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The Emergence of Neuroaccounting: A Bibliometric Analysis of Financial Decision-Making Research

*Nur Syuhada Adnan, Syafiq Abdul Haris Halmi, Noor Emilina Mohd Nasir, Suraya Ahmad, Muhammad Shaqif Azfar Afandi
Faculty of Accountancy, Universiti Teknologi MARA, Cawangan Terengganu, Kampus Dungun, Malaysia
Email: *nursyuhada@uitm.edu.my, syafiqharis@uitm.edu.my, nooremilina@uitm.edu.my, suray4993@uitm.edu.my, shaqifazfar@uitm.edu.my
Corresponding Author: Nur Syuhada Adnan

Abstract: This paper aims to examine the intellectual landscape and thematic evolution of neuroaccounting, an emerging interdisciplinary field that integrates neuroscience, psychology, behavioral finance, and accounting to understand financial decision-making. Despite its conceptual relevance, neuroaccounting remains underrepresented in scholarly indexing and lacks a systematic bibliometric synthesis. Using a bibliometric analysis of 482 documents published between 1980 and 2025, this study investigates publication trends, citation metrics, document types, keyword patterns, and journal contributions. The research sample includes peer-reviewed articles, book chapters, conference papers, and other scholarly outputs indexed across major academic databases. Findings reveal a steady increase in academic interest, with notable growth in publications and citations from 2018 onward. Core themes such as cognitive biases, heuristics, behavioral finance, and investment decisions dominate the literature, even though "neuroaccounting" is not yet a mainstream keyword. High-impact contributions often originate from decision science and strategy journals, while behavioral finance journals serve as primary publication venues. Network and density visualizations highlight tightly connected thematic clusters centered on decision-making under uncertainty. The study's implications suggest that neuroaccounting is conceptually robust but still fragmented, requiring further empirical research in real-world settings and broader geographic representation. Limitations include citation lag in recent publications and the evolving terminology surrounding the field. This paper contributes by positioning neuroaccounting as a unifying label that bridges established research domains, offering a foundation for future interdisciplinary collaboration and methodological innovation in accounting and financial behavior research.

Keywords: *Neuroaccounting, Financial Decision-Making, Behavioral Finance, Bibliometric Analysis*

1. Introduction

In recent years, the convergence of neuroscience and accounting has led to the emergence of a field of research known as neuroaccounting. It is an interdisciplinary approach that integrates the techniques and knowledge of cognitive neuroscience, psychology, and behavioral economics to improve the understanding of how individuals interpret accounting information, make financial decisions, and respond to risk and uncertainty (Tank & Farrell, 2022). Neuroaccounting has emerged as a discipline that improves the understanding of the human decision-making process. This discipline examines the neurological basis of people's mental states during the decision-making process (Coşkun & Karakoç, 2020). A person's behaviors and psychological composition are crucial in the accounting reports that are evaluated and communicated to third parties. Although accounting consists of objective data due to its mathematical and numerical principles, it also includes subjective data due to various perspectives and interpretations (Coşkun & Karakoç, 2020). Dickhaut, Basu, McCabe, and Waymire (2010) argue that neurons coordinate human brain functions for obtaining and evaluating information that can lead to economic decision-making. According to Ahmad (2010), neuroaccounting is an emerging scientific discipline that examines the relationship between accounting principles and the cognitive functioning of the human brain in the context of economic decision-making and the construction of economic institutions.

Neuroaccounting is an application of methods and tools from cognitive neuroscience to understand accounting activities and address accounting issues (Guo, Cheng, & Zhang, 2022). Neuroaccounting analyses the impact of brain functions on the development of business practices, focusing on understanding the meaning of accounting numbers, analyzing accounting reports, and the decision-making process through theoretical frameworks based on cognitive and behavioral neuroscience. It aims to clarify the interactions between neurons during accounting processes and shows that accounting is not only dependent on numerical data but

also on human elements. Neuroaccounting shows that there is a strong parallel relationship between culturally evolved accounting and human brain processes in the process of making economic decisions (Dickhaut et al., 2010).

Corporate financial reporting constitutes a significant external information system that collectively establishes the framework necessary for informed economic decision-making. Neuroaccounting represents a specialized area within accounting research that integrates principles from accounting, finance, and neuroscience to investigate the neural mechanisms that influence financial decisions made by external stakeholders (Guo et al., 2022). Financial decisions involve complex scenarios where large amounts of information, heterogeneity, volatility, and significant uncertainty collectively impact the decisions of stakeholders (Ortiz-Terán, Diez, Sepulcre, Lopez-Pascual, and Ortiz, 2021). Neuroaccounting explores the realm of brain value representation to provide insights into financial decisions. The relevance of neuroaccounting to corporate finance is unveiled by examining how it influences financial reporting and valuation policy of firms, the corresponding regulatory framework, and the impact of financial disclosure on investment decisions of investors. Investors not only focus on information in financial statements but also on narrative disclosures and on overall economic conditions while making their investment choices. Both enhanced interpretability and clarity of financial disclosures will increase the investor's tendency to invest.

Neuroaccounting remains comparatively underexplored, although neuroeconomics has evolved into well-established research with significant theoretical and empirical contributions (Glimcher & Fehr, 2013), which makes a bibliometric review valuable. Therefore, a bibliometric analysis is used in this paper to provide a comprehensive data-driven review of research on neuroaccounting with a focus on financial decision-making. Bibliometric approaches provide a comprehensive framework for the quantitative study of large bibliographic datasets and allow for the objective mapping of intellectual and social structures within a given field. This study aims to map the knowledge structure, trends, and key contributors in research on neuroaccounting and financial decision making. In addition, the research objective for this study is to represent the landscape of neuroaccounting by analyzing publication trends, identifying leading authors, institutions, and countries, exploring thematic clusters and keyword trends, and suggesting avenues for future research directions.

The subsequent sections of this paper are structured as follows. Section 2 contains the literature review, Section 3 outlines the research methodology, Section 4 presents the findings, and Section 5 concludes the study with a summary of the findings and recommendations for future research.

2. Literature Review

Neuroeconomics has emerged as a multidisciplinary field that integrates neuroscience, psychology, and economics to investigate the neural mechanisms underlying decision-making. It challenges the classical economic notion of rational agents by incorporating emotional and cognitive biases into models of behavior (Camerer, Loewenstein, & Prelec, 2005). Foundational theories such as dual-process theory and prospect theory have become central to this discourse. Dual-process theory distinguishes between System 1 (fast and intuitive thinking) and System 2 (slow and analytical thinking), offering a framework for understanding how individuals navigate complex decisions (Krämer, 2014). Prospect theory complements this by illustrating how individuals evaluate gains and losses asymmetrically, with loss aversion playing a dominant role in shaping economic behavior (Tversky & Kahneman, 1979).

Building on these foundations, neuroaccounting has emerged as a specialized domain within neuroeconomics focusing on accounting-specific decision contexts such as auditing, fraud detection, financial reporting, and investment behavior. It seeks to uncover the cognitive and emotional mechanisms that influence professional judgment in high-stakes environments. Tank and Farrell (2022) conducted a systematic review of neuroscience-informed accounting research, identifying two dominant streams which are decision facilitating and decision influencing. Decision facilitating examines how individuals process accounting information, while decision influencing explores how individuals respond to controls and incentives. The result suggests that neuroaccounting is coalescing into a distinct subfield mirroring the developmental trajectory of neuroeconomics. This evolution reflects a growing recognition that accounting decisions are not purely rational but are shaped by affective and cognitive processes that can now be empirically observed and modeled.

While dual-process and prospect theory remain foundational, additional theoretical lenses offer valuable extensions to neuroaccounting. Cognitive load theory elucidated how task complexity and information density in accounting environments can overwhelm working memory, leading to heuristics shortcuts or judgment fatigue (Sweller, 1988). Moral foundations theory provides a framework for understanding how ethical intuitions such as fairness, loyalty, and authority manifest in financial reporting, audit decisions, and regulatory compliance (Graham, Haidt & Nosek, 2009). These perspectives enrich neuroaccounting's conceptual scaffolding and invite more nuanced investigations into the interplay between cognition, emotion, and ethics.

Recent methodological advances have further expanded the possibilities for neuroaccounting research. Rotaru, Rose, Ganbold, Rose, Loveridge, and Stamatelatos (2024) introduced a comprehensive guide to neuropsychological tools applicable to accounting studies, including near-infrared spectroscopy (fNIRS). These techniques offer real-time, non-invasive insights into emotional and cognitive responses, allowing researchers to study decision-making in more ecologically valid settings. This methodological diversification enhances the precision and depth of neuroaccounting investigations, particularly in contexts where traditional self-report measures fall short. The convergence of neurophysiological data with artificial intelligence and machine learning opens new frontiers for neuroaccounting research. Predictive models trained on biometric inputs such as pupil dilation, galvanic skin response, and neural activation patterns can enhance fraud detection, risk profiling, and behavioral forecasting (Rotaru et al., 2024). This integration marks a shift toward neuro-informed decision support systems where accounting technologies not only process data but also anticipate cognitive and emotional responses.

The scope of neuroaccounting is also broadening beyond financial reporting and auditing. Chen, Presslee, and Yang (2025) employed fNIRS to examine how functional diversity within managerial teams influences creativity in accounting-related decision-making. The findings highlight the relevance of neuroaccounting in organizational behavior and strategic control systems, suggesting that accounting research can benefit from interdisciplinary approaches that incorporate neuroscience, psychology, and managerial science. This underscores the potential of neuroaccounting to inform not only individual judgment but also group dynamics and institutional design. Neuroaccounting also holds implications for policy and regulation. Insights into cognitive biases and affective triggers can inform the design of disclosure standards, audit protocols, and ethics training programs. Regulators and standard-setting bodies may benefit from neuroscientific evidence when crafting interventions that promote transparency, accountability, and ethical conduct in financial decision-making.

Despite its promise, neuroaccounting remains underexplored in bibliometric terms. While bibliometric analyses have been widely applied in finance, behavioral economics, and neuroscience to map intellectual structures and research trends, neuroaccounting has yet to receive comparable attention. Existing reviews, such as that by Tank and Farrell (2022), offer conceptual insights but lack the systematic mapping needed to quantify the publication patterns, co-authorship networks, and thematic evolution. This gap limits the ability to assess the maturity of the field, identify influential contributors, and uncover emerging research clusters. A comprehensive bibliometric overview would provide a much-needed empirical foundation to guide future inquiry and foster interdisciplinary collaboration.

Bibliometric mapping has proven instrumental in consolidating emerging fields such as behavioral finance and behavioral accounting. For instance, Kumar and Choudhary (2023) conducted a comprehensive bibliometric analysis of over 1,500 articles, identifying five dominant research themes and visualizing author networks using VOSviewer and Biblioshiny. Similarly, Alam, Ahmad, Akhter, and Aziz (2025) employed Biblioshiny to map thematic clusters and citation trends, offering a systematic overview of behavioral finance's intellectual structure. These studies demonstrate how bibliometric techniques such as co-citation analysis, keyword clustering, and author centrality can illuminate the structural contours of a field, guide future inquiry, and foster scholarly convergence. Applying such methods to neuroaccounting would provide a much-needed empirical foundation to assess its maturity, map its thematic evolution, and identify emerging research clusters.

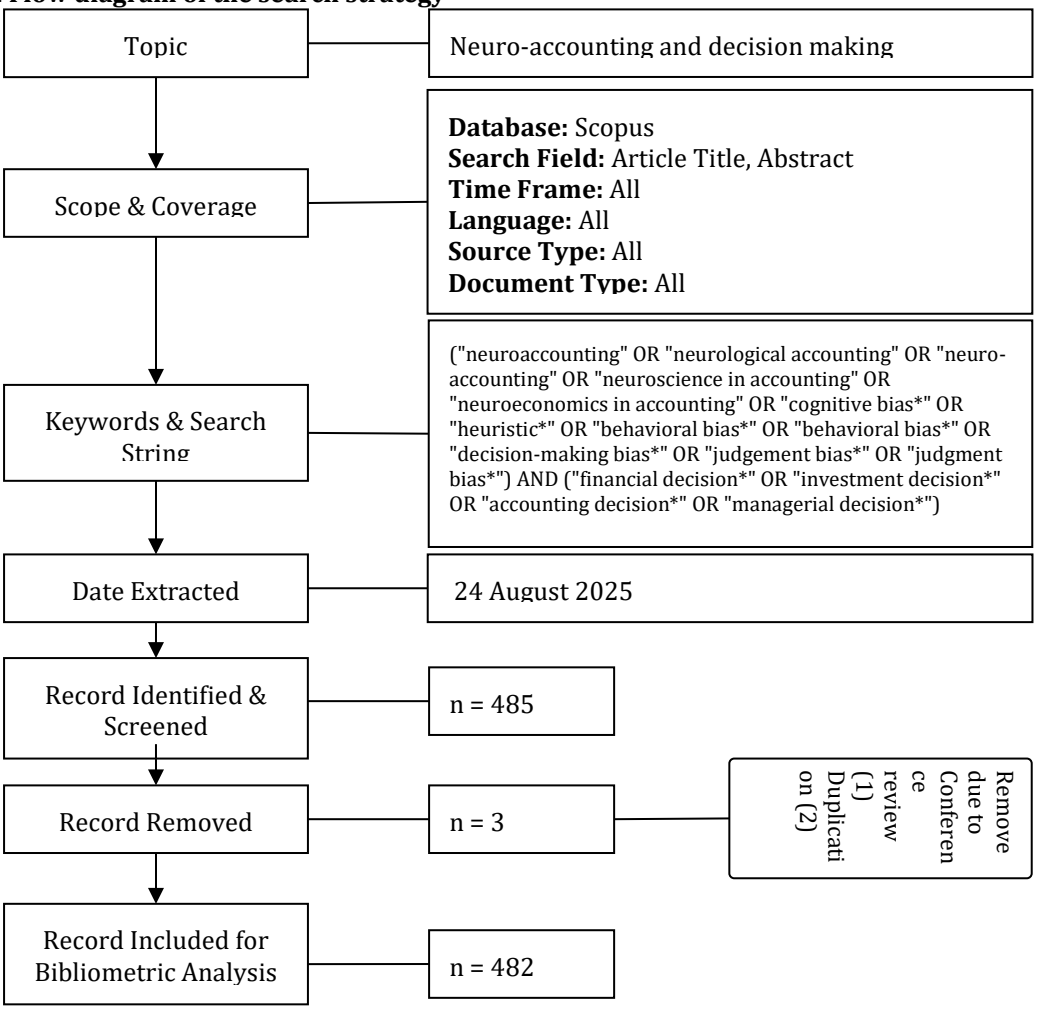
The integration of neuroscience into accounting research invites reflection on the epistemological boundaries of the field. Neuroaccounting challenges traditional conceptions of objectivity and rationality by foregrounding embodiment, emotion, and neural variability (Gallese, Mastrogiorgio, Petracca & Viale, 2021). Hence, it prompts a reexamination of what constitutes valid evidence on accounting scholarship and encourages

methodological pluralism that embraces both behavioral and biological data. Given the interdisciplinary nature and growing relevance of neuroaccounting, there is a pressing need for a systematic bibliometric review to chart its intellectual landscape. This would illuminate the field's current status, highlight key contributors and themes, and identify gaps ripe for exploration. By bridging neuroscience and accounting, neuroaccounting offers a transformative lens through which to understand and improve professional judgment, ethical behavior, and financial decision-making.

3. Methodology

In this study, a bibliometric analysis was used to map, measure, and visualize the development of academic literature on neuro-accounting and financial decision-making. This study does not focus on a systematic literature review but aims to provide a quantitative and visual overview of the intellectual structure and thematic development of the field over time. The analysis was carried out using Scopus metadata, a comprehensive and high-quality bibliographic database suitable for tracking academic and social science research. Scopus was selected for this study because of its extensive journal coverage and rich metadata, particularly in the social sciences and economics-related research. To retrieve relevant publications, a well-formulated search term was used in the Scopus database, which ensured that articles related to neuro-accounting and financial decision-making were included, as shown in Figure 1.

Figure 1: Flow diagram of the search strategy



Source: Zakaria et al. (2021), Moher et al. (2009)

The retrieved dataset comprised 482 publications, including metadata such as title, author, abstract, keywords, source title, year of publication, number of citations, and document type. The data was exported from Scopus in CSV format and carefully cleaned to remove duplicates and incomplete entries. Two main tools were used: biblioMagika® (Ahmi, 2024) for descriptive statistics such as publication trends, citation metrics, and productivity by document type, source title, and author, and VOSviewer for the creation and visualization of keyword co-occurrence maps to uncover key themes and emerging topics over time.

4. Findings and Results

The bibliometric analysis includes a total of 482 documents published between 1980 and 2025, as shown in Table 1. From the dataset, 46 years were identified as "citable years", indicating that scholarly output in this field has increased in importance and influence over time. This is also underpinned by the total of 14,522 citations, giving an average of 30.13 citations per document, with 379 documents cited, which is quite remarkable given the specialized nature of the topic. The h-index of 49 and the g-index of 113 indicate that a considerable proportion of the studies are widely recognized, with several highly cited. The m-index calculated at 1.065 indicates a constant scientific impact per year. Finally, the annual citation rate of 322.71 citations per year is a clear indication that neuroeconomics is not only gaining momentum but is also becoming increasingly relevant in explaining real-world phenomena in the area of financial judgment and behavior.

Table 1: Data description

MAIN INFORMATION	DATA
Publication Years	1980 - 2025
Total Publications	482
Citable Year	46
Number of Contributing Authors	1278
Number of Cited Papers	379
Total Citations	14,522
Citation per Paper	30.13
Citation per Cited Paper	38.32
Citation per Year	322.71
Citation per Author	11.36
Author per Paper	2.65
Citation sum within h-Core	13,709
h-index	49
g-index	113
m-index	1.065

Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024).

Table 2 provides a detailed breakdown of document types within the neuro-accounting literature and shows a clear dominance of articles in peer-reviewed journals, accounting for 77.80% of all documents (n = 375). This trend emphasizes the academic maturity of the field, as most articles appear in established journals. The second largest category is book chapters, which account for 13.07 % of publications (n = 63). Conference papers (3.32 %) and review articles (3.11%) appear less frequently but provide important snapshots of ongoing research. A small proportion of publications are in the form of books (2.49 %) and a single note (0.21%).

Table 2: Document type

DOCUMENT TYPE	TOTAL PUBLICATION	PERCENTAGE
Article	375	77.80%
Book Chapter	63	13.07%
Conference Paper	16	3.32%
Review	15	3.11%
Book	12	2.49%
Note	1	0.21%

Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024).

Table 3 shows the annual research output and citation metrics for the period from 1980 to 2025. The annual increase in the number of research papers on neuro-accounting and financial decision making reflects a gradual but notable evolution in the academic study of this area over the past four decades. The earliest recorded publication dates to 1980, and in the 1980s and early 1990s, there was only one publication per year. During this time, the field remained largely a niche area with one to three publications per year and a modest number of citations. A significant turning point occurred in 1993 when a single article received an extraordinary 5,388 citations, suggesting that it became a foundational reference for subsequent neuro-accounting research. This difference had a major impact on the field's citation metrics and demonstrates how seminal publications can shape new disciplines. A similar rise in influence can be seen in the early 2000s, with a gradual increase in publication volume and consistent citation activity, particularly from 2007 to 2010, when the citations per publication (C/P) ratio was high (127.25) 2007.

The years 2018 to 2022 were particularly productive, with an annual output of 22 to 36 publications and a consistently high number of contributing authors and citations. In 2022 alone, there were 99 contributing authors, 31 cited publications, and a total of 630 citations, indicating dynamic and collaborative research. In 2023 and 2024, the publication volume increased to 60 and 74 publications, respectively, suggesting strong and growing momentum in this area. However, as these are the most recent years, the citations per article are naturally lower due to the inherent citation lag (8.55 in 2023; 4.11 in 2024). The preliminary data for 2025 already show 54 publications with a total of 164 authors involved, indicating another active year. Although the number of citations is still low at this early stage (n = 56), this is to be expected due to the time lag in citation accumulation.

Table 3: Annual Research Output and Citation Metrics

Year	TP	NCA	NCP	TC	C/P	C/CP	*h*	*g*	*m*
1980	1	1	1	31	31.00	31.00	1	1	0.022
1985	1	2	1	2	2.00	2.00	1	1	0.024
1986	1	2	0	0	0.00	0.00	0	0	0.000
1987	1	4	1	157	157.00	157.00	1	1	0.026
1989	1	1	1	19	19.00	19.00	1	1	0.027
1990	1	1	1	16	16.00	16.00	1	1	0.028
1991	3	4	3	308	102.67	102.67	3	3	0.086
1992	1	2	1	9	9.00	9.00	1	1	0.029
1993	1	2	1	5388	5388.00	5388.00	1	1	0.030
1995	1	1	1	12	12.00	12.00	1	1	0.032
1996	2	3	2	62	31.00	31.00	2	2	0.067
1997	2	3	2	104	52.00	52.00	2	2	0.069
1998	2	6	2	102	51.00	51.00	2	2	0.071
1999	2	4	2	231	115.50	115.50	2	2	0.074
2002	3	7	3	297	99.00	99.00	3	3	0.125
2003	1	1	1	38	38.00	38.00	1	1	0.043
2004	2	4	2	49	24.50	24.50	2	2	0.091
2005	3	6	3	61	20.33	20.33	3	3	0.143
2007	4	11	4	509	127.25	127.25	3	4	0.158
2008	3	8	3	263	87.67	87.67	3	3	0.167
2009	7	13	4	92	13.14	23.00	3	7	0.176
2010	10	27	10	251	25.10	25.10	7	10	0.438
2011	7	16	7	464	66.29	66.29	6	7	0.400
2012	9	23	7	239	26.56	34.14	7	9	0.500

2013	12	35	12	284	23.67	23.67	9	12	0.692
2014	18	32	12	395	21.94	32.92	7	18	0.583
2015	12	35	10	408	34.00	40.80	7	12	0.636
2016	20	44	17	403	20.15	23.71	9	20	0.900
2017	17	44	15	813	47.82	54.20	10	17	1.111
2018	22	51	20	484	22.00	24.20	12	22	1.500
2019	28	69	25	611	21.82	24.44	11	24	1.571
2020	32	82	32	516	16.13	16.13	12	22	2.000
2021	28	72	27	401	14.32	14.85	11	19	2.200
2022	36	99	31	630	17.50	20.32	13	24	3.250
2023	60	186	48	513	8.55	10.69	12	20	4.000
2024	74	213	52	304	4.11	5.85	9	13	4.500
2025	54	164	15	56	1.04	3.73	4	6	4.000
Total	482	1278	379	14522	30.13	38.32	49	113	1.065

Note: TP=total number of publications; NCA=number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.
Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024)

The dissemination of research on neuro-accounting in financial decision making occurs in a variety of academic journals, as shown in Table 4, reflecting the multidisciplinary nature of the field. Among the academic journals, the Review of Behavioral Finance proved to be the most productive source with 16 publications and 48 authors. Although the total number of citations for this journal is modest (356), its influence is underpinned by an h-index of 22.25 and a g-index of 23.73, suggesting a steady visibility within the academic community. This is consistent with the journal's thematic focus on the behavioral aspects of finance, which overlaps closely with neuro-accounting. Other active contributors include Investment Management and Financial Innovations and Management Decision, each publishing 12 articles. While the former journal has a lower citation impact (only 47 total citations, C/CP = 4.70), the latter journal shows a stronger scientific commitment with 224 citations and a balanced h-index (18.67) and g-index.

In addition, the Strategic Management Journal, although contributing only 6 publications, recorded a remarkable 5,952 citations, an average of 992 citations per publication cited. The field of Decision Support Systems also shows a high scientific influence with 508 citations in only 6 publications, resulting in a C/CP of 84.67. The Journal of Economic Behavior and Organization and Investor Behavior: The Psychology of Financial Planning and Investing also serve as important platforms that focus on the study of cognitive biases and provide a theoretical basis for many neuro-accounting studies. Overall, the citation metrics show that most publications are in behavioral finance and management topics. In contrast, high-impact articles are often found in decision science and strategy journals, which shows how broad the topic is in terms of concepts and methods.

Table 4: Most Productive Source Title

SOURCE TITLE	TP	NCP	TC	C/CP	h	g
Review of Behavioral Finance	16	48	15	356	22.25	23.73
Investment Management and Financial Innovations	12	37	10	47	3.92	4.70
Management Decision	12	19	12	224	18.67	18.67
International Journal of Bank Marketing	9	24	9	169	18.78	18.78
Management Science	8	23	8	384	48.00	48.00
Global Business Review	7	19	7	57	8.14	8.14
Decision Support Systems	6	17	6	508	84.67	84.67
Journal of Economic Behavior and Organization	6	16	5	77	12.83	15.40
Investor Behavior: The Psychology of Financial Planning and Investing	6	11	6	108	18.00	18.00

Journal of Property Investment and Finance	6	17	5	109	18.17	21.80
Strategic Management Journal	6	17	6	5952	992.00	992.00

Note: TP=total number of publications; NCA=number of contributing authors; NCP=number of cited publications; TC=total citations; C/P=average citations per publication; C/CP=average citations per cited publication; h=h-index; g=g-index; m=m-index.
Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024).

Table 5 presents the ten most highly cited documents in this area and shows several key contributions that have significantly shaped the theoretical framework and the empirical investigation. The most influential work is the article published by Amit and Schoemaker (1993) with 5,388 citations and 163 citations per year. This is followed by Chen et al. (2007), whose study on the trading performance and behavioral biases of investors in emerging markets has been cited 362 times. Overall, the most highly cited papers in the field of neuro-accounting research reflect a rich interdisciplinary foundation, with important contributions from strategic management, behavioral economics, marketing, and decision sciences.

Table 5: 10 Highly cited documents

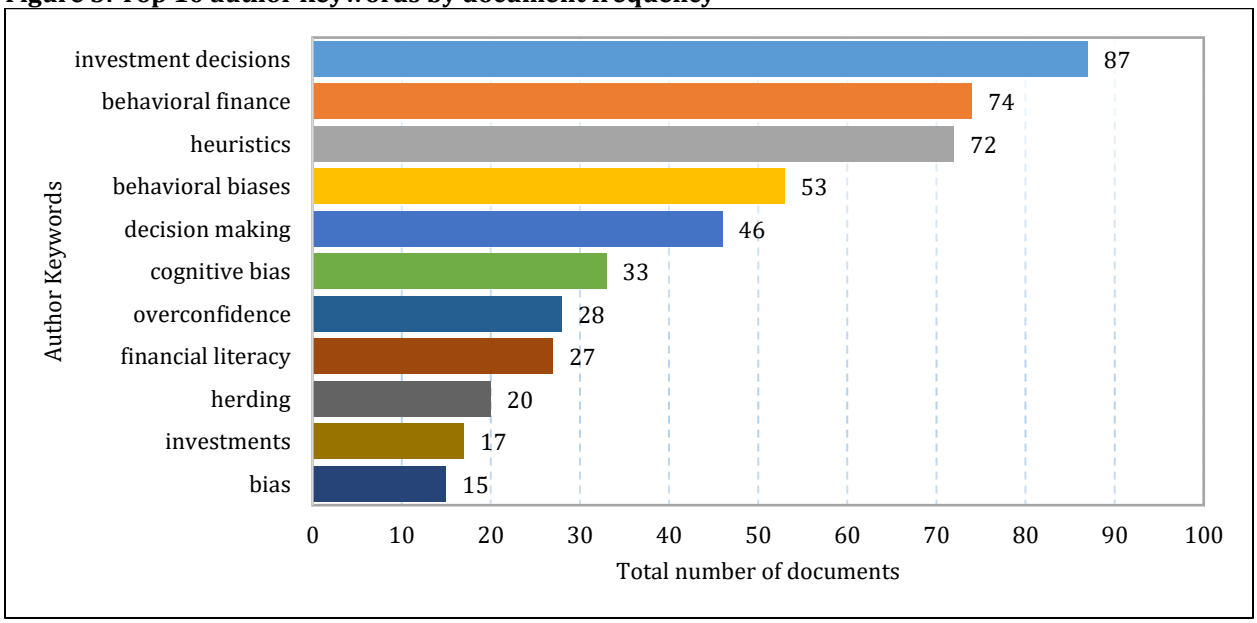
AUTHOR(S)	TITLE	SOURCE TITLE	TC	C/Y
Amit R.; Schoemaker P.J.H. (1993)	Strategic assets and organizational rent	Strategic Management Journal	5388	163.27
Chen G.; Kim K.A.; Nofsinger J.R.; Rui O.M. (2007)	Trading performance, disposition effect, overconfidence, representativeness bias, and experience of emerging market investors	Journal of Behavioral Decision Making	362	19.05
Schoemaker P.J.H. (1991)	When and how to use scenario planning: A heuristic approach with illustration	Journal of Forecasting	266	7.60
Leigh W.; Purvis R.; Ragusa J.M. (2002)	Forecasting the NYSE composite index with technical analysis, pattern recognizer, neural network, and genetic algorithm: A case study in romantic decision support	Decision Support Systems	228	9.50
Daniel K.; Titman S. (1999)	Market Efficiency in an Irrational World	Financial Analysts Journal	208	7.70
Wübben M.; Wangenheim F.V. (2008)	Instant customer base analysis: Managerial heuristics often "get it right"	Journal of Marketing	183	10.17
Ireland R.D.; Hitt M.A.; Bettis R.A.; De Porras D.A. (1987)	Strategy formulation processes: Differences in perceptions of strength and weakness indicators and environmental uncertainty by managerial level	Strategic Management Journal	157	4.03
Hauser J.R.; Toubia O.; Evgeniou T.; Befurt R.; Dzyabura D. (2010)	Disjunctions of conjunctions, cognitive simplicity, and consideration sets	Journal of Marketing Research	115	7.19
Tiwana A.; Jijie W.; Keil M.; Ahluwalia P. (2007)	The bounded rationality bias in managerial valuation of real options: Theory and evidence from IT projects	Decision Sciences	92	4.84
Yaniv I. (1997)	Weighting and trimming: Heuristics for aggregating judgments under uncertainty	Organizational Behavior and Human Decision Processes	88	3.034
Van Bruggen G.H.; Smidts A.; Wierenga	Improving decision-making by means of a marketing decision	Management Science	88	3.14

B. (1998)	support system			
Bhandari G.; Hassanein K.; Deaves R. (2008)	Debiasing investors with decision support systems: An experimental investigation	Decision Support Systems	63	3.50
Koehler J.J.; Mercer M. (2009)	Selection neglect in mutual fund advertisements	Management Science	59	3.47
Roberts C.; Henneberry J. (2007)	Exploring office investment decision-making in different European contexts	Journal of Property Investment and Finance	53	2.79
Leigh W.; Paz M.; Purvis R. (2002)	An analysis of a hybrid neural network and pattern recognition technique for predicting short-term increases in the NYSE composite index	Omega	47	1.96
Leigh W.; Modani N.; Hightower R. (2004)	A computational implementation of stock charting: Abrupt volume increase as a signal for movement in the New York Stock Exchange Composite Index	Decision Support Systems	47	2.14
Huhmann B.A.; Bhattacharyya N. (2005)	Does mutual fund advertising provide necessary investment information?	International Journal of Bank Marketing	45	2.14
Hutchinson J.W.; Alba J.W.; Eisenstein E.M. (2010)	Heuristics and biases in data-based decision making: Effects of experience, training, and graphical data displays	Journal of Marketing Research	42	2.63
Emmanuel C.; Harris E.; Komakech S. (2010)	Towards a better understanding of capital investment decisions	Journal of Accounting & Organizational Change	41	2.5625
Wickham P.A. (2003)	The representativeness heuristic in judgments involving entrepreneurial success and failure	Management Decision	38	1.65

Note: TC=total citations; C/Y=average citations per year
Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024).

The keyword analysis in Figure 3 highlights the thematic priorities of researchers in the field of neuro-accounting and financial decision-making. The most frequently used author keyword is “investment decisions” (87), followed by “behavioral finance” (74) and “heuristics” (72), indicating a strong focus on how cognitive shortcuts influence investment behavior. Other important keywords are “behavioral biases” (53), “decision making” (46), and “cognitive bias” (33), all of which reflect the field's focus on psychological and neurological factors in decision-making under uncertainty. Keywords such as “overconfidence” (28), “financial literacy” (27), and “herding” (20) refer to specific behavioral phenomena that are frequently studied in the literature. Interestingly, terms such as “investment” and “bias” also appear frequently, suggesting that the language around this research is based on both technical and psychological concepts. Although neuro-accounting is the central theme of this study, the term itself does not appear as a dominant keyword in the dataset. This can be attributed to the fact that neuro-accounting remains an emerging and interdisciplinary concept that is often embedded in broader topics such as investment decisions, behavioral finance, heuristics, and cognitive biases.

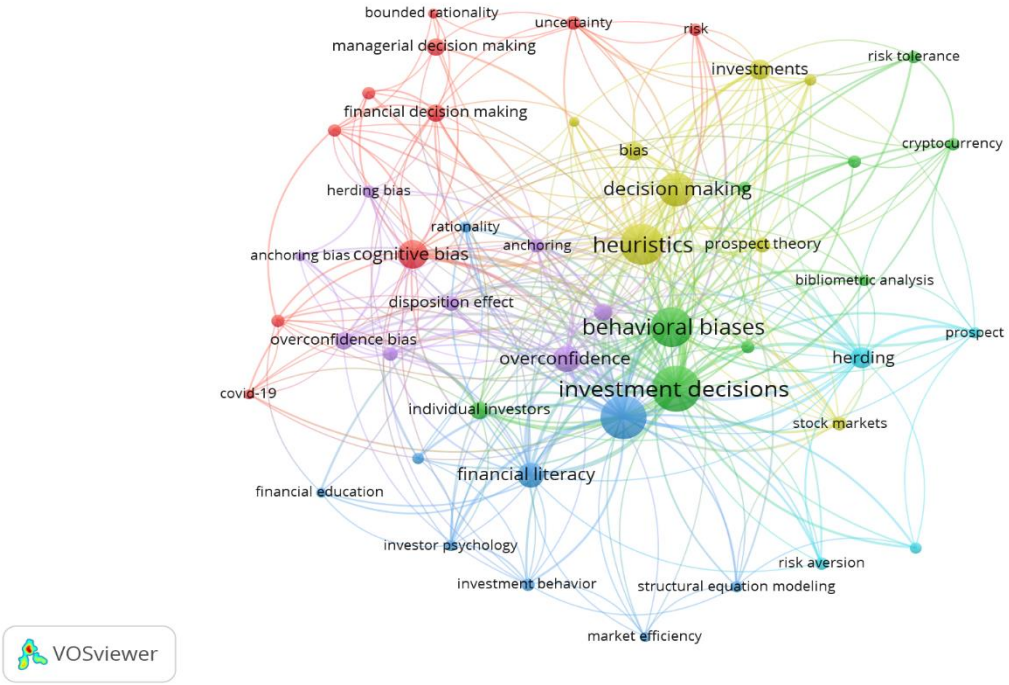
Figure 3: Top 10 author keywords by document frequency



Source: Generated by the author(s) using biblioMagika® (Ahmi, 2024).

The network visualization in Figure 4 provides a comprehensive overview of the intellectual structure, thematic clusters, and the temporal development of research in the field of neuro-accounting and financial decision-making. The network map clearly shows several interconnected clusters that form the conceptual backbone of the area. At the center of the network, key concepts such as “investment decisions", “heuristics”, and “behavioral biases” appear as large, interconnected nodes, underlining their central importance in the literature.

Figure 4: Network visualization of the co-occurrences analysis of authors' keywords



5. Conclusion and Recommendations

The bibliometric analysis of 482 documents published between 1980 and 2025 reveals that neuroaccounting, while still emerging, is gaining significant traction within the academic community. The identification of 46 citable years and a cumulative citation count of 14,522, averaging over 30 citations per document, has demonstrated a growing scholarly influence. Metrics such as the h-index (49), g-index (113), and m-index (1.065) further confirm that a substantial portion of the literature is widely recognized and consistently impactful. The annual citation rate of 322.71 citations per year underscores the increasing relevance of neuroeconomics and neuroaccounting in explaining real-world phenomena related to financial judgment and behavior. The dominance of peer-reviewed journal articles (77.80%) and the steady rise in publication volume, particularly from 2018 onward, reflect the academic maturity and momentum of the field. Notably, the surge in publications in 2023 and 2024, and the preliminary data for 2025, indicate sustained interest and expanding collaboration, as evidenced by the growing number of contributing authors. The citation lag observed in recent years is expected and does not detract from the field's upward trajectory.

Journal analysis confirms the multidisciplinary nature of neuroaccounting, with behavioral finance and management journals serving as primary publication venues. However, the most influential articles, such as those published in the Strategic Management Journal and Decision Support Systems, originate from decision science and strategy domains, suggesting that high-impact contributions often emerge from adjacent disciplines. This reinforces the idea that neuroaccounting is conceptually broad and methodologically diverse. The keyword analysis and network visualizations further illuminate the thematic structure of the field. Core concepts such as "investment decisions," "heuristics," and "behavioral biases" dominate the intellectual landscape, forming tightly interconnected clusters. Although "neuroaccounting" itself is not a dominant keyword, the findings support its conceptual relevance indirectly. The prevalence of constituent elements of cognitive biases, heuristics, behavioral finance, and investment decisions demonstrates that the field's foundations are already well-established, even if the term "neuroaccounting" is not yet mainstream.

The contribution of this study is to show that neuroaccounting bridges these established clusters and can be positioned as a unifying label that consolidates fragmented research streams. By mapping the intellectual structure, publication trends, and thematic priorities, this analysis provides a foundation for advancing neuroaccounting as both a theoretical framework and a practical research agenda. It highlights the field's potential to inform professional judgment, ethical behavior, and financial decision-making in increasingly complex and cognitively demanding environments.
To advance the discipline meaningfully, future research should prioritize empirical investigations within authentic accounting environments to enhance ecological validity. Stronger collaborations between neuroscientists and accounting scholars are essential to deepen methodological rigor and theoretical integration. Moreover, neuroaccounting frameworks should be extended to emerging domains such as ESG disclosures, AI-mediated financial decisions, and sustainability reporting. Amplifying contributions from developing nations will enrich the field with diverse perspectives and contextual relevance. Finally, integrating text mining and machine learning into bibliometric analyses can uncover latent patterns and accelerate knowledge synthesis, offering a more nuanced understanding of the field's evolution and future trajectory.

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