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ARTIFICIAL INTELLIGENCE APPLICATIONS IN BRAND MANAGEMENT

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Purpose: This research explores the transformative role of Artificial Intelligence (AI) and Machine Learning (ML) in brand management. It aims to understand how AI technologies can optimize brand awareness, enhance personalized communication, and improve brand equity measurement, thereby redefining brand management strategies in the digital era.
Design/methodology/approach: A systematic literature review was conducted, analyzing research studies published between 2014 and 2024. The methodology focused on articles that delve into the integration of AI and ML within brand management contexts. This approach was chosen to consolidate and synthesize a broad spectrum of findings on AI's impact on brand management practices.
Findings: The review identified significant enhancements in brand management facilitated by AI, particularly in consumer engagement and customization of consumer interactions through data-driven insights. AI's capability to analyze big data has enabled more precise consumer segmentation and targeting, thereby influencing brand loyalty and overall brand equity positively.
Research limitations/implications: The primary limitation of this study is its reliance on data from articles indexed only in Scopus, potentially omitting relevant studies published in other languages or databases. Future research should expand the scope to include these sources and explore empirical validations of the proposed theoretical impacts of AI on brand management.
Practical implications: This research highlights the practical applications of AI in improving brand management strategies, offering insights into effective AI integration into marketing practices. Businesses are encouraged to adopt AI-driven tools for better market segmentation, consumer behavior predictions, and enhanced customer relationship management.
Social implications: The findings could influence public attitudes towards brand interaction by fostering greater acceptance of AI in consumer relations. The research supports enhanced corporate social responsibility through AI's ability to provide more targeted and meaningful consumer interactions.
Originality/value: This paper contributes to the academic and practical understanding of AI's role in brand management by synthesizing existing research and identifying future research directions. It is valuable to academicians, marketing professionals, and policymakers interested in the implications of AI technology in brand strategies.

Keywords: Brand Management, Artificial Intelligence, Machine Learning, Consumer Engagement, Marketing Strategies.
Category of the paper: Literature review.

1. Introduction

In an era dominated by digital transformation, brand management is experiencing a profound shift fueled by the integration of advanced technologies such as Artificial Intelligence (AI). Within this broad domain, Machine Learning (ML) emerges as a pivotal tool, significantly influencing strategic marketing and brand equity development. As brands strive for attention in an increasingly crowded market, the adept utilization of AI, particularly through ML applications, in crafting personalized, engaging consumer experiences has transitioned from a competitive advantage to a fundamental necessity.

This paper seeks to systematically explore and synthesize the expanding landscape of AI, with a special focus on ML, in brand management. By harnessing various AI applications, from predictive analytics to consumer sentiment analysis through ML, companies are reshaping how brands communicate, understand, and connect with their customers. This review delves into how these technologies are integrated into brand strategies to enhance brand equity and manage brand identity in a dynamic market environment.

This research aims to provide a comprehensive overview of how AI, particularly its ML subset, is being employed to redefine the paradigms of brand management. Through a systematic review of literature published between 2014 and 2024, this paper identifies key trends, assesses the effectiveness of different AI-driven strategies, and evaluates the theoretical and practical implications of AI in brand management.

2. Background study

According to the American Marketing Association in 2010, a brand is defined as any name, symbol, design, or other characteristic that distinguishes a company's goods or services from those of others. Brand management is the process of developing, maintaining, and enhancing a brand to ensure it remains relevant, competitive, and valuable in the marketplace.

The purpose of brand management is to build brands that create market value (Chernev, 2020). It involves strategies for positioning the brand, targeting the right audience, managing the company’s reputation, and aligning all marketing communications to emphasize the brand's identity and values. Effective brand management aims to build customer commitment to a brand by creating positive brand perceptions (Sugiarto, Suryanadi, 2019), establishing brand equity,

and, thereby, driving the success of a brand's products or services in its target markets. This process encompasses a variety of objectives, challenges, and strategic activities (Figure 1).

Figure 1. Objectives, challenges, and strategic activities in brand management.
Source: Own study.

Brand management is a multifaceted discipline that orchestrates a company's product design, pricing strategies, and promotional efforts to foster customer engagement. It also intertwines with supply chain decisions (Nehzat, 2015).

This multifaceted view of brand management makes the integration of diverse data sources crucial for crafting targeted strategies that resonate with consumers. Before the digital era, these efforts were largely guided by market research, consumer feedback, and competitive analysis, often relying on slow, manual processes. This required comprehensive quantitative and qualitative reasoning to evaluate potential marketing actions and their impacts (Dutta, Wierenga, 1992).

However, the rapid advancement of digital technologies, particularly Artificial Intelligence (AI) and Machine Learning (ML), has transformed the landscape of brand management. With big data technologies, AI allows for aggregating and analyzing vast amounts of data from social media, customer transactions, and market trends (Jelonek, 2017; Liu, Gao, 2021; Pawełoszek, Korczak, 2023).

A holistic view of customer interaction and multimodal marketing opens new perspectives on data gathering and processing. The complexity and volume of data necessitate machine learning techniques to process and interpret this information efficiently. This enables brands to anticipate market dynamics and effectively tailor their marketing efforts to meet evolving consumer preferences. For example, ML algorithms can analyze vast amounts of consumer data to identify patterns and predict consumer behavior with high accuracy (Badea, 2024), facilitating more targeted marketing strategies. Thus, machine learning is an indispensable tool

in the modern brand manager's arsenal, driving precision and innovation in brand strategy development.

AI technologies, such as predictive analytics, natural language processing and automated content generation, support managers in managing (Jelonek et al., 2020) and allow brand managers to engage consumers more dynamically and personally.

It is worth noticing that AI's integration into brand management is not without its challenges. Issues such as data privacy, algorithmic bias, and the need for substantial training data are significant concerns that must be addressed. Moreover, the rapid advancement of AI-driven image and video creation technologies has facilitated the emergence of virtual influencers, highly realistic characters crafted for marketing purposes. These digital entities are stirring significant public interest and emotional responses among consumers, raising discussions about authenticity, consumer trust, and the ethical implications of AI in human-like roles (Gutuleac, Baima, Rizzo, 2023).

Despite these challenges, the potential of AI to revolutionize brand management is undeniable, offering opportunities to enhance brand loyalty, personalize customer interactions, and streamline marketing operations on a scale previously unattainable.

Despite the growing interest in the intersection of artificial intelligence and brand management, focused studies exploring this specific area remain relatively scarce. Among the limited research that does address exactly this topic, several key studies stand out. Varsha et al (2019) present a comprehensive study exploring publications from the years 1982-2019. Many studies discuss AI applications in marketing, which is a broader domain than brand management. Nwachukwu and Affen (2023) comprehensively discuss AI marketing tools and methods like data models, algorithms, and machine learning, emphasizing their necessity for effective marketing management. The study is country-specific and limited to the Nigerian market. Similarly, Haleem et al. (2022), in their extensive literature review, identified several segments for AI applications in marketing. However, brand management was not mentioned as one of them. De Mauro, A., Sestino, A. Bacconi, (2022) propose a taxonomy of ML use cases in marketing based on a systematic review of academic and business literature. The taxonomy can be a good starting point for exploring AI and machine learning applications specifically in the domain of brand management.

Given the rapid advancements in AI and the proliferation of new tools and applications, there is a need to provide a contemporary view of how AI is shaping brand management and identify areas where further research and innovations are possible.

3. Methodology

For the purposes of this study, the authors decided to select publications indexed in the Scopus database. It is one of the largest databases of abstracts and citations, with a wide global and regional coverage of scientific journals, conference proceedings, and books. The study focuses on the research publications that describe artificial intelligence applications in brand management. The inclusion criteria for the present systematic review include:

- Scholarly articles and reviews.
- Quantitative and qualitative research studies.
- Research associated with AI and machine learning applications in brand management.

The application of AI in brand management intersects with various domains such as psychology, sociology, economics, and computer science, making it a rich area for academic exploration and interdisciplinary research. Therefore, we didn't limit the search query to specific domains.

This study was conducted using a structured research procedure designed to systematically identify, analyze, and synthesize relevant literature on AI applications in brand management. The following steps outline the methodological approach taken:

1. Identification of Topics and Subtopics.
2. Formulating Scopus Query Develop a query using keywords and parameters that target the research scope.
3. The study's systematic search comprises research and review papers published from 2014 to April 2024, fulfilling the criteria specified in the search query:
   (TITLE-ABS-KEY ("artificial intelligence" OR "AI" OR "machine learning" OR "ML") AND TITLE-ABS-KEY ("brand management" OR "branding" OR "brand equity" OR "brand strategy")) AND PUBYEAR > 2013 AND PUBYEAR < 2025 AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "re"))
4. Exporting Papers from Scopus (150 found).
5. Abstracts Analysis to assess relevance to the topics and subtopics. The abstract were classified as: highly relevant (66), moderately relevant (27), somehow relevant (12), and not relevant (45).
6. Filtering Out Irrelevant Studies (45) criteria or relevance to the core topics.
7. Identifying Thematic Categories through semantic analysis.
8. Grouping the remaining 105 papers into thematic categories based on their focus and findings.
9. Description of main thematic categories: areas of AI applications in brand management.
10. Summarizing key findings from the categorized papers to highlight trends, gaps, and insights.

4. Synthesis of Literature

The study utilized a qualitative content analysis approach to extract and analyze themes from the corpus 105 abstracts related to branding and marketing strategies. The corpus included diverse topics ranging from artificial intelligence in branding to consumer perception and digital marketing strategies.

The thematic Categorization was conducted using advanced natural language processing techniques offered by the Semantic Topic Modeller tool (Hostler, 2024), which enabled the identification of key themes, subtopics (Figure 2), from the corpus of 105 abstracts.

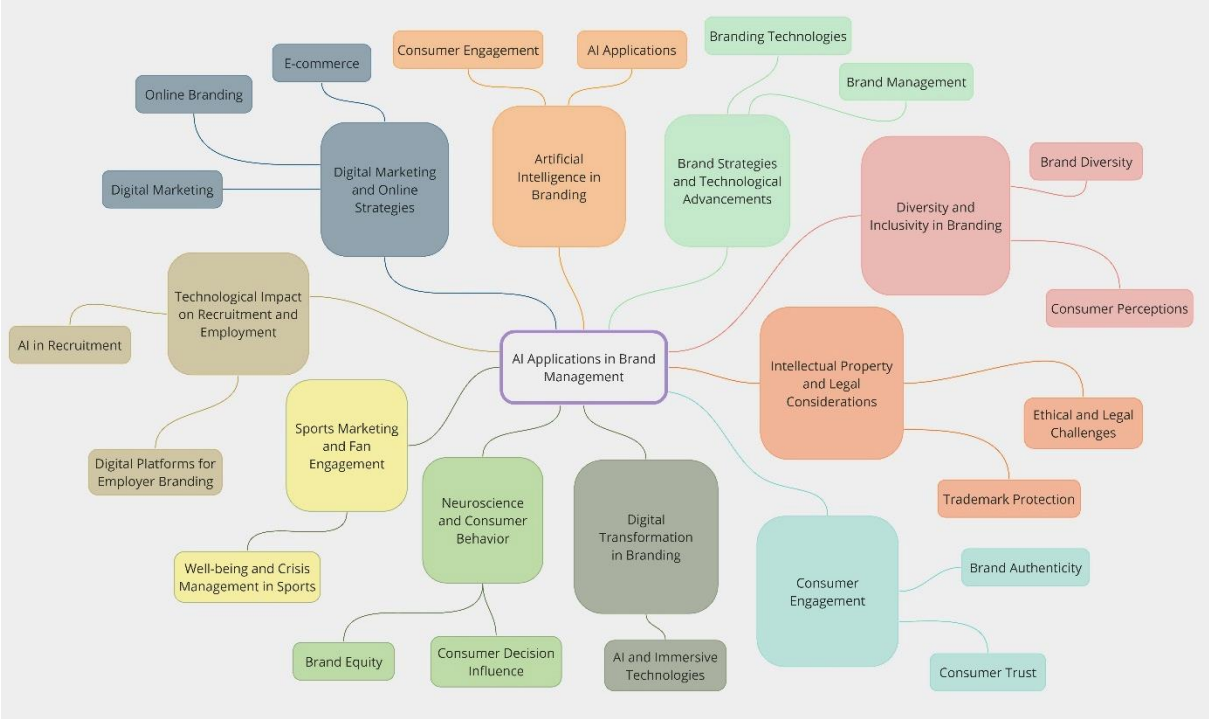

Figure 2. Thematic categories of studies.

Source: Own study.

The chart organizes the complex view of branding and marketing research into clear categories, showing the multifaceted approaches to studying consumer interactions, legal protections, technological advancements, and branding's psychological impact.

The number of publications included in this literature review study focused on AI applications in brand management from 2014 to 2024 is presented in Figure 3. The chart shows a general upward trend in the volume of publications, particularly notable from 2019 onward, suggesting an increasing interest and possibly advancements in this research area.

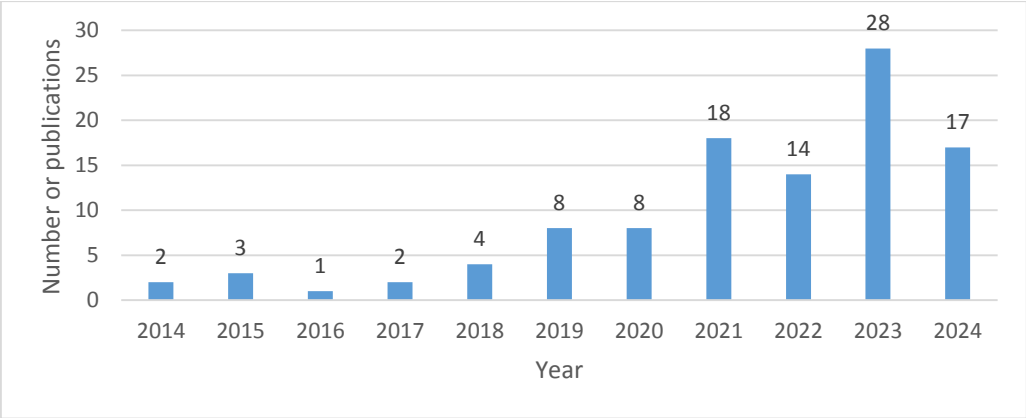

Figure 3. Number of analyzed studies by year of publication.

Source: Own study.

The analysis revealed several major themes in the corpus. The most popular category was the application of AI to analyze social media content for brand management. This is not a surprise, as social media platforms have been instrumental in shaping brand perception and enabling direct consumer engagement since the beginning of the Web 2.0 era, dated in 2004. 31 out of 105 papers discussed social media's role in brand management. The data highlighted the critical role of social media analytics in optimizing brand strategies. The most discussed social media platform was Twitter (10 papers), followed by Facebook (5), and only one study focused exclusively on Instagram.

The selected research papers reveal significant advancements and insights across various dimensions of using AI in social media to support brand management. The main aims of the analyses presented in the research papers discussing the area of social media can be grouped into several key objectives:

Several studies have focused on methods to enhance consumer engagement on social media, each exploring different aspects of interaction and content effectiveness. S. Tamaki (2021) delves into how image posts on Twitter can amplify content diffusion and influence consumer psychology, particularly within the tourism sector, suggesting the potent role visuals play in engaging audiences. Wu and Choi (2023) investigate communication strategies employed by anthropomorphized brands on Twitter, linking specific communicative tactics to increased consumer engagement. This study illustrates how personified brand messages can resonate with consumers, potentially heightening interaction rates. Furthermore, Krishen et al. (2024) examine how service organizations can use social media to effectively communicate sustainability initiatives, finding that certain tweet characteristics notably enhance engagement. This insight is pivotal for refining social media analytics tools, which can then be tailored to track and optimize these characteristics, thus supporting marketers in making informed, real-time decisions. Pappu Rajan (2019) focuses on the application of web analytics to measure brand health, using metrics like time on site, repeat visitors, and social interactions across multiple platforms to evaluate the impact of social media marketing on brand perception and consumer engagement. Finally, Lee, Hosanagar, Nair, (2018) provide a comprehensive analysis

of how different types of social media advertising content affect consumer engagement on Facebook. The study highlights that a mix of brand personality and informative content yields higher engagement and conversion rates, offering valuable guidance for crafting content that effectively balances information with appeal. Together, these studies contribute substantial insights into optimizing social media strategies to foster deeper consumer engagement and enhance brand management practices.

Several studies have been dedicated to enhancing the classification and analytics capabilities of social media platforms, with notable examples in Twitter and Instagram analysis. Cui et al. (2017) introduce an innovative approach to Twitter account classification through a method called Collaborative Distant Supervision (CDS). This technique significantly reduces the reliance on manual labeling by utilizing heuristic labels, which streamlines the process of distinguishing between personal and branding accounts, thereby improving the overall efficacy of Twitter analytics. The study by (Zare Mahmoudi, 2021) focuses specifically on Instagram by employing text mining to analyze customer experiences. This study delves into the comments made on posts about an electronics brand, using a non-monitoring approach to classify non-structured data. By identifying representations and emotions expressed by users, the research offers deep insights into product priorities and user sentiments. This targeted analysis not only underscores the unique aspects of brand interaction on Instagram but also enhances understanding of how social media content can be leveraged to assess consumer perceptions and experiences. Together, these studies contribute to the broader field of social media analytics by refining data classification techniques and providing actionable insights into user engagement and brand perception.

In the realm of AI applications in brand management, not all studies aim to present technical solutions; many provide comprehensive reviews and discussions instead. The papers (Varsha et al. 2021) and (Iansiti, Lakhani, 2020) provide comprehensive reviews and discussions on the innovative use of AI and machine learning within the domain of brand management, offering a broader understanding of AI's transformative role across various business landscapes. The first of the mentioned papers presents a bibliometric analysis spanning several decades to trace the influence of artificial intelligence on branding. This study reveals significant themes and trends, such as the integration of chatbots, social media analytics, and algorithm-based recommendations, which collectively enhance brand equity and improve user experiences. It not only highlights the critical intersections of AI with digital marketing strategies but also suggests areas ripe for future research and application. On the other hand, Iansiti and Lakhani (2020) examine the profound impact of AI-driven business models on traditional market structures. The authors argue that AI-centric firms, by leveraging advanced analytics and unique data, can outpace traditional business strategies, thereby reshaping competitive landscapes. This paper emphasizes the necessity for businesses to adapt to an AI-driven environment where software predominates over human operations, suggesting a shift towards more agile, data-driven business models. These insights collectively offer a detailed view of how

AI applications are redefining the principles of brand management and competitive strategy in an increasingly digital world.

The research papers (Bhatia et al., 2023) and (Durga; Godavarthi, 2024) delve into critical aspects of crisis management and brand perception, utilizing advanced analytical techniques to address the complexities of public sentiment and the spread of content on social media platforms. The first paper specifically examines the dynamics of negative brand relationships by studying the virality of tweets associated with Consumer Brand Sabotage. This study identifies key factors that influence how such content is shared and spreads, providing insights into how negative narratives can impact brand reputation and what can be done to mitigate these effects. On the other hand, (Durga, Godavarthi, 2024) focus on the application of deep learning techniques for sentiment analysis on Twitter. This research aims to decode the nuances of public opinion regarding products, services, and overall brand image. By analyzing tweet sentiments in real-time, the study offers brands the tools to proactively address public perceptions and react more effectively to emerging crises or negative feedback. Together, these studies contribute significantly to the understanding of how digital communication can influence brand perception and crisis management, equipping businesses with the necessary strategies to maintain a positive public image in challenging situations.

More than 20 studies from the analyzed corpus delve into various ethical and legal challenges in brand management within the context of AI advancements. These investigations highlight how artificial intelligence intersects with brand integrity and public trust.

C. Preece (2015) explores the construction and communication of authenticity in celebrity branding, using Ai Weiwei as a case study. This research highlights ethical considerations in how brands maintain authenticity while navigating the complexities of celebrity activism and public perception.

A novel authentication method using Nuclear Quadrupole Resonance spectroscopy to combat product adulteration—a pressing issue as brands struggle with mislabeling and false advertising—is introduced by Mansa et al. (2018), underscoring the legal and ethical imperative for accurate product representation.

The study by Kumar, Singh, and Kaur (2019) addresses the rampant spread of fake news in digital media and its impact on brand trust. This study uses machine learning to detect fake news, illustrating the ethical responsibility brands have to ensure the accuracy and reliability of information associated with their names.

Trappey et al. (2020) discuss the challenges of protecting trademarks in a rapidly digitalizing world, where the ease of copying and distributing branded content poses significant legal and ethical risks to intellectual property rights.

The abovementioned studies offer various approaches and insights into managing brand integrity in the present digital era. It is worth noticing that technology both poses new challenges and provides innovative solutions to age-old problems of trust and authenticity in brand management.

The next interesting thematic category of studies is the use of AI to explore how neural mechanisms and computational intelligence contribute to understanding and enhancing brand perception. These studies integrate neuroscience with AI to decode complex consumer behaviors and reactions toward brands.

The study (Poria et al., 2015) focuses on emulating the human brain's processes through computational intelligence, applying these techniques to sentiment analysis in branding. It explores how AI can decode human emotions and opinions from natural language, which is crucial for branding, product positioning, and reputation management. This approach enhances the understanding of sentiment data flows and provides insights into consumer sentiments which are integral to effective brand management.

Chen, Nelson and Hsu (2015): use functional neuroimaging and machine learning to study "brand personality" as perceived by consumers. By mapping brain activity related to different brand personalities, the study shows how certain brand traits are processed in areas of the brain involved in reasoning, imagery, and affect. This neuromarketing approach allows brands to see how consumers inherently view them, beyond conscious reasoning, offering a groundbreaking way to measure and influence brand perception.

Another study delved into neurocomputing to analyze consumer reactions to branded stimuli (Özbeyaz, 2021). Using EEG signals and a multi-stage machine learning process, the author identifies how the brain reacts to branded versus unbranded products. This research not only advances the understanding of neuromarketing but also improves methodological approaches to studying how brands influence consumer brain activity. Similarly (Watanuki, 2024) study focuses on the key brain regions involved in processing branded versus unbranded foods, using neuroimaging and machine learning to discern consumer behavior at the neural level. It investigates how brain areas involved in emotional and associative processing contribute to the perception of brand equity, which is crucial for marketers aiming to understand and influence consumer preferences deeply.

The paper (Çakar, Filiz, 2023) explores political neuromarketing, where machine learning and neuroimaging techniques like fNIRS are used to analyze voters' perceptions of political leaders. The study maps brain activity to specific political branding elements, providing insights into how political brands can be managed to influence voter behavior effectively.

These studies collectively show how AI and neuroscience are being used to pioneer new frontiers in understanding consumer behavior, providing brands with sophisticated tools to craft more effective marketing strategies based on deep, often unconscious, consumer responses.

Human resources play a crucial role in brand management, as the recruitment, retention, and development of talent directly influence an organization's brand reputation and its ability to keep the brand’s promises to customers and stakeholders. Several studies were identified that describe AI applications in brand management and discuss problems related to human resources recruitment, talent, and employment.

The application of chatbots in recruitment was discussed by Yi, P.K., Ray, N.D., and Segall, N. (2023). Their study explores the potential of AI chatbots and virtual QA sessions to aid recruitment in the post-COVID-19 era, particularly for a pain fellowship program. It assessed the effectiveness of these tools in improving applicant engagement and the overall perception of the program. Similarly, Nawaz, N. and Gomes, A.M. (2019) assess the impact of AI chatbots on the recruitment process, focusing on their service delivery and engagement with candidates, suggesting that chatbots can significantly enhance the recruitment strategy.

The study (Dabirian, Kietzmann, Diba, 2017) presents research using AI (IBM Watson) to analyze data from Glassdoor reviews to identify key employer branding value propositions. It demonstrates how AI can help organizations understand and enhance their attractiveness to potential employees.

Das, M., and Myrden, S. (2021) investigate the application of artificial intelligence (AI) in talent management and player roster optimization by professional soccer clubs in Major League Soccer (MLS). It suggests that AI is crucial for achieving sustainable competitive advantage in the sports industry.

Ceide, C., Ruiz, M., and M. Álvarez (2023) delve into the employment practices of European public broadcasters in the context of AI, focusing on recruitment channels, required skills, and employer branding. Similarly, (Dalvi, 2021) discusses how companies use AI to enhance their employer branding by engaging prospective employees through various digital platforms, focusing on matching organizational needs with the right talent.

Two recent studies by Medina Aguerrebere, P., Medina, E., Gonzalez Pacanowski (2024) and (Aguerrebere, Medina, Pacanowski, 2024) examine how hospitals in France and Spain utilize artificial intelligence (AI) and smart technologies to enhance their branding and manage relationships with various stakeholders, such as employees, media, and public authorities. Both studies highlight the strategic use of AI and online tools in improving the efficiency and effectiveness of hospital branding efforts. The French hospitals focus on employing AI to build a cohesive brand that resonates across all stakeholder interactions, ensuring consistent communication and enhancing their reputation. Meanwhile, Spanish hospitals emphasize the importance of integrating AI tools into their communication strategies to ensure a unified approach that aligns with their organizational goals. These efforts underscore the need for hospitals to adopt advanced technologies in brand management to cater to the evolving expectations of their stakeholders and strengthen their market positions.

These studies highlight various applications of AI in enhancing brand management and tackling recruitment and employment challenges across different sectors, demonstrating the growing importance of AI in strategic human resource management and organizational branding.

5. Discussion

In recent years, the intersection of artificial intelligence and brand management has drawn considerable interest from both academia and industry, signaling a shift towards more data-driven, precise, and adaptable branding strategies. The multifaceted applications of AI in brand management span several critical areas, including legal and ethical issues, neuroscience, HR, and recruitment, and notably, social media, which serves as a vibrant platform for research and practical experiments with AI.

The chart illustrates the prevalent themes identified in our academic papers' literature review from 2014 to 2024. Notably, the focus on legal and ethical issues has shown significant variability but peaked sharply in 2023. Interest in neuroscience and social media topics has also fluctuated over the years, with a noticeable increase after 2021. The trend in HR and recruitment studies remains relatively steady, with a peak in 2023. The current trends shown in the chart for 2024 are only up to May, so we can anticipate more publications and potential shifts in these trends as the year progresses.

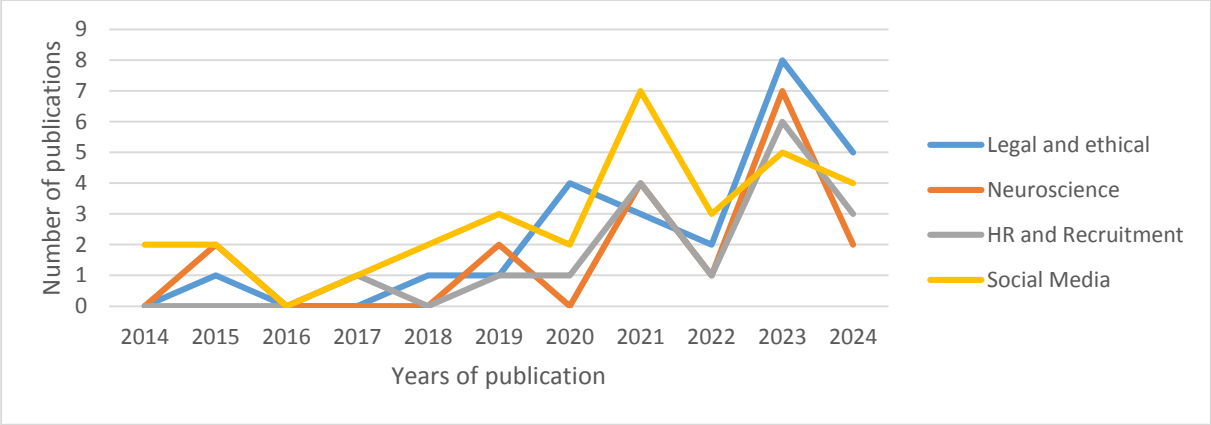

Figure 4. Number of analyzed studies by thematic category and year of publication.
Source: Own study.

It is worth noticing that obtaining data from social media has become increasingly challenging due to recent privacy policy changes, such as those implemented by Facebook following significant scandals and critiques (Kelley, Cyphers, McSherry 2021). These changes have tightened access to user data, significantly impacting the ability of researchers to conduct extensive social media analysis. For instance, after the Cambridge Analytica incident, Facebook scaled back access to essential data points that researchers previously utilized, affecting the scope and ease of academic and market research. In contrast, Twitter remains a more open platform, often preferred in academic circles for its relative ease of data access and real-time communication capabilities, making it an attractive option for brand management studies. These dynamics illustrate the evolving challenges and considerations in leveraging social media platforms for brand management research within the context of stringent data privacy norms.

The relatively lower discussion on themes such as the metaverse, augmented and immersive technologies, video content analysis, music and sonic branding, and branding 4.0 might be attributed to these areas being either too niche, emerging, or specialized, thus attracting less mainstream academic focus in brand management domain compared to more established fields like social media or legal and ethical issues in technology.

Not all studies on AI applications in brand management aim to present technical solutions; many provide comprehensive reviews and discussions instead. These reviews serve as valuable resources for synthesizing existing knowledge, identifying trends, and highlighting gaps in the research. By mapping out the landscape of AI's influence on branding, such studies explain how artificial intelligence is being integrated into marketing strategies and the implications this has for future research and practice.

For instance, the reviews often examine the broader impacts of AI on brand equity, customer engagement, and market competition. They discuss the theoretical underpinnings and practical applications of AI technologies like machine learning algorithms, chatbots, and data analytics in crafting more personalized and effective brand strategies not delving into technical details. Additionally, they may explore the ethical considerations, challenges, and potential pitfalls of deploying AI in this context.

6. Conclusions

Our systematic review has underscored the significant impact of Artificial Intelligence (AI) and Machine Learning (ML) on the domain of brand management. The findings reveal that AI-enhanced strategies substantially improve consumer engagement, communication personalization, and brand equity measurement.

For practitioners, the practical applications of these findings are manifold. Marketers are equipped to use AI for more dynamic and responsive brand strategies, tailoring their efforts to meet precise consumer demands and shifting market conditions. Nevertheless, the integration of such advanced technologies is not devoid of challenges. Ethical concerns, such as privacy issues and potential biases, alongside the technical hurdles of AI implementation, call for a balanced approach to AI in marketing practices.

Looking ahead, the field would benefit from more empirical studies to validate the theoretical constructs our review has discussed. Interdisciplinary research, blending AI with insights from psychology and sociology, could enrich our understanding of AI’s role in shaping consumer perceptions and brand loyalty. Moreover, continuous technological advancements in AI necessitate ongoing adaptation and learning within the brand management sector.

AI presents substantial opportunities for revolutionizing brand management, but it also requires careful consideration of ethical standards and a robust framework for integrating new technologies into established marketing practices. Future research should aim to bridge these gaps, ensuring that AI's role in brand management is both innovative and responsible.

The study presented in this article is subject to certain limitations. While the literature review was conducted using articles sourced from the Scopus database, it is important to acknowledge that this approach may not fully encompass the most recent developments in the field of AI in brand management. The exclusion of up-to-date industry reports and non-indexed publications, such as corporate blogs, could potentially result in a partial representation of the current landscape.

Another notable limitation is that the Scopus database predominantly includes English-language publications, which may result in the exclusion of valuable insights from non-English sources. However, the deliberate choice of utilizing a globally recognized database like Scopus offers the potential for future research endeavors to explore and compare the specificities of AI-related publications across different countries. It is important to acknowledge that this approach may not fully encompass the most recent developments in the field of AI in brand management, particularly within regions where non-English publications hold significant relevance, such as in non-English-speaking markets. As such, the findings and implications of this study should be interpreted within the context of these limitations, prompting a call for future research efforts to incorporate a broader range of sources and languages to ensure a more holistic understanding of the subject matter.

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