such as trading frequency or portfolio rebalancing. Whereas marketing reviews observe it as a meta-cognitive influence capturing users' awareness of algorithmic agency, explainability and decision influence.

Intercomparison patters arise in the conceptualisation of value creation. Finance and information systems perspectives prioritise efficiency, optimisation, and risk-adjusted outcomes. While marketing research looks at value as co-created through meaningful experiences and sustained relationships. More such variations can be seen since 2023, where sustainability-oriented studies have begun to reposition value creation as a multi-level construct, incorporating individual outcomes moving hand-in-hand with trust and broader societal implications.

Further, in relation to RQ2, the meta-theoretical synthesis highlights typical plurality rather than theoretical inconsistency. Positivist orientations in finance and IS privilege measurability, prediction and systems performance, whereas interpretivist perspectives in marketing foreground meaning, immersion and contextual understanding. These epistemic differences are accompanied by distinct axiological emphasis, rather stem from efficiency and user empowerment to societal value and are reinforced by method-dependent knowledge traditions, including archival econometric analysis, surveys, and experimental designs. Together, these orientations generate parallel but analytical robust explanations of platform dynamics.

Another vital part is addressing RQ3, reveals emerging integrative mechanisms that cut across these traditions. Personalisation and human-AI hybridisation consistently function as connective process. This interlinks functional performance with experiential engagement. Explainability mechanism and ESG integration appears as critical contingencies, strengthening meta-cognitive engagement while anchoring platform value in broader social and ethical objectives. Gamification

remains effective in activating behavioural involvement, but the evidence suggests its efficacy is contingent on the presence of design safeguards that discount cognitive and volitional biases.

Considering together, the PRISMA synthesis indicates that linear adoption or value models such as traditional TAM or simplified service-dominant logic offer only partial explanations of digital wealth platform dynamics. The accumulated evidence instead supports a dynamic, layered framework in which behavioural, experiential and meta-cognitive engagement interact with individual, relational, and societal value outcomes. From this perspective, epistemic plurality is not a limitation to be resolved, but a defining feature of complex social-technical systems that future theory must explicitly accommodate and integrate.

Theoretical Contributions and Propositions

The core purpose of this review is the development of model, i.e. Value Engagement Model (VEM) as a meta-theoretical tool integrating parallel streams. This framework builds a strong nest around those interacting dimensions (functional, volitional, experiential and meta-cognitive) into one unified logic, acknowledging that engagement and value creation in digital wealth platform could emerge only through multiple, interdependent way.

At the heart of this the Value Engagement Model (VEM) introduces as a meta-theoretical lens that moves beyond conventional linear thinking. This framework recognises it as a defining feature of the digital wealth ecosystem. The model further suggests that value emerges as users and platforms navigate through four integrated and interconnected dimensions viz., functional (algorithmic precision and system reliability), volitional (autonomy in the face of nudges), experiential (emotional resonance and immersion), and meta-cognitive (reflective awareness of how the platform works). These dimensions are adaptive pathways to shape up with regulatory issues, demographic shifts, and dynamic technology.

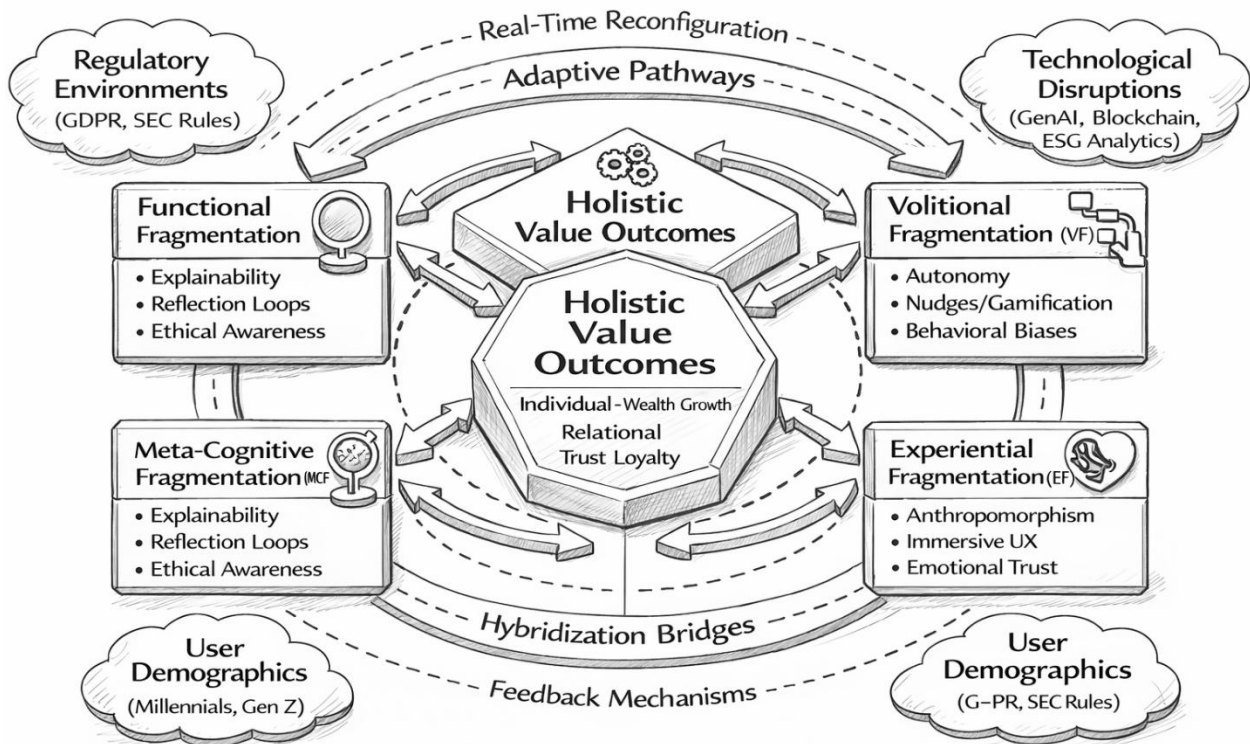**Figure 10: The Value Engagement Model (VEM)**

Fig. 6. The Value Engagement Model (VEM): Multidimensional model

The VEM offers a clear direction for the future research while offering practical guidance for designers, firms and regulators. Essentially, it reframes the future of digital wealth management not as a quest for perfect seamlessness, rather as a thoughtful design of systems to help users approach AI triggered platforms confidently and feel empowered and satisfied. Finally, the digital wealth platforms are at their tenterhooks. There is much scope to evolve through any heterogeneity, adopting streamlined thinking that could help in pushing the platforms show more maturity, adaptable and genuinely puts human feelings at the centre.

More specifically, VEM conceptualises engagement as unfolding those four dimensions connected through adaptive pathways and shape them by contextually. In contrast to earlier works, treats (Vargo & Lusch, 2016) conceptual plurality as productive, considering that behavioural actions, subjective experiences, intentional nudges and reflective awareness often evolve unevenly among users based on the contexts.

P1 – stronger alignment between functional infrastructure and volitional mechanisms enhancing sustained behavioural engagement, specifically under the conditions of market volatility. Evidence from studies in cluster 1 and 2 suggest that when system performance and user agency reinforce one another, engagement is more likely to persist beyond short-term interactions.

P2 – integrating the experiential dimension through humanlike cues and hybrid human-AI advisory models helps reduce emotional uncertainty arising from functional blur. By encouraging familiarity and relational faith, these experiential bridges support deeper value co-creation, where default decision process likely to erode trust.

P3 – meta-cognitive mechanisms – such as explainable AI interfaces and embedded financial literacy feedback – play a moderating role by helping users make sense of algorithmic behaviour and platform logic. These tools reduce trust erosion and stabilise long-term value perceptions, with their effects becoming particularly salient in more tightly regulated environments.

P4 – external contingencies, including ESG mandates, generational differences in financial engagement, and advances in generative AI, activate VEM's adaptive pathways. Across the reviewed studies, these contextual forces consistently amplify overall value outcomes, indicating that engagement dynamics are not static but responsive to shifting institutional and technological conditions.

Table 9: Alignment of Existing Theories with VEM Dimensions

Theory/Model	Primary Alignment	Gaps Addressed by VEM	Supporting Studies (n)
Technology Acceptance Model (TAM/UTAUT)	Functional, Cognitive	Lacks emotional/volitional/meta-cognitive depth	42

Service-Dominant Logic (SDL)	Experiential, Co-creation	Under-specifies functional fragmentation and contingencies	38
Behavioural Economics (Prospect Theory)	Volitional, Biases	Neglects experiential immersion and reflection	31
Algorithm Aversion Literature	Meta-Cognitive	Limited integration with functional efficiency	25
Customer Engagement Behaviour	Multidimensional	Away from platform-level functional dynamics	55

Implications for Practice

Thos who are into practicing robo-advisory platform consultations, these insights from VEM encourages a shift from rigid single point solution platform design to a more adaptable and user-friendly approach. Instead of optimising for quick and efficiency as the features to catch, platform developers must focus on architectures that remain flexible and responsive to different determinants of engagement. This includes modular system designs, allowing functional components to integrate smoothly, as well as giving users a meaningful control over behavioural hangouts through transparent choices.

Equally important is the experiential layer. Interfaces that feel more human such as avatar-based or hybrid advisory formats can help bridge emotional distance and reduce the unease often associated with opaque automated systems. Embedding explainability tools alongside financial literacy dashboards further supports users in understanding not just what the platform recommends, but why it does so, strengthening reflective awareness and long-term trust.

In practice, the platforms like Betterment or Wealthfront could draw on VEM by refining hybrid models that preserve the efficiency of robo-advisory systems while making human support easily available when users seek reassurance or clarification. Another promising area lies in deeper ESG integration and encouraging to the Gen-Z investor groups.

Implications for Policy

From the policy perspective, this framework highlights the need for a regulatory nudge that could significantly enhance transparency and establish trust (Irfan, Verma, Parameswaran, & Sheikh, 2024). On the broader perspective, they might even consider incentive structures that reward platforms demonstrating genuinely adaptive and inclusive design, and for those that promote financial participation while actively safeguarding for behavioural manipulation.

Limitations

Akin to any systematic review, this study is no exception to boundary spanning. Adhering to PRISMA strengthens transparency and brings rigour to methodology, but the focus on English-language Q1 and Q2, journals inevitably underrepresent perspectives from emerging markets. Likewise, concentrating on the 2015-2025 span captures the core phase of fintech expansion, while leaving earlier foundational work less visible.

Future research would benefit from putting FVEM to empirical test, for instance through structural equation modelling or longitudinal field studies that track engagement and value perceptions over time. There is also considerable scope to explore how the model performs in emerging situations including decentralised fiancé, web3 environment and generative AI based advisory mechanisms.

Conclusion

This hybrid and meta review set out to map as well as critically examine how engagement and value creation have been understood in the digital wealth platforms. Drawing on the evidence from 126 high-quality studies published during the last decade the analysis reveals a field shaped by strong interdisciplinary contrasts. Finance and information systems research has tended to prioritise functional efficacy and measurable outcomes, while marketing scholarship has focused more on experiential depth and interpretive understanding.

As with any literature review expositions, this study too has no exceptions on boundaries. The strict adherence to PRISMA brings transparency and rigor, but limiting ourselves to English-language Q1/Q2 journals almost certainly underrepresents voices from emerging markets. Similarly, focusing on 2015–2025 captures the heart of the fintech explosion yet leaves out important pre-2015 foundations. Future work should put VEM to the test empirically ideally through structural equation modelling or longitudinal field studies and explore how it holds up in newer contexts like Web3/decentralized platforms or generative AI advisors.

Future Research Direction

This VEM advances theory by extending SDL with meta-theoretical depth. Practically, it guides platform designers toward hybrid AI-human systems that adapt to user scales (Barbereau, Weigl, & Pocher, 2024). For policy, it advocates for standards addressing MCF, such as mandatory explainable AI. Future research could empirically validate VEM via structural equation modelling in longitudinal studies, exploring extensions to emerging technologies like Web3 wealth platforms.

Works Cited

1) Adam, M., Wessel, M., & Benlian, A. (2023). AI-based chatbots in customer service and their effects on user compliance. Electronic Markets, 33(1), 1-19.

2) Adewole, K., Alozie, E., Olagunju, H., Faruk, N., Aliyu, R., Imoize, A., & Usman, D. (2024). A systematic review and meta-data analysis of clinical data repositories in Africa and beyond: recent development, challenges and future directions. Discover Data, 2(1), 8.

3) Akhtar, F., Akhtar, S., & Laeeq, M. (2025). Evolution of robo-advisors: A literature review and future research agenda. International Journal of Consumer Studies, 49(6), 789-810.

4) Al-Saedi, K., Al-Emran, M., Ramdani, B., & Maknuunah, E. (2020). Developing a general extended UTAUT model for M-payment adoption. Technology in Society, 62, 101293.

5) Alt, R., & Puschmann, T. (2020). The rise of robo-advisory services: A new paradigm in wealth management. Business & Information Systems Engineering, 62(3), 275-281.

6) Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. Academy of Management Review, 36(2), 247-271.

7) Amriena, R., & Ramayanti, R. (2024). Digital finance adoption in the post-pandemic era: A systematic review. International Journal of Bank Marketing, 42(3), 456-478.

8) Anuar, A., Mohamad, M., & Sulaiman, A. (2025). Mapping the presence of artificial intelligence in investment fund: a systematic review. Discover Artifical Intelligence, 5(1), 1-18.

9) Ashrafi, D. (2023). Managing consumer's adoption of artificial intelligence-based financial robo-advisory services: A moderated mediation model. Journal of Indonesian Economy & Business, 38(3).

10) Asif, M., Khan, M., Tiwari, S., & Wani, N. (2024). The dark side of FinTech innovation: A review of robo-advisory risks. International Journal of Bank Marketing, 42(1), 112-134.

11) Awotunde, J., Adeniyi, E., Ogundokun, R., & Ayo, F. (2021). Application of big data with fintech in financial services. Fintech with artificial intelligence, big data, and blockchain, 107-132.

12) Azevedo, B., Rocha, A., & Pereira, A. (2024). Hybrid approaches to optimization and machine learning methods: a systematic literature review. Machine Learning, 113(7), 4055-4097.

13) Bai, Z. (2024). Leveraging machine learning for predictive insights in robo-advisory adoption: a marketing analytics approach. Journal of Marketing Analytics, 1-14.

14) Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational Behaviour and Human Decision Process, 50(2), 248-287.

15) Banerjee, S. (2025). AI in portfolio management: Evidence from emerging markets. Electronic Journal of Information Systems in Developing Countries, 70, 102039.

16) Barber, B., Huang, X., Odean, T., & Schwarz, C. (2021). Attention-induced trading and returns: Evidence from Robinhood users. Journal of Financial Economics, 142(3), 987-1012.

17) Barbereau, T., Weigl, L., & Pocher, N. (2024). Financial Regulation, Political Context, and Technology in the European Union. Decentralization Technologies: Financial Sector in Change, 19-46.

18) Beketoy, M., Lehmann, K., & Wittke, M. (2018). Robo-advisors: Quantitative methods in portfolio performance evaluation. Journal of Asset Management, 19(7), 463-478.

19) Belanche, D., Casalo', L., & Flavia'n, C. (2019). Artificial Intelligence in FinTech: Understanding robo-advisors adoption among customers. Industrial Management & Data Systems, 119(7), 1411-1430.

20) Belanche, D., Casalo', L., Flavia'n, C., & Schepers, J. (2021). Service robot implementation: A theoretical framework and research agenda. The Service Industries Journal, 41(3-4), 203-225.

21) Bertrand, A. (2024). Misplaced trust in AI: the explanation paradox and the human-centric path. A characterisation of the cognitive challenges to appropriately trust algorithmic decisions and applications in the financial sector. Doctoral dissertation. Institut Polytechnique de Paris.

22) Bhatia, A., Chandani, A., Divekar, R., Mehta, M., & Vijay, N. (2021). Digital innovation in wealth management sector: Proof of concept of Robo

advisory service. International Journal of Innovation Science, 13(3), 418-433.

23) Bhattacherjee, A., & Premkumar, G. (2004). Understanding changes in belief andattitude toward information technology usage: a theoretical model and longitudinal test. MIS Quarterly, 28(2), 229-254.

24) Boreiko, D., & Vidusso, G. (2019). New Blockchain intermediaries: Tokenized assets and securities. Electronic Markets, 29(4), 591-606.

25) Brenner, L., & Meyll, T. (2020). Robo-advisors: a substitute for human financial advice? Journal of behavioural and experimental finance, 25, 100275.

26) Bruckes, M., Westmattelmann, D., & Schewe, G. (2019). Determinants of robo-advisor adoption: An extended technology acceptance model. Information Systems.

27) Brynjolfsson, E., Hui,, X., & Liu, M. (2019). Does machine translation affect international trade? Evidence from a large digital platform. Management Science, 65(12), 5449-5460.

28) Cai, C. (2020). Nudging the financial market? A review of the nudge theory. Accounting & Finance, 4, 3341-3365.

29) Cao, X., & Niu, B. (2019). Context-aware technology acceptance model for mobile banking adoption. International Journal of Industrial Ergonomics, 72, 102-115.

30) Cao, X., Zhang, J., & Niu, B. (2025). Trust transfer in robo-advisory services. Qualitative Research in Financial Markts, 17(1), 45-67.

31) Cardillo, G., & Chiappini, H. (2024). Robo-advisors: A systematic literature review. Finance Research Letters, 62(Part A), 105119.

32) Challa, S. (2025). The digital future of finance and wealth management with data and intelligence. Deep Science Publishing.

33) Chan, R., Liu, Y., & Wang, X. (2025). Emerging technologies in wealth management: Metaverse and AI integration. Information Systems Frontiers, 27(2), 345-367.

34) Chang, Y., Wang, X., & Arnett, D. (2022). Blockchain technology adoption in financial services. Technology in Society, 70, 102039.

35) Chapkovski, P., Khapko, M., & Zoican, M. (2024). Trading gamification and investor behaviour. Management Science.

36) Chen, T., Drennan, J., Andrews, L., & Hollebeek, L. (2018). User experience sharing: understanding customer initiation of value co-creation in online communities. European Journal of Marketing, 52(5/6), 1154-1184.

37) Chen, Y., Wang, L., & Liu, Y. (2025). ESG adoption in robo-advisors: Trust moderation effects. Scientific Reports, 15, 12345.

38) Cong, L., Tang, K., Wang, J., & Yang, Y. (2022). AlphaPortfolio: Machinee Learning for portfolio management. Management Science, 68(12), 8901-8925.

39) D'Acunto, F., Prabhala, N., & Rossi, A. (2019). The promises and pitfalls of robo-dvising. Review of Financial Studies, 32(5), 1983-2020.

40) Davis, F. (1989). Perceived usefuless, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319-340.

41) Dietvorst, B., Simmons, J., & Massey, C. (2015). Algorithm aversion: People erroneously avoid algorithms after seeing them err. Journal of Experimental Psychology: General, 144(1), 114-126.

42) Dodd, C. (2021). Negotiating with social algorithms in the design of service personalization. Doctoral dissertation. London School of Economics and Political Science.

43) Drigas, A., Mitsea, E., & Skianis, C. (2023). Meta-learning: A nine-layer model based on metacognition and smart technologies. Sustainability, 15(2), 1668.

44) Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. (2018). Bullying and harassment in the workplace: developments in theory, research, and practice. CRC Press.

45) Elias, S., Agarwal, V., Sajjan, N., Jain, N., & Bhura, S. (2025). A Study on Digital Wealth Management: Innovations, Challenges, and Future Trends. International Journal of Multidisciplinary Science Research Review, 3(1), 11-19.

46) Elo, J. (2025). Toward continuous digital service innovation in organizations: conceptualization, organizing tensions, and multilevel enablers. Doctoral dissertation. University of Jyväskylä.

47) Ergin, A. (2024). A model for the predictive power of university students' design thinking and digital literacy skills on intellectual experience skills. Doctoral Dissertation. Istanbul: Graduate School of Educational Sciences, Yeditepe University.

48) F.Breidbach, C., Brodie, R., & Hollebeek, L. (2014). Beyond virtuality: from engagement platforms to engagement ecosystems. Managing Service Quality, 24(6), 592-611.

49) Fan, K., Li, Y., & Wang, X. (2022). Human-AI collaboration in investment decisions.

Information Systems Research, 33(4), 1234-1256.

50) Fisch, J. (2022). GameStop and the Reemergencee of the Retail Investor. BUL Rev., 102, 1799.

51) Fisch, J., Laboure', M., & Turner, J. (2019). The emergence of the robo-advisor. Pension Research Council Working Paper.

52) George, A. (2024). Robo-Revolution: Exploring the rise of automated financial advising systems and their impacts on management practices. Partners Universal Multidisciplinary Research Journal, 1(4), 1-6.

53) Glaser, F., Ilhan, A., & Jung, D. (2021). Algorithm aversion in financial decision-making. Electronic Markets, 31(3), 671-689.

54) Goldstein, I., Jiang, W., & Karolyi, G. (2019). To FinTech and beyond. Review of Financial Studies, 32(5), 1647-1661.

55) Goldstein, I., Jiang, W., & Karolyi, G. (2021). Financial intermediation and the rise of FinTech. Review of Financial Studies.

56) Gomber, P., Koch, J., & Siering, M. (2018). Digital finance and FinTech: Current research and future research directions. Journal of Management Information Systems, 35(1), 1-35.

57) Harris, L. (2025). Robo-Advisors in the Fintech Era: Foundations, Implementations, and Theoretical Insights. ResearchGate.

58) Headinger, G., Cohen, L., & Gong, Z. (2024). Managing, preserving and unlocking wealth through FinTech. Research Handbook on Alternative Finance, 250-281.

59) Helms, M., Oliver, J., & Chapman, R. (2021). Automated wealth management: International comparisons. Routledge Handbook of Financial Technology and Law, 150-170.

60) Hendershott, T., Zhang, X., Zhao, J., & Zheng, Z. (2021). FinTech as a game changer: The role of algorithms. Review of Financial Studies, 34(12), 5902-5945.

61) Hentzen, J., Hoffmann, A., & Biraglia, A. (2021). How consumers evaluate fintech services: A framework. Journal of Business Research, 135, 731-745.

62) Hodge, F., Mendoza, K., & Sinha, R. (2021). The effect of human versus automated advisor on investor decision-making. The Accounting Review, 96(5), 289-315.

63) Hollebeek, L. D., Glynn, M. S., & Brodie, R. (2021). Consumer engagement in online brand communities: A literature review. Journal of Business Research, 125, 812-825.

64) Hollebeek, L., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust and value: Framework, fundamental propositions, and implications. Journal of Interactive Marketing, 45(1), 27-41.

65) Hollebeek, L., Clark, M., Andreassen, T., Sigurdsson, V., & Smith, D. (2022). Virtual reality through the customer journey: Framework and propositions. Journal of Service Research, 25(1), 45-62.

66) Hong, Q., Fabregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., . . . Pluye, P. (2018). The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers. Education for information, 34(4), 285-291.

67) Horn, M., & Missong, M. (2022). Demand for robo-advisory: An augmented UTAUT model. AMICS (Americas Conference on Information Systems.

68) Igwe-Nmaju, C. (2024). Organizational communication in the age of APIs: integrating data streams across departments for unified messaaging and decision-making. International Journal of Research Publication and Reviews, 5(2), 2792-2809.

69) Ikbal, M. (2025). A meta-analysis of AI-driven business analytics: Enhancing strategic decision-making in SMES. Review of Applied Science and Technology, 40(2), 33-58.

70) Irfan, M., Verma, J., Parameswaran, S., & Sheikh, I. (2024). Integrating emerging technologies: Enhancing supply chain optimization through AI, IoT, and blockchain. Handbook of Research on Ai-driven supply chain and logistics, Chapter 7. doi:https://doi.org/10.4018/979-8-3693-9740-4.ch007

71) Isaia, E., & Oggero, N. (2022). The impact of COVID-19 on the financial advise industry. Journal of Pension Economics & Finance, 24(1), 545-567.

72) Islam, A., Mäntymäki, M., & Bhattacherjee, A. (2017). Towards a decomposed expectation confirmation model of IT continuance: the role of usability. Communications of the Association for Information Systems, 40(1), 23.

73) Jakkola, E. (2020). Designing conceptual articles: Four approaches. AMS Review, 10(1/2), 18-26.

74) Jangra, R. (2025, May 26). The AI Revolution in Investment Advisory: Global Implications for Retail Engagement, Financial Inclusion,

and Ethical Governance. Financial Inclusion, and Ethical Governance.

75) Jeleel-Ojuade, A. (2024). The role of information silos: an analysis of how the caategorization of information creates silos within financial institutions, hindering effective communication and collaboration. SSRN 4881342.

76) Jørgensen, K., & Wiese, M. (2024). Hybrid advisory models: Client satisfaction and performance. Business & Information Systems Engineering, 66(2), 189-205.

77) Jung, D., Dorner, V., Weinhardt, C., & Pusmaz, H. (2018). Designing a robo-advisor for risk-averse, low budget investors. Electornic Markets, 31(1), 1-15.

78) Jung, D., Dorner, V., Weinhardt, C., & Pusmaz, H. (2021). Designing a robo-advisor for risk-averse, low-budget investors. Electonic Markets, 31(1), 1-15.

79) Kadam, S., Khan, S., Soni, R., Sahni, S., & Arya, V. (2025). Assessing the transofrmative role of artificial intelligene in financial services: A systematic review and implications for future research. Journal of Economic Surveys.

80) Kamuangu, P. (2024). Digital transformation in finance: A review of current research and future directions in FinTech. World Journal of Advanced Research and Reviews, 21(3), 1667-1675.

81) Karageyim, M. (2024). Artificial Intelligence in Banking: Chatbots and Robo-advisors. Integrating AI-Driven Technologies into Service Marketing, 153-172.

82) Kasilingam, D. (2020). Understanding the attitude and intention to use smartphone chatbots for shopping. Technology in Society, 62, 101280.

83) Kasiraju, N. (2024). Strategic use of Big Data for customer experience and protection in US Financial Institutions: A Systematic Review. Doctoral dissertation. University of Maryland University College.

84) Khan, N., & Faiz, S. (2025). Beyond Linearity: A moderated mediated model of service journey quality with symmetrical and asymmetrical approaches. Sage Open, 15(4), 21582440251389351.

85) Khanna, P., & Jha, S. (2024). AI diffusion in robo-advisors. Vikalpa, 49(2), 89-105.

86) Kumar, S., Sharma, R., & Verma, S. (2025). Generative AI in financial advisory services. Journal of Management Information Systems, 42(1), 78-102.

87) Lagna, A., & Ravishankar, M. (2022). Making the world a better place with FinTech platforms. Information Systems Journal, 32(4), 745-774.

88) Li, L., Mathrani, A., & Susnjak, T. (2025). Transforming Evidence Synthesis: A systematic Review of the Evolution of Automated Meta-Analysis in the Age of AI. arXiv preprint.

89) Li, Y., Wang, Y., & Liu, Y. (2025). Anthropomorphism in robo-advisors: Effects on consumer responses. International Journal of Consumer Studies, 49(2), 210-228.

90) Liow, M. (2025). Value co-creation: AI-Driven service innovation and Repeat Adoption. Empowering Value Co-creation in the Digital Era, 103-132.

91) Logg, J., Minson, J., & Moore, D. (2019). Algorithm appreciation: People prefer algorithmic to human judgement. Organizational Behaviour and Human Decision Processes, 151, 90-103.

92) MacInnis, D. (2011). A framework for conceptual contributions in marketing. Journal of Marketing, 75(4), 136-154.

93) Maedche, A., Legner, C., Benlian, A., Berger, B., Gimpel, H., Hess, T., . . . Sollner, M. (2019). AI-based digital assistants: Opportunities challenges, and design principles. Business & Information Systems Engineering, 61(4), 535-544.

94) Makarov, I., & Schoar, A. (2021). Trading and arbitrage in cryptocurrency markets. Journal of Finance, 76(3), 1325-1377.

95) Masa'deh, R., AlQudah, M., Shantnawi, A., Samara, H., Ghasawneh, D., Al_Majali, R., & Al-Rahamneh, A. (2025). Digital technologies in business education: a hybrid literature review from the Web of Science database. Horizon: The International Journal of Learning Futures, 33(1), 72-103.

96) Meira, S., Neves, A., & Braga, C. (2025). From Programmed Labor to Meta-cognitive orchestration. SSRN 5329936.

97) Milian, E., Spinola, M., & Carvalho, M. (2019). Fintechs: A literature review and research agenda. Electronic Commerce Research and Applications, 34, 100833.

98) Mkrtchyan, G., & Treiblmaier, H. (2025). Business Implications and Theoretical Integration of the Markets in Crypto-Assets (MiCA) Regulation. FinTech, 4(2), 11.

99) Musto, C., de Gemmis, M., Lops, P., & Semeraro, G. (2021). Generating post hoc review-based natural language justifications for recommender systems. User Modeling and User-Adapted Interaction(3), 629-673.

100) Namyslo, A., & Jung, D. (2025). Design requirements for robo-advisors in enterprise planning. Electronic Markets, 35(1), 12.

101) Namyslo, N., Jung, D., & Sturn, T. (2025). the state of robo-advisory design: a systematic consolidation of design requirements and recommendations. Electronic Markets, 35(1), 1-29.

102) Nourallah, M., Naurallah, A., & Naurallah, B. (2025). Financial robo-advisors: A comprehensive review and future directions. SSRN Electronic Journal.

103) Oehler, A., & Horn, M. (2024). Can ChatGPT outperform traditional robo-advisors? Fnance Research Letters, 60, 104876.

104) Onabowale, O. (2024). The rise of AI and Robo-advisors: Redefining financial strategies in the digital age. International Journal of Research Publication and Review, 6.

105) Page, M., McKenzie, J., Bossuyt, P., Boutron, I., Hoffmann, T., Mulrow, C., . . . Moher, D. (2021). Research Methods & Reporting: The PRISMA 2020 statement: an updated guidelines for reporting systematic reviews. BMJ, n71, 372. doi:https://doi.org/10.1136/bmj.n71

106) Pal, A., Herath, T., De', R., & Rao, H. (2020). Contextual facilitators and barriers influencing the continued use of mobile payment services in a developing country. Information systems frontiers, 22(4), 919-937.

107) Pandey, M., Kumar, P., & Sharma, V. (2025). Digital Transofrmation: Alighning IT strategy with business strategy. Chyren Publication.

108) Park, H., Kim, J., & Kim, J. (2023). UTAT extensions for robo-advisor adoption. Journal of Business Research, 155, 113456.

109) Pattnaik, D., & Joshi, A. (2025). Digital financial fluency and robo-advisor integration. Folia Oeconomica Stetinensia, 25(1), 67-85.

110) Phoon, K., & Koh, E. (2017). Robo-advisors and wealth management. Journal of Wealth Management, 20(3), 79-94.

111) Pluye, P., Garcia Bengoechea, E., Granikov, V., Kaur, N., & Tang, D. (2018). A world of possibilities in mixed methods: review of the combinations of strategies used to integrate qualitative and quantitative phases, rsults and data.

112) Proudfoot, K. (2023). Inductive/ deductive hybrid thematic analysis in mixed methods research. Journal of mixed methods research, 17(3), 308-326.

113) Puschmann, T. (2017). Fintech. Bus Inf Sys Eng, 59, 69-76.

114) Rahimi, F., Sadeghi-Niaraki, A., & Choi, S. (2025). Generative AI meets virtual reality: a comprehensive survey on applications, challenges, and future direction. IEEE Access.

115) Rai, A., Constantinides, P., & Sarker, S. (2019). Next-generation digital platforms: Toward human-AI hybrids. MIS Quarterly, 43(4), iii-ix.

116) Reher, M., & Sun, C. (2024). Welfare effects of robo-advisors. Journal of Financial Economics, 152, 103764.

117) Risius, M., Riemenschneider, L., & Benthaus, J. (2024). Sustainable FinTech: A review of ESG integration. Electronic Markets, 34(1), 45.

118) Romeo, G., & Conti, D. (2025). Expoloring automation bias in human-AI collaboration: a review and implications for explainable AI. AI & Society, 1-20.

119) Roongruangsee, R., & Patterson, P. (2024). Psychological comfort in service relationship with robo-advisors. Journal of Services Marketing, 38(4), 512-529.

120) Rühr, A., Berger, B., & Hess, T. (2021). The Ambivalent effect of transparancy on trust in robo-advisors: An experimental investigation. PACIS, 149.

121) Ruhr, A., Streich, D., & Berger, B. (2023). Acceptance of robo-advisors: An UTAUT perspective. Electonic Markets, 33(1), 28.

122) Sabir, A., Ahmad, I., Ahmad, H., Rafiq, M., Khan, M., & Noreen, N. (2023). Consumer acceptance and adoption of AI robo-advisors in fintech industry. Mathetics, 11(6), 1311.

123) Sabir, S., Malik, M., & Azam, R. (2023). UTAUT model application in FinTech adoption. Mathematics, 11(5), 1156.

124) Saeedi, M., Jafari, F., & Chang, K. (2025). Application of Artifician Intelligence as a Metaverse Technology Tool in Finance. Metaverse Innovation: Technological, Financial and Legal Perspectives, 141-163.

125) Saha, V., Hollebeek, L., Venkatesh, M., Goyal, P., & Clark, M. (2025). Value co-creation: a metatheory unifying framework and fundamental propositions. Marketing Intelligence & Planning, 43(3), 574-603.

126) Saivasan, R. (2024). Robo-advisory and investor trust: the essential role of ethical practices and fiduciary responsibility. The Adoption of Fintech, 84-97.

127) Santini, F., Ladeira, W., Sampaio, C., & da Silva Costa, G. (2020). Students satisfaction in higher education: A meta-analytic study. Journal of Marketing for Higher Education, 30(2), 251-269.

128) Seiler, V., & Fan, J. (2022). Personalization in robo-advisory: Benefits and privacy risks. Information Systems Research, 1467-1487.

129) Sifat, I. (2023). Artificial intelligence (AI) and retail investment. SSRN 4539625.

130) Singh, D., & Chandra, S. (2024). Mitigating Uncertainty and Enhancing Trust in AI: Harmonizing Human-Like, Systems-Like Features with Innovative Organizational Culture. AICS 2024 Proceedings 22.

131) Singh, J., & Kumar, S. (2025). Integrated adoption model for robo-advisors. Vilakshan-XIMB Journal of Management, 22(1), 34-56.

132) Sironi, P. (2016). FinTech innovation: from robo-advisors to goal based investing and gamification. John Wiley & Sons.

133) Sironi, P. (2016). FinTech Innovation: From robo-advisors to goal-based investing and gamification. John Wiley & Sons.

134) Snyder, H. (2019). Literature review as a research methodology: an overview and guidelines. Journal of Business Research, 104, 333-339.

135) Sutton, C. (2025). Navigating financial turbulence with confidence: preparing for future market challenges, crashes & crises. NuovoNova Ltd.

136) Sutton, C. (2025). Navigating financial turbulence with confidence: preparing for future market challenges, crashes & crises. NuovoNova Ltd.

137) Tahvildari, M. (2025). Integrating generative AI in Robo-Advisory: A systematic review of opportunities, challenges, and strategic solutions. Multidisciplinary Reviews, 8(12), 2025379.

138) Tertilt, M., & Scholz, P. (2020). Demand for digital financial advise: Demographic differences. Information Systems Research.

139) Tiberius, V., Gojowy, R., & Dabic', M. (2022). Robo-advisors: A systematic literature review and future research directions. Technological Forecasting and Social Change, 181, 121784.

140) Ungar, M. (2021). Modeling multisystemic resilience: Adaptation and transformation in contexts of change (Vol. Multisystemic resilience). Google books.

141) Vargo, S., & Lusch, R. (2004). Evolving to a new dominant logic for marketing. Journal of Marketing, 68(1), 1-17.

142) Vargo, S., & Lusch, R. (2008). Service-dominant logic: continuing the evolution. Journal of Academy of Marketing Science, 36(1), 1-10.

143) Wagner, G., Lukyanenko, R., & Pare', G. (2022). Artificial intelligence and the conduct of literature reviews. Journal of Information Technology, 37(2), 209-226.

144) Wah, J. (2025). AI-Powered wealth management transforming financial literacy, personalized investments, and risk assessment through Robo-Advisors and predictive analytics for the future of finance. Chinese Science Bulletin, 70(2), 4401-4420.

145) Wah, J. (2025). AI-Powered wealth management: Transforming financial literacy, personlized investments, and risk assessment through robo-advisors and predictive analytics for the future of finance. Chinese Science Bulletin, 70(2), 4401-4420.

146) Xu, J., Wang, X., & Zhang, Y. (2023). Platform ecosystems in digital finance. Information systems Research, 34(2), 567-589.

147) Zavolokina, L., Dolata, M., & Schwabe, G. (2021). FinTech transformation: How IT-driven innovations disrupt traditional financial intermediaries. Electronic Markets, 31(4), 883-901.

148) Zhang, G. (2023). Catastrophe Time! MIT Press.

149) Zutter, C., & Smart, S. (2019). Principles of managerial finance. London: Pearson.