Visual and Thematic Analysis of Brand Equity Research through Bibliometric Study

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Article Info

ABSTRACT

This study conducts a comprehensive visual and thematic analysis of brand equity research using bibliometric techniques through VOSviewer. Drawing on data retrieved from the Scopus database, the analysis examines publication trends, influential authors, countries, and thematic clusters from the earliest available year to 2025. Co-citation, co-authorship, and keyword co-occurrence maps reveal that foundational constructs (such as brand loyalty, brand awareness, perceived quality, and purchase intention) remain central to the field, while emerging topics like green brand equity, social media marketing, and brand experience are gaining prominence. Country collaboration analysis highlights the United States as the leading hub of global research partnerships, bridging contributions from developed and emerging economies. Overlay visualization demonstrates a thematic evolution from traditional marketing strategy toward sustainability and digital branding, whereas density mapping underscores the dominance of consumer-based brand equity frameworks alongside expanding research into technology-driven and socially responsible branding. The findings offer practical guidance for brand managers and policymakers, while contributing to the theoretical understanding of how brand equity research has evolved and where future opportunities lie.

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1. INTRODUCTION

Brand equity has emerged as one of the most pivotal constructs in marketing research, serving as a key determinant of consumer preference, loyalty, and willingness to pay a price premium. Originally conceptualized by [1] and [2], brand equity encapsulates the value a brand adds to a product or service beyond its functional attributes [3]–[5]. Over the past three decades, the construct has evolved from a primarily consumer-perception-based measurement to a multidimensional framework that integrates financial, strategic, and psychological perspectives [6], [7]. This evolution has not only influenced academic discourse but has also shaped corporate branding strategies in increasingly competitive global markets [8], [9].

The proliferation of brand equity research across various industries—ranging from fast-moving consumer goods and luxury brands to services and digital platforms—has

resulted in a rich but fragmented body of literature [8], [9]. Studies have explored diverse themes such as consumer-based brand equity (CBBE), the impact of brand equity on firm performance, and its mediating role in marketing communication effectiveness [10]–[12]. This expansion has been further fueled by the integration of digital marketing, social media analytics, and cross-cultural branding studies, which have introduced new dimensions and measurement approaches to the concept.

Recent advances in bibliometric tool, notably VOSviewer, have enhanced the capability to perform visual and thematic mapping of research fields. Such tools allow for the identification of research hotspots, emerging themes, and declining areas of interest in brand equity studies. By leveraging these methods, scholars can uncover both the foundational literature that underpins the field and the evolving research frontiers that indicate future directions. This is particularly relevant for practitioners and academics aiming to align brand management strategies with empirical evidence and emerging consumer behaviors.

Despite the growing number of bibliometric studies in marketing and branding, there remains a gap in the application of integrated **visual and thematic analysis** specifically focused on brand equity. While some prior works have examined subsets of branding literature, few have provided a comprehensive mapping that combines quantitative bibliometric indicators with qualitative thematic interpretation. Addressing this gap not only enriches theoretical understanding but also offers actionable insights for brand managers, policy makers, and future researchers.

The existing body of brand equity literature is vast, diverse, and fragmented across disciplines, industries, and cultural contexts. Although numerous studies have contributed valuable insights, there is a lack of integrative bibliometric analyses that visually and thematically map the field's intellectual structure and thematic evolution. Without such a systematic and visualized synthesis, it becomes challenging for scholars and

practitioners to navigate the research landscape, identify influential works, and anticipate emerging trends in brand equity scholarship. This study aims to conduct a comprehensive **visual and thematic bibliometric analysis** of brand equity research to identify key publication trends, influential authors and sources, thematic clusters, and the evolution of research topics over time.

2. METHODS

This study adopts a quantitative bibliometric approach complemented by qualitative thematic analysis to map and interpret the intellectual structure and thematic evolution of brand equity research. The bibliometric method was selected due to its ability to systematically quantify and visualize patterns within large bodies of academic literature. The Scopus database was chosen as the primary data source given its comprehensive coverage of peer-reviewed journals in business, management, and marketing, as well as its compatibility with bibliometric software. The search strategy used the keyword string *"brand equity"* in article titles, abstracts, and keywords, covering the period from the earliest available publication until 2025. Only journal articles, conference papers, and reviews written in English were included to ensure academic rigor and comparability.

The initial search retrieved all relevant records, which were then screened to remove duplicates, irrelevant topics, and incomplete bibliographic information. The final dataset was exported in BibTeX and CSV formats containing key bibliometric fields such as authors, titles, abstracts, keywords, sources, affiliations, and citations. Data cleaning was conducted to standardize author names, unify keyword variants (e.g., "CBBE" and "consumer-based brand equity"), and correct inconsistencies in source titles. This process ensured the accuracy of subsequent analyses and minimized bias due to data entry variations. The refined dataset was

then used as the input for bibliometric and visualization software.

The cleaned dataset was analyzed exclusively using **VOSviewer**, a software tool designed for constructing and visualizing bibliometric networks. Several analyses were performed, including **co-authorship analysis** (to identify collaboration networks among authors and countries), **co-occurrence analysis** (to map the most frequently used keywords and thematic clusters), and **co-citation analysis** (to identify influential publications and intellectual structures). The software's network visualization, overlay visualization, and density visualization features were utilized to present the results in an interpretable form.

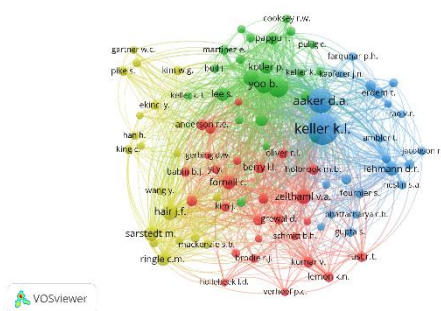## 3. RESULTS AND DISCUSSION

Co-Authorship Analysis

Figure 1. Author Visualization
Source: Data Analysis

Figure 1 illustrates the co-citation network of influential authors in brand equity research, revealing four distinct thematic clusters represented by different colors. The blue cluster, dominated by *Aaker D.A.* and *Keller K.L.*, reflects the foundational conceptualization of brand equity, particularly consumer-based brand equity (CBBE) models and theoretical frameworks. The green cluster, with key figures like *Yoo B.* and *Kotler P.*, focuses on empirical measurement scales, brand loyalty, and the integration of marketing strategy with brand value creation. The red cluster, led by authors such as *Zeithaml V.A.* and *Fornell C.*, centers on service quality, customer satisfaction, and the mediating role of brand equity in service

marketing contexts. The yellow cluster, featuring scholars like *Hair J.F.* and *Sarstedt M.*, represents methodological contributions, especially in structural equation modeling (SEM) and advanced quantitative techniques applied in brand equity research.
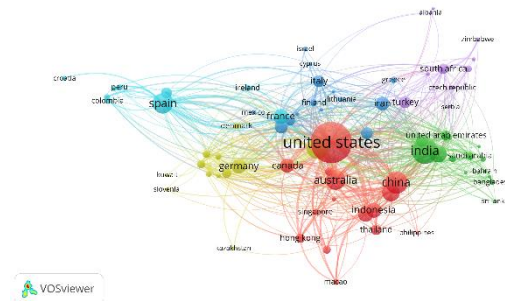

Figure 2. Country Visualization
Source: Data Analysis

Figure 2 presents the country co-authorship map in brand equity research, highlighting the global collaboration landscape. The United States occupies the most central and dominant position, serving as the primary hub for international research partnerships, with strong linkages to countries across all clusters. The red cluster, which includes *China*, *Indonesia*, *Australia*, and several Asian countries, represents a vibrant and growing research community focusing on regional brand equity applications and emerging market contexts. The green cluster, led by *India* and linked to Gulf countries like *United Arab Emirates*, shows a concentration of collaborations in developing economies with increasing brand strategy adoption. The yellow cluster, anchored by *Germany*, emphasizes European research contributions with methodological rigor and cross-national brand studies. The blue cluster, centered on *France* and *United Kingdom*, reflects collaborations within Europe and with North America, often addressing cross-cultural brand equity perspectives. The light blue cluster, dominated by *Spain* and connected to *Latin American* countries such as *Peru* and *Colombia*, indicates regional brand research expansion in Spanish-speaking contexts.
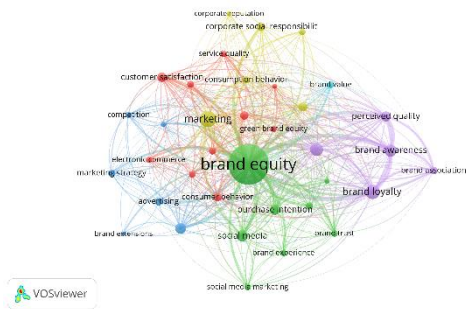
Co-Occurrence Analysis

Figure 3. Network Visualization
Source: Data Analysis

Figure 3 depicts the **keyword co-occurrence map** for brand equity research, showing how thematic concepts interconnect within the scholarly literature. The largest node, *brand equity*, is positioned at the center, indicating its dominant role as the core research focus that bridges multiple thematic clusters. Surrounding this central term are distinct but interconnected keyword groups that reveal the major conceptual areas in the field. The size of the nodes reflects the frequency of keyword usage, while the thickness of the connecting lines indicates the strength of their co-occurrence in published works. This visualization reveals that brand equity research is highly interdisciplinary, combining perspectives from marketing, consumer behavior, corporate strategy, and digital branding.

The **green cluster** centers on themes closely tied to *brand loyalty*, *brand awareness*, *brand association*, *perceived quality*, and *brand value*. This cluster represents the **consumer-based brand equity (CBBE)** framework, which has been foundational in understanding how brand equity is built through consumer perceptions and attitudes. Keywords such as *brand trust*, *brand experience*, and *purchase intention* within this cluster highlight how scholars link brand equity to behavioral outcomes and customer relationship management. The interconnections also suggest that studies in this cluster frequently examine the mediating role of brand equity in influencing consumer decision-making.

The **red cluster** revolves around *marketing, customer satisfaction, consumption behavior,* and *corporate social responsibility*. This group signifies research that integrates brand equity with broader **marketing strategy and corporate ethics** perspectives. Here, brand equity is often studied as both a driver and an outcome of strategic marketing initiatives, with *service quality* and *corporate reputation* emerging as crucial factors. The presence of CSR in this cluster suggests a growing scholarly interest in how socially responsible business practices enhance brand equity by fostering positive consumer perceptions.

The **blue cluster** focuses on *electronic commerce, marketing strategy, brand extensions,* and *consumer involvement*, indicating the application of brand equity concepts in **digital and strategic brand management contexts**. Research in this area often addresses how e-commerce platforms and digital marketing tools influence brand equity creation and maintenance. Keywords like *consumer involvement* imply that interactive and participatory consumer engagement is seen as a vital mechanism for strengthening brand equity in digital environments.

The yellow cluster includes terms like *social media marketing, green brand equity,* and *brand experience*, reflecting emerging research trends that intersect branding with sustainability and digital communication platforms. The co-occurrence of *green brand equity* suggests that scholars are increasingly examining how environmental consciousness and sustainable practices contribute to brand value. Similarly, the prominence of social media marketing in this cluster signals the importance of online platforms in building and reinforcing brand equity in contemporary markets.
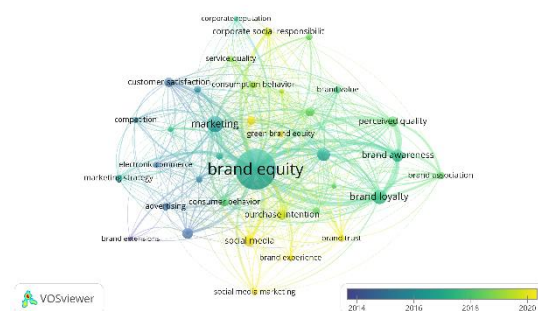

Figure 4. Overlay Visualziation
Source: Data Analysis

Figure 4 illustrates the temporal evolution of keywords in brand equity research, where colors represent the average publication year in which each term appears. Older topics (in blue) such as *marketing strategy*, *brand extensions*, *consumer involvement*, and *corporate reputation* are predominantly associated with the mid-2010s, reflecting the foundational and early expansion phases of brand equity studies. These themes often focused on traditional marketing approaches, brand positioning, and the conceptual development of consumer-based brand equity frameworks.

Moving toward the green zone (representing around 2017–2019), research emphasis shifted toward integrating brand equity with topics such as *brand loyalty*, *purchase intention*, *service quality*, and *corporate social responsibility*. This period marks a transition in the literature toward applied brand equity studies that connect consumer perceptions with strategic business outcomes, highlighting the growing role of ethical practices, sustainability, and service excellence in strengthening brand value.

The **yellow-highlighted themes** (2020 onward) indicate the most recent and emerging research directions, including *social media marketing*, *green brand equity*, *brand experience*, and *social media*. These topics reflect the contemporary focus on digital branding strategies, sustainability-driven branding, and immersive consumer experiences as primary drivers of brand equity in the modern marketplace. The prominence of these recent terms suggests that future research will continue to explore how technological innovation, environmental responsibility, and interactive consumer engagement shape the evolution of brand equity.
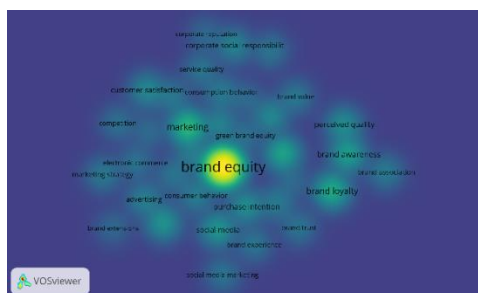

Figure 5. Density Visualization
Source: Data Analysis

Figure 5 shows the **relative concentration and prominence of keywords** in brand equity research. The most intense yellow area, centered on *brand equity*, indicates that this keyword appears most frequently and serves as the focal point connecting various thematic areas. Surrounding it, terms like *brand loyalty*, *marketing*, *purchase intention*, *brand awareness*, and *consumer behavior* are displayed in lighter green shades, signifying high but slightly lower frequency of occurrence compared to the core term. These keywords represent the primary conceptual dimensions through which brand equity has been explored, often forming the backbone of empirical and theoretical studies in the field. In contrast, the outer areas with blue and green shades, such as *social media marketing*, *green brand equity*, *corporate social responsibility*, and *brand extensions*, denote less frequent but increasingly relevant research topics. Their positioning on the map, still closely connected to the core term, suggests they are emerging or specialized themes within the brand equity domain.

Citation Analysis
Practical Implication

The findings of this study offer valuable insights for brand managers, marketing strategists, and policymakers. The identification of core and emerging themes (such as *brand loyalty*, *purchase intention*, *green brand equity*, and *social media marketing*) provides a strategic roadmap for aligning brand-building efforts with current market trends. Businesses can leverage the strong link between digital engagement and brand equity by integrating social media strategies that foster brand trust and consumer participation. Furthermore, the growing attention to sustainability-related terms indicates that incorporating environmentally responsible practices can significantly enhance brand equity, especially among eco-conscious consumers. For policymakers, understanding the global collaboration patterns in brand equity research can inform cross-country branding initiatives, tourism promotion, and

the development of industry-specific branding guidelines.

Theoretical Contribution

This study enriches the brand equity literature by providing a **comprehensive bibliometric mapping** that combines co-citation, co-authorship, keyword co-occurrence, overlay, and density analyses using VOSviewer. The visual and thematic synthesis highlights the intellectual foundations of brand equity research, anchored by seminal works of Aaker and Keller, while revealing thematic transitions from traditional marketing strategy toward digital, experiential, and sustainability-driven branding. The study also advances theoretical discourse by demonstrating how consumer-based brand equity (CBBE) constructs remain central, yet are increasingly integrated with emerging domains such as green marketing and social media branding. By identifying research clusters and temporal shifts, the study contributes to theory-building by showing how the field's conceptual

4. CONCLUSION

This study provides a comprehensive visual and thematic mapping of brand equity research using bibliometric analysis exclusively through VOSviewer, offering both a structural overview and temporal insights into the field's development. The results reveal that foundational concepts (such as brand loyalty, brand awareness, perceived quality, and purchase intention) remain central, while newer themes like green brand equity, social media marketing, and brand experience are emerging as influential research directions. The co-authorship and co-

boundaries have expanded and where future scholarly inquiries are likely to emerge.

Limitation

Despite its contributions, this study has several limitations. First, the dataset was restricted to the **Scopus database**, which, although comprehensive, may exclude relevant publications indexed in other repositories such as Web of Science or Google Scholar. Second, the analysis relied solely on **VOSviewer** for bibliometric mapping; while effective for visualization, it does not capture in-depth content analysis or nuanced theoretical debates embedded within each publication. Third, the inclusion criteria limited the scope to English-language publications, potentially overlooking important contributions from non-English literature. Finally, as bibliometric analysis is inherently descriptive, the study does not evaluate the empirical quality or methodological rigor of the works analyzed, which may influence the interpretation of thematic significance.

citation networks highlight strong intellectual integration, with the United States serving as a primary hub of global collaboration. Overlay and density visualizations further demonstrate the field's evolution from traditional marketing strategy toward digital engagement and sustainability-focused branding. By synthesizing these patterns, the study not only consolidates the intellectual foundations of brand equity but also points to promising areas for future inquiry, particularly in leveraging technology, sustainability, and cross-cultural branding to enhance both academic understanding and practical brand management strategies.

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