



Title: A Bibliometric Study of the Conceptual Science Mapping Structure of Brand Age in the Management Research Domain

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A Bibliometric Study of the Conceptual Science Mapping Structure of Brand Age in the Management Research Domain

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Abstract

Brand age has gained interest in recent years in management literature. The aim of this study is to explore the conceptual intelligence, structure, evolution, and emergence of brand age in management research literature. Brand age is an under-researched, nascent, and weakly consolidated concept, with few papers (44) in the Scopus database when researched with the exact term “brand age” dated 19 November 2025 at 10:10 pm. Relevant terms (heritage, nostalgia, aged brands etc) are searched to capture complete conceptual intelligence, relationships, key themes & research streams. The bibliometric approach and science mapping techniques are employed, and the data are extracted from the Scopus database. Results revealed that a total of 343 documents were found, and after inclusion and exclusion criteria, 156 are deemed usable for co-occurrence, citation, and co-citation analysis. The results revealed a surprising outcome that although the data time frame was selected from 1990 to 2026, prior to 2010, research streams were absent, indicating that research in this area only began in the last decade. The network, overlay, and density visualization are also utilized to visualize the density and keyword analysis clusters and their relationships. Research significance for academia is that it enriched the branding literature by identifying in a direction that will uncover the actual behaviors of consumers in this area. Furthermore, brand managers need this study to curate successful brands and to understand consumer preferences for successful brands.

Keywords: *Brand age, Bibliometric analysis, citation analysis, Co-citation analysis, Co-word analysis, Network analysis.*

1. Introduction:

Brand management concepts in research are heavily studied and relevant in today's business environment, as they create value and become a competitive advantage for firms, which creates value for consumers and firms (Chen & Song, 2019; Hamidizadeh & Mohammadnezhad Fadardi, 2019). The business environment becomes highly competitive, and then the organizations have to become increasingly customer-centric with enhanced service quality (Araújo, Brandão, & Shaikh, 2025), and product mix. Brand age is one factor that has an impact on products and services. brand age is defined as the number of years a brand has been incepted or it can be the perception about a brand's age (Zhang, Kashmiri, & Cinelli, 2019).

This current study will utilize bibliometric analysis, which will add to the uniqueness of the study. The use of quantitative and statistical analytical approaches to articles, such as journals,

and their corresponding citations to assess literature's success is known as bibliometric analysis (Estev~ao et al., 2017). The Bibliometric Analysis is employed to investigate academic productivity, published scientific literature, and to measure research activities from journals, titles, authors, addresses, abstracts, and references (Kumar, George, & PS, 2023). This paper utilizes bibliometric analysis as it helps to manage current studies in the selected discipline topic to provide a picture of the scope of study (Suban, Madhan, & Shagirbasha, 2023). This is relevant as brand age is a new research topic emerging in marketing and specifically branding literature, as only 44 documents were found on brand age when researched with the exact term "brand age" in all disciplines, dated 19 November 2025 at 10:10 pm, as shown in Figure 1. Although research reported in the area of brand age is growing with an upward trend to the best of the authors' knowledge, no study has used bibliometric and network analytic approaches to assess and evaluate the topic area of brand age.

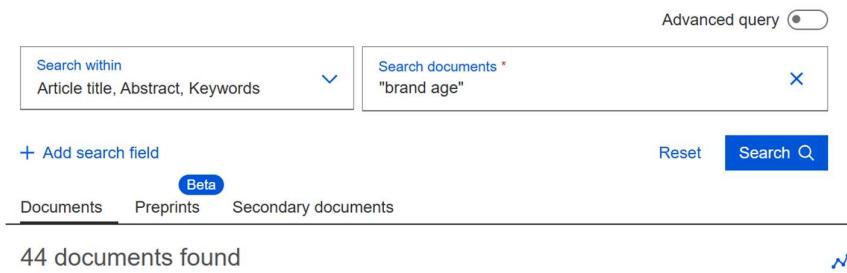


Figure 1. Brand age search results in Scopus

This study aims to conduct a bibliometric analysis of brand age to provide a comprehensive overview of its conceptual intelligence, structure, relationships, key research areas, contributions, evolution, and thematic trends. By analyzing research published over the last decade, 1990-2025, the developments in the brand age and branding fields. Bibliometric approaches are used to map and investigate various major published works in the field and provide an overview of the research in the discipline, and investigate the study scope (Donthu, Badhotiya, Kumar, Soni, & Pandey, 2021). This current bibliometric analysis identifies their connections, significant contributions, and direction that have shaped the current literature in both disciplines. Additionally, the in-depth research trajectory of brand age will facilitate uncovering the future directions and emerging areas of interest that can further enhance the effectiveness of brand age in academia and practice.

2. Literature Review

Brand age is a vital concept in marketing literature, and most studies are from the brand personality perspective in literature with scholars addressing its psychological underpinnings and marketing consequences. Brand age can be defined as a brand's youthfulness or maturity, which stands different from the brand's real chronological age with creating a different age point or identity from its real age. General research on the brand age concept is nascent and fragmented. The brand age is one of the important factors that constitute the marketing mix of the brand. The visual attributes, such as design elements such as logo concreteness, significantly influence perceived brand age. A mix of colors, shapes, and a stronger logo creates a perception of strength and longevity, and heritage in consumer judgment, which in turn affects attitudes depending on brand positioning strategies (Zheng & Zhu, 2026).

Other related concepts, such as vintage, brand heritage, the symbolic value embedded in the brand's identity signal quality and influence consumer perception over time, confirming the impact of temporal construct application extending beyond mere age to dimensions of legacy and continuity (Pecot, Merchant, Valette-Florence, & De Barnier, 2018). Other concepts, such as brand nostalgia related to brand age, are also studied and other disciplines such as health care (Liaquat et al., 2025), the concept is briefly touched on in light of trust and loyalty, which makes this relevant to marketing; however still there are still no studies specifically on brand age in healthcare. The literature review uncovered the scarcity of studies in the management domain.

A comprehensive literature search was conducted to collect relevant publications, which were very limited; mostly research on brand age was found relevant to nostalgia (Y. K. Kim & Yim, 2018; Youn & Dodoo, 2021), brand heritage (Pecot et al., 2018), brand personality (Hohenberger & Grohs, 2020), brand choice (Y. Kim & Srivastava, 2024; Lambert-Pandraud & Laurent, 2020) stereotypes (Huber, Meyer, Vogel, Weihrauch, & Hamprecht, 2013), brand evangelism (Sashittal, Jassawalla, & Sachdeva, 2023), therefore, the search strategy was intentionally broadened to capture conceptually related concepts to brand age. The research studies were retrieved from the Scopus database. The search was conducted using combinations of research keywords such as brand age, brand aging, and brand longevity.

3. Methodology:

The bibliometric approach and analysis are established as scientific specialties and are an integral part of research methodologies utilized for rigorous research in applied and scientific fields (Ellegaard & Wallin, 2015). As brand age is a new, emerging area, bibliometric analysis is utilized as it identifies the main intellectual structures, patterns, research mechanisms, such as main publications, journals, in the existing literature (Donthu, Reinartz, Kumar, & Patnaik, 2021). The bibliometric approach has proven to be an effective approach for identifying key research themes, tracking conceptual development, and forecasting future trends (Ellegaard & Wallin, 2015).

The data was retrieved from the Scopus database. The Scopus database is the largest and most comprehensive database of research publications (Mohit, Chaudhry, Kumar, & Arora, 2025). This current paper seeks to uncover the conceptual structure, relationships and evolution of the concept of brand age; therefore will employ a bibliometric analysis covering science mapping of brand age, covering keyword co-occurrence analysis, citation of documents, and author co-citations, in line with Chen and Song (2019). The software VOS viewer is utilized for data analysis. VOS viewer is a visualization tool utilized for network maps, denticity mapping, cooccurrence, and co-citations maps in bibliometric analysis (Mohit et al., 2025).

4. Post-Extraction Data Normalization and Data Analysis

All bibliometric data for the term brand age are retrieved without modifications. The bibliometric techniques are selected for the study as per the exploratory nature of this research. Co-word analysis helps to identify the core themes, citation analysis and co-authorship analysis are used to examine to detect active and current research streams, and visualization is used to examine the temporal evolution of themes. The maturity level of the research domain, limited research, and early level development of the 'brand age' domain call for co-word (Keyword Co-occurrence) analysis, citation analysis, co-author, and visualizations, suitable for mapping

emerging structures of the domain. The expected outcome was the identification of the conceptual foundations of brand age research.

5. Data Analysis

Bibliometric analysis is utilized to systematically examine the literature domain following a bibliometric analysis objective and data-driven perspective. For the bibliometric study, data were sourced from the Scopus database via the keywords. This study employed a systematic search protocol depicted in Figure 2, This framework helps to identify the research constituting research terms brand age, brand Nostalgia, brand heritage, or other search terms used in the Scopus search. This strategy ensured that the temporal dimensions of the brands were also addressed in the study.

To form a comprehensive data set for bibliometric analysis, EndNote software was used for creating and storing references. Data are cleaned by pre-processing the dataset to ensure accuracy and consistency, as the emerging nature of the brand age concept exhibits terminological fragmentation. The data cleaning procedures included removing duplicate records, standardizing author names and affiliations, and harmonizing key variants such as 'brand age' and 'brands age.' The time span for the Scopus database was selected from 1990 to 2026 to check its intellectual structure; however, the results came from 2010 to 2026, as no results were found before 2010, which shows the immense gap in the research and potential for research as evident in the overlay visualization in Figure No 5

5.1. Search Protocol

The search was initiated in the Scopus database. "The exact Boolean search string is "Title/Abstract/Keyword "(brand age OR brand aging OR brand longevity OR brand heritage OR brand history OR brand legacy OR brand nostalgia)" which are frequently used in research related to this field. Retrieved on 19 November 2025 at 10:10 pm. The flowchart outlines the systematic process of identifying, screening, inclusion, and exclusion criteria of this current research study and documents different points of the data set available for bibliometric analysis. The inclusion and exclusion criteria were predefined during the screening stage. The search terms extracted a total of 343 documents, then business management and accounting disciplines were selected, which excluded all other articles from other disciplines, screening a total of 207 research articles, then only articles were selected, excluding all other options such as conferences, books, etc. total number of articles are 166, book chapter 27, conference paper 5, review 4, book 2, short survey 1, letter 1, and conference review 1. This left the data with 166 documents. The publication stage was selected, which led to 161 documents, and finally, language restrictions were also applied, which led to 156 documents, excluding all articles in other languages. Finally, only English articles were selected; 156 documents were considered the final data.

The structured search strategy is used for bibliometric analysis to find the keywords from the Scopus database. Figure no 2 depicts the concise depiction of the methodological procedure. Bibliometric indicators were applied to evaluate bibliographic data, including the total number of authors and articles, citations, institutions, and countries. Bibliometric techniques, including citation analysis, co-citation analysis, bibliographic coupling, and co-word analysis, allow the mapping of academic developments across brand management. The citations and co-citation method in bibliometric analysis helped reveal the major keywords, influential journals, authors interdisciplinary or interconnected research concepts (Bu, Wang, Huang, Che, & Huang, 2018).

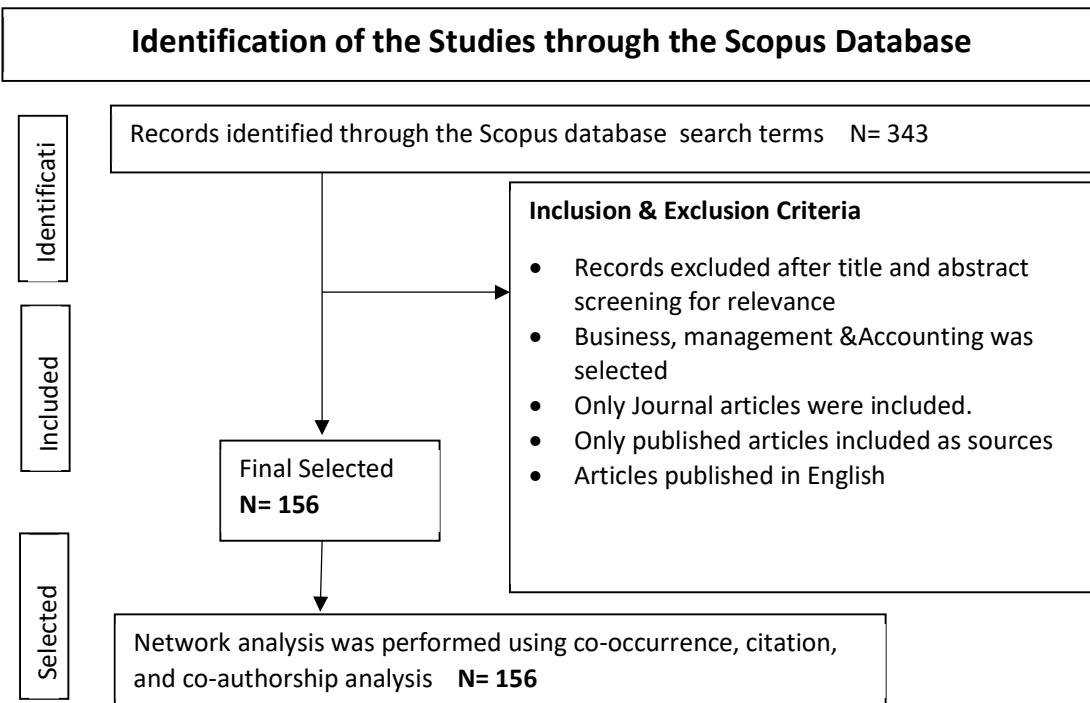


Figure 2. Study Design

6. Results and Analysis

6.1. Area of Research

The number of records (documents) reported in all research fields is presented in Table 1. Scopus database has total of 343 records of which Social Sciences (207), Arts and Humanities (109), Economics, Econometrics and Finance (68), Psychology (42), Computer Science (32), Decision Sciences (26), Engineering (18). Agricultural and Biological Sciences (14), Environmental Science(12), Medicine (9), Mathematics (6), Energy(5), Earth and Planetary Sciences (4),Materials Science (4), Immunology and Microbiology (3), Health Professions (2),Biochemistry, Genetics and Molecular Biology(2),Pharmacology, Toxicology and Pharmaceutics(2),Nursing (1) Neuroscience (1), Multidisciplinary (1), Chemistry(1), Chemical Engineering(1). The results of this research concluded that brand age is one of the emerging subjects of accounting, business, and management. It is also found that the majority of documents published on brand age in conjunction with different concepts searched in Scopus database (207) research documents dealt with “business, management, and accounting.”. It indicates that the research in this area is flowing towards accounting, business, and management.

6.2. Visualization of the Results :

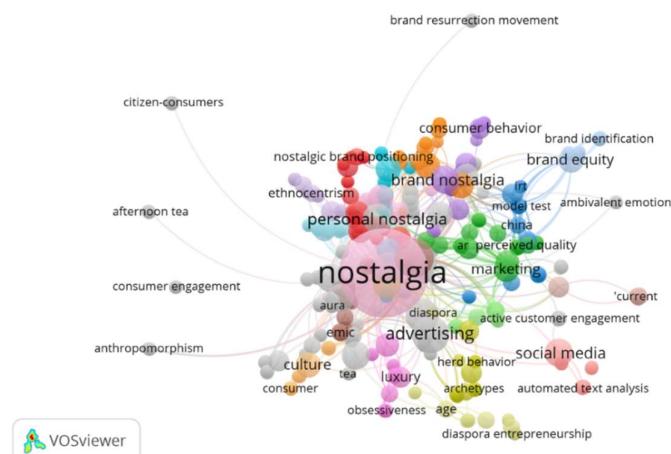
The results of bibliometric analysis are visualized with the help of network maps, overlay visualizations, and thematic clusters to enhance the interpretation and presentation of the results. The visualization illustrates relationships among key brand age-related concepts. This highlights emerging and established research in the domain visually, with visible contrast defining the structure, evolution, and temporal development of the brand age concept in the field and domain.

Table 1. Research Record Found in Management Sciences

S#	Discipline	Entries
1	Social Sciences	207
2	Arts and Humanities	109
3	Economics, Econometrics and Finance	68
4	Psychology	42
5	Computer Science	32
6	Decision Sciences	26
7	Engineering	18
8	Agricultural and Biological Sciences	14
9	Environmental Science	12
10	Medicine	9
11	Mathematics	6
12	Energy	5
13	Earth and Planetary Sciences	4
14	Materials Science	4
15	Immunology and Microbiology	3
16	Health Professions	2
17	Biochemistry, Genetics and Molecular Biology	2
18	Pharmacology, Toxicology and Pharmaceuticals	2
19	Nursing	1
20	Neuroscience	1
21	Multidisciplinary	1
22	Chemistry	1
23	Chemical Engineering	1

6.3. Co-Occurrence Analysis

The co-word analysis is represented in Figure no 3 is the network visual representation of the bibliometric analysis of major research concepts. The figure shows the dominant concepts such as Nostalgia , nostalgic brand positioning , personal nostalgia , brand nostalgia, brand equity , marketing , perceived quality , advertising , luxury , culture, and social media. The keywords are identified as nodes, and the dominant nodes are larger circles and brighter colors. These concepts further loop to brand resurrection (rejuvenation), consumer engagement, citizen consumers, and their relationships, identified in the field of brand age and Biomedical themes age. However, it is evident from the literature that there are no connections between all other concepts in other disciplines and major theses are in management sciences, which confirms that there is a research and literature gap in brand age literature regarding other.

**Figure 3. Co-word Network Analysis Visualization**

The visualization keyword density visualization is generated utilizing the VOS viewer of dominant research themes. the higher word frequency and higher thematic concentration are represented by dominant circles and brighter-colored terms. The analysis of the keyword density visualization reveals a strong presence of management terms and a weak representation of biomedical or other discipline keywords. The largest terms, like Nostalgia, nostalgic brand positioning, personal nostalgia, brand nostalgia, brand equity, marketing, perceived quality, advertising, luxury, culture, and social media, appear dominant than biomedical and other terms. The results show a weaker and lower integration density, which points towards the marginal existing literature in other disciplines. The frequency of occurrence of the keyword is 1(Table 1), as this points to the need for research. This revelation creates a gap for further research in this area.

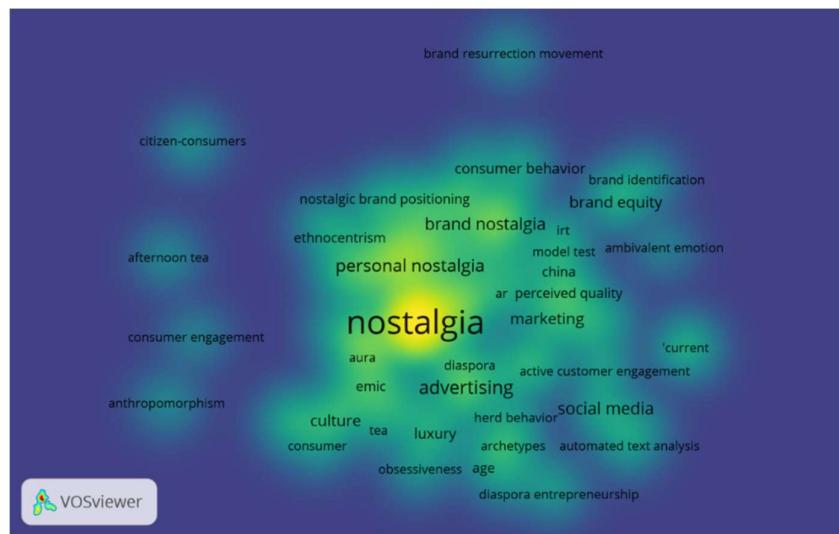


Figure 4. Co-Word Density Visualization

6.4. Citation Analysis

Citation analysis is a basic technique for science mapping that operates on the assumption that citations reflect intellectual linkages between publications that are formed when one publication cites the other (Appio, Cesaroni, & Di Minin, 2014). In this analysis, the impact of a publication is determined by the number of citations that it receives. Fritz 2017, Gladden 2002, Cervellon 2012, Phau 2011, kessous 2008, and Müehling 2004 are identified as the most cited authors in the subject. The same can be identified in the network visualization as Figure no. 6. and figure no. 7 the density visualization. The analysis enables the most influential publications in a research field to be ascertained. And the aforementioned authors are identified as most influential, as the size of circles and colors also seeks to present their dominance in the literature.

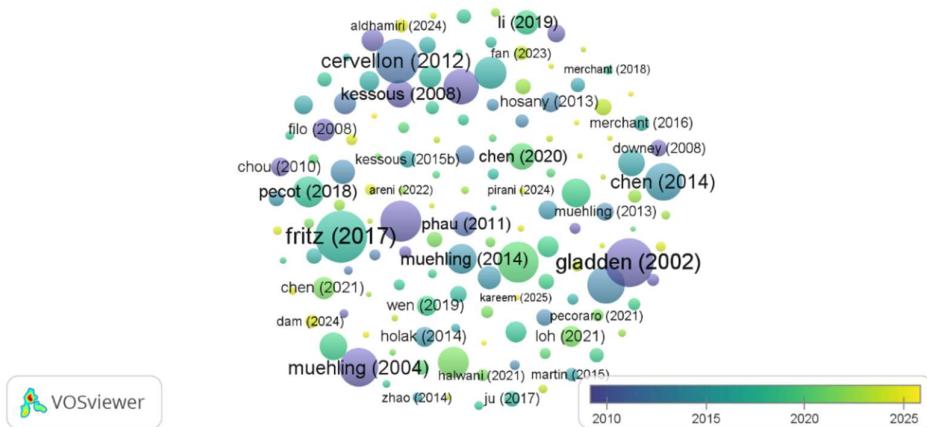


Figure 5. Citation Analysis Overlay Visualization

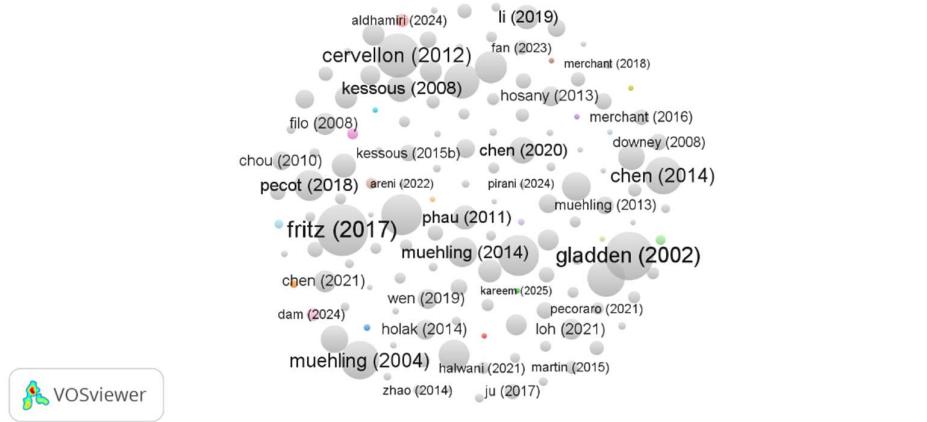


Figure 6. Citation Analysis Network Visualization

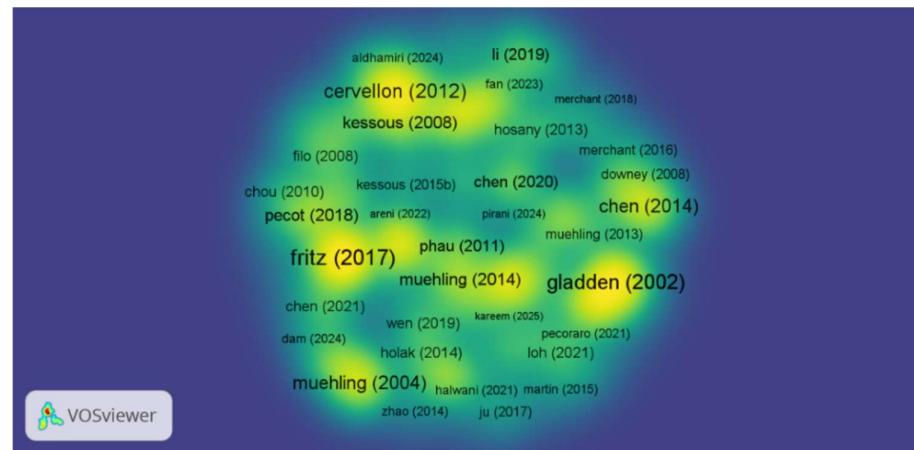


Figure 7. Citation Analysis: Density Visualization

6.5. Co-Author Analysis

To examine the conceptual structure, the keyword co-author analysis was carried out from the data retrieved from the Scopus database. The co-author technique was utilized, and “All keyword data” were used as the unit of analysis. Full counting was used as the counting method, and a minimum occurrence threshold was utilized for the analytical relevance. The low thresholds were used as the concept is new. The density visualization was created for the representation of dominant research streams. The color criterion is also explained for the understanding of dominant research strains indication. The larger circles and brighter colors show the intensity of keywords and thematic concentration, allowing the identification of core and peripheral research areas. The result clearly identified in the network analysis visualization, the United States as the most dominant country authors working with it authors in Canada co-co-authoring with researchers in Norway, Denmark, while authors in Sweden and South Africa did work in association. This shows the dearth of literature on the topic in almost all countries and domains.



Figure 8. Co-authorship Countries Analysis

Using the VOS viewer, keyword co-authorship networks density visualization as shown in figure 9 for country analysis were generated with low thresholds as one publication per unit to identify the structure of the emerging concept in its domain. Same can be visualize in the density visualization figure (Figure 9) which clearly shows the clusters and the most dominant is United States. The results of this current study are contextualized and based within branding theory, emphasizing the role of United states , Canada , Sweden , Denmark and south African authors publications in the management domain relevant to brand age. The results clarified the conceptual positioning of the brand age, identified research gaps and future direction, highlighting the emerging importance of temporal concepts in marketing and branding literature. This result shows that the brand age itself is a less-researched area in its domain as well. The manuscript of this study was prepared using MS Word following the journal guidelines.

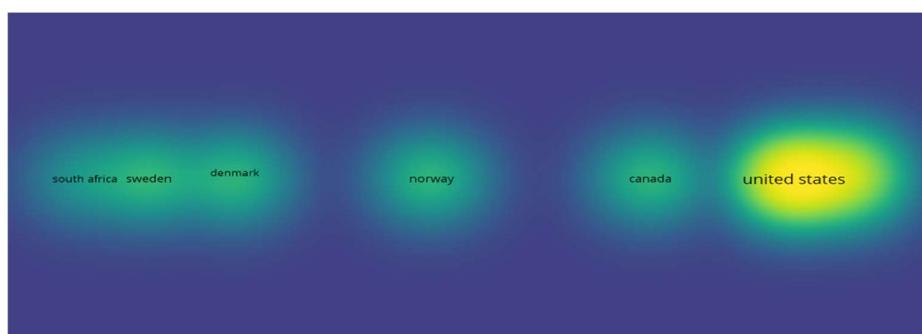


Figure 9. Density Country Analysis

7. Limitations of the Study

The limitations of this current research are utilized to find relevant themes and concepts; however, these words may not encompass all relevant literature. The Scopus database was used to find the relevant literature. Scopus was utilized because of the lack of official access to other academic databases. The final search for this study was conducted from 1990– 2025 and the results indicated research papers from 2010. Literature prior to this time could exist in other databases. Figure 1 illustrates a concise overview of the methodological procedure. The rationale behind the inclusion of the timeline from 2010 to 2025 is to ensure contemporary literature streams, connections, and issues in the domain.

8. Implications of the Study:

The theoretical and practical implications of the study are as under:

- The conceptual identification of the intelligence structure of brand age and relevant concepts enriches the theoretical literature of branding, brand age, and other relevant concepts in Management Sciences and other disciplines.
- This study has confirmed the brand age concept as an emerging construct for further research in the area. The fragmented and peripheral positioning of brand age keywords indicates the need for strong theoretical research in established branding frameworks.
- The limited co-occurrence of brand age with core branding theories, and the inconsistent usage of brand age in other branding theoretical frameworks, identified the need for clearer conceptual grounding and definitions for distinguishing brand age from relevant concepts.
- Bibliometric analysis should be complemented with experimental survey-based and longitudinal studies to understand and practically how consumers perceive and respond to brand age cues regarding products and services.
- The practical implications are for the manager and policymakers that understanding brand age can educate them to make informed decisions and they can leverage brand age to communicate trust and credibility in markets where longevity is associate with credibility.

9. Conclusion and Recommendations

The conclusion of the study points to the immense gap in the literature and potential in other disciplines to study this relatively new concept in branding literature. the gap with 44 research articles is also evident in management sciences itself in such an immense database as Scopus. Other disciplines are also relevant to studying its impact, such as healthcare, and studies can be investigated in terms of the brand value context. Other databases and other bibliometric techniques, such as bibliometric coupling, can be added for more rigorous analysis. Therefore, it can be concluded that there is huge potential for research, confirmed by this current research in this area in various domains.

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