DELHI TECHNOLOGICAL UNIVERSITY

Delhi School Of Management

DIGITAL MARKETING PROJECT

A Bibliometric Analysis of Research Trends to Study the Efficacy of Humour in Advertising in the Age of AI

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ABSTRACT

This study explores how humour is used in advertising, especially in the changing context of Artificial Intelligence (AI). Humour is used since long as an effective tool in advertising, enhancing recall, emotional connection and consumer attitude formation. However, as there is a rise in AI-driven content creation and personalisation it introduced new dynamics into how humour is designed, perceived, and evaluated. Using Bibliometric analysis technique, this study analyses a curated 94 documents retrieved from the Scopus database after initial sorting from the initial set of 184 documents. This analysis was done through Biblioshiny interface in R and supported by visual mapping using VOSviewer. This study examines publication trends, keyword patterns, cluster analysis, main authors and journals. The results highlight four emerging thematic areas 1-Humour and consumer engagement 2-humour in digital and social media advertising 3-AI personalization and emotional response 4-cultural consideration in automated messaging. This review tells us about how humour function with technology within advertising environments and provides meaningful direction for future research in AI-enabled brand communication

1.INTRODUCTION

Humour has always served as a cornerstone element in the advertising world. It creates genuine connections by making audiences smile, enhancing ad recall, and building positive brand associations. When consumers find something entertaining, their natural defenses lower considerably. This is specifically why humour transforms advertisements into more engaging content while reducing audience resistance. Traditionally, advertisements were crafted by talented creatives who understood which comedic approaches resonated within specific cultural contexts and which ones failed. Yet,new trends are emerging . As Artificial Intelligence emerges as a dominant force, even advanced machines are mastering the art of creating entertaining content. These AI systems can generate humorous content, identify comedic trends, and deliver personalized advertisements that align perfectly with individual preferences.

AI has been used widely in advertising in recent years. Smart algorithms, abundance of data, and the desire for personalized content are all present. These days, AI is capable of a wide range of tasks, including product recommendations, customer service, intelligent ad placement, and even creating witty memes or videos. Nonetheless, humour is a powerful tool for drawing people's attention, particularly on social media. Everyone longs for comments, shares, and likes. Thus, researchers and marketers are now interested in the combination of AI and humour.

But actually, it’s not that easy. Humour depends on culture, language, and how people see things. Sometimes AI just doesn’t get it. It might make a joke that sounds weird or even offensive to people. That’s risky. What’s funny in one country can sound rude in another. Also, using too much personal data to make jokes feels creepy sometimes. These things bring up questions like—can AI really “understand” humour? Can it be creative and ethical at the same time?

Despite the widespread use of humour and AI today, research on this combination is still dispersed. While some studies focus on AI tools, others examine emotions. It's kind of same everywhere. This study attempts to make the connections because of this. This is aided by bibliometric analysis, which displays trends, leading authors, major journals, and the connections between ideas in this field.

For my research, I studied 94 papers published between 1998 and 2025. Data was taken from Scopus and analysed using Biblioshiny in R Studio, plus VOSviewer for mapping. I looked at keywords, clusters, and citation links. This helped me find the main themes and the research gaps that still exist.

This work demonstrates how humour is evolving in the AI era and helps to tie everything together. It also provides a foundation for further research, such as how to make AI-generated humour more respectful, human, and emotionally intelligent.

2.1 OBJECTIVES OF STUDY AND RESEARCH METHODOLOGY

This study's main goal is to examine current research trends regarding the use of humour in advertising, with a focus on the growing influence of communication enabled by artificial intelligence (AI). This study aims to comprehend how humour has developed as a persuasive tool when combined with digital media engagement, algorithmic personalization, and automated content creation. To support this main purpose, the following sub-objectives are formulated:

- To examine the publication trends relating to humour in advertising in the context of AI.
- To identify the core thematic areas and research clusters that have emerged within this field.
- To analyse the intellectual and collaborative structure of research through citation patterns, keyword networks, and country-level collaborations.
- To outline future research opportunities, based on observed gaps and emerging trends in the literature.

Based on the above objectives, the study aims to answer the following research questions (RQs):

- RQ1: What are the current publication trends in humour in advertising research, especially within AI-driven contexts?
- RQ2: Which specific thematic research areas and keywords dominate this field?
- RQ3: How are influential authors, countries, and journals interconnected in developing this research domain?
- RQ4: What insights can be drawn to guide future studies on humour and AI-based advertising strategies?

2.2 DATABASE SELECTION, IDENTIFYING KEYWORDS AND ELIGIBILITY CRITERIA

For this bibliometric analysis, information was gathered from the Scopus database. Scopus was selected due to its extensive coverage of academic journals, conference proceedings, and scholarly publications across diverse disciplines. The platform maintains a strong reputation and enjoys widespread acceptance within the academic community. Numerous research studies rely on Scopus for bibliometric analysis and scientific mapping because it delivers reliable data, accurate citation information, and seamless compatibility with analytical tools.

Consequently, Scopus represented an optimal selection for this investigation. The database offered an extensive and dependable repository of scholarly literature focusing on humour in advertising, especially within the context of artificial intelligence advancement. This choice enhanced both the thoroughness and reliability of the analytical process.

To ensure that the dataset captured the relevant literature, a combination of carefully selected keywords was used. The search strategy included terms such as:

"humour in advertising" OR "humour in advertising" OR "funny ads" OR "comedic advertising" OR "satire advertising" OR "humour appeal" OR "humour appeal") AND ("advertising effectiveness" OR "advertising impact" OR "consumer behaviour" OR "brand attitude" OR "persuasion" OR "advertising recall") AND ("artificial intelligence" OR "AI" OR "machine learning" OR "generative AI" OR "chatbot marketing" OR "deepfake" OR "personalized advertising" OR "digital marketing"

in the title, abstract, or author keywords fields. These keywords were chosen to include variations of the concept of humour, core advertising terminology, and emerging AI-related expressions. The initial search produced 184 documents.

Following the PRISMA screening procedure, the documents were evaluated in three stages:

Screening: Titles and abstracts were reviewed to remove papers unrelated to humour in promotional contexts or those referring to humour in non-marketing domains, reducing the dataset to 176 documents.

Eligibility: Full-text review was conducted to assess alignment with the study's objectives. Articles that focused purely on computational humour without an advertising or consumer communication context were excluded. After this stage, 94 documents were retained for detailed bibliometric analysis.

Inclusion: Only documents published in English were considered. Books, journal articles, conference papers, and review articles were considered, ensuring representation of both theoretical and applied research.

This systematic filtering process ensured that the final dataset was both relevant and academically rigorous, enabling a valid and meaningful bibliometric assessment of humour in advertising in the age of AI.

3. BIBLIOMETRIC ANALYSIS AND VISUALISATION

For doing the bibliometric analysis, R Studio was used along with the Bibliometrix package. This package has many useful tools for studying and measuring research data in a systematic way. The web-based tool Biblioshiny was used to run the analysis. It made data handling, exploring, and visualization much easier with its simple dashboard. Using this tool, different descriptive statistics were generated like the number of publications, authorship trends, top journals, and citation patterns from the selected 94 papers.

Biblioshiny helped to find many important insights such as yearly research output, key journals, most-used keywords, and author collaboration networks. The keyword analysis was especially helpful to see what new topics and themes are becoming popular in the area of humour and AI-based advertising.

For mapping and visual display, the study also used VOSviewer software. This tool is very good at making and showing different kinds of bibliometric networks — such as co-authorship, co-citation, and keyword co-occurrence maps. With the help of VOSviewer, visual maps were made that showed how research topics connect with each other. It also helped to see which ideas form strong clusters and which new directions are starting to appear in this field.

The analysis was done in two main parts:
• Descriptive bibliometric analysis – to study publication types, number of papers, authors, and citation trends.
• Thematic or inferential analysis – to explore how topics are linked through co-occurrence and to find research clusters using bibliographic coupling.

By using both Biblioshiny and VOSviewer, the study could build a clear and organized picture of the research area. It showed how the topic of humour in advertising has developed over time, what the main research hotspots are, and how new ideas are emerging in the AI-driven advertising world.

4.DATA ANALYSIS AND FINDING

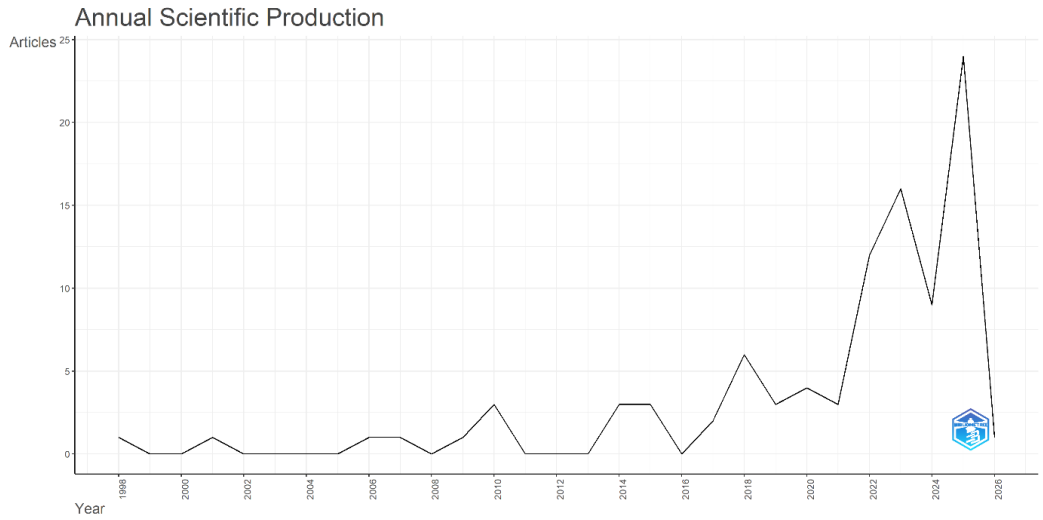
4.1. PUBLICATION TREND

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	1998:2026
Sources (Journals, Books, etc)	61
Documents	94
Annual Growth Rate %	0
Document Average Age	4.21
Average citations per doc	31.68
References	821
DOCUMENT CONTENTS	
Keywords Plus (ID)	354
Author's Keywords (DE)	601
AUTHORS	
Authors	591
Authors of single-authored docs	0
AUTHORS COLLABORATION	
Single-authored docs	0
Co-Authors per Doc	9.06
International co-authorships %	27.66
DOCUMENT TYPES	
article	69
book	12
book chapter	3
conference paper	7
review	3

The graph (Annual Scientific Production) here shows that how the research on humour in advertising and AI has grown slowly from 1998 to 2025. In the period of 1998-2010 there were very few studies- just 1 or 2 papers. This reflects that during this time , humour in advertising was mainly studies through creative views with no connection with technology.

In 2016 a clear upward pattern emerged because of the increase in automated content creation and digital marketing strategies. Publication volumes also rose dramatically from 2020. This change tells us that academics began researching on personalised advertising and ai driven creative solutions. Research work in this field reached highest in 2024 , with most research paper. This trend confirms, that the connection of Humour and AI has established itself as a dominant area within current marketing studies

This upward moment in the graph suggests that more scholars are exploring how automated systems create, test, and adjust humour content to attract more and more customers. The slow but steady growth also shows that this topic is moving from being a small niche to becoming a developing research area in marketing and communication.



4.2. BRADFORDS SOURCE ARRANGEMENT

The Bradford's Law analysis shows how research sources are spread out in publishing studies on humour in advertising within the context of Artificial Intelligence. The main or core sources were identified based on how often they appeared and how much they contributed to the total number of publications. From the table and graph, it can be seen that only a few journals make up Zone 1, the core zone, while the rest fall into Zone 2 and beyond, which represent the more peripheral or less frequent sources.

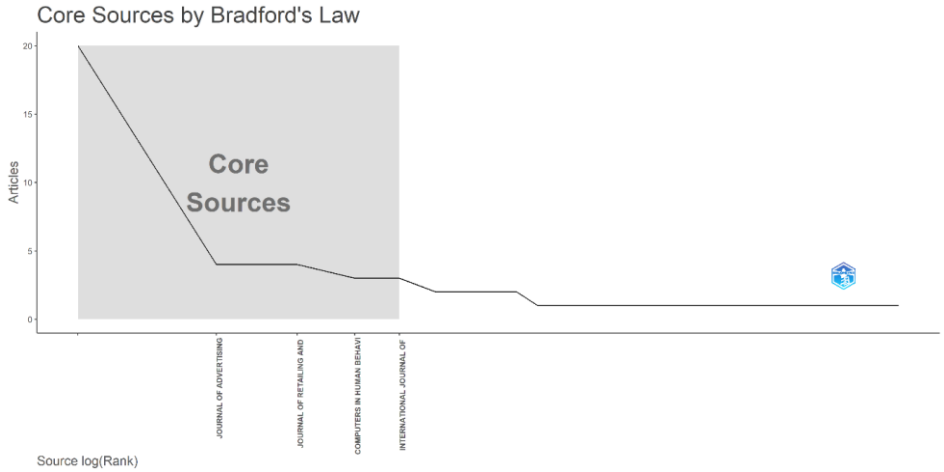
SO	Rank	Freq	cumFreq	Zone
	1	20	20	Zone 1
JOURNAL OF ADVERTISING	2	4	24	Zone 1
JOURNAL OF RETAILING AND CONSUMER SERVICES	3	4	28	Zone 1
COMPUTERS IN HUMAN BEHAVIOR	4	3	31	Zone 1
INTERNATIONAL JOURNAL OF ADVERTISING	5	3	34	Zone 1
ANNALS OF TOURISM RESEARCH	6	2	36	Zone 2
FRONTIERS IN PSYCHOLOGY	7	2	38	Zone 2
INTERNATIONAL JOURNAL OF CONSUMER STUDIES	8	2	40	Zone 2
JOURNAL OF MARKETING COMMUNICATIONS	9	2	42	Zone 2
ACM TRANSACTIONS ON INFORMATION SYSTEMS	10	1	43	Zone 2
ACTA PSYCHOLOGICA	11	1	44	Zone 2
ADMINISTRATIVE SCIENCES	12	1	45	Zone 2
ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN, ANALYSIS AND MANUFACTURING: AIEDAM	13	1	46	Zone 2
COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE	14	1	47	Zone 2
CURRENT OPINION IN PSYCHOLOGY	15	1	48	Zone 2
ELECTRONIC COMMERCE RESEARCH	16	1	49	Zone 2
ELECTRONIC COMMERCE RESEARCH AND APPLICATIONS	17	1	50	Zone 2
ENTERTAINMENT COMPUTING	18	1	51	Zone 2
EUROPEAN JOURNAL OF INNOVATION MANAGEMENT	19	1	52	Zone 2
HEALTH COMMUNICATION	20	1	53	Zone 2

The Journal of Advertising stands out as the top source with 20 publications, showing its key role in advancing research on humour and marketing communication. After that come journals like the Journal of Retailing and Consumer Services, Computers in Human Behaviour, and the International Journal of Advertising. Together, these four journals form the core zone, contributing most of the important and influential papers in this area.

The Zone 2 journals include Frontiers in Psychology, Journal of Marketing Communications, and Electronic Commerce Research. These journals show a more interdisciplinary nature,

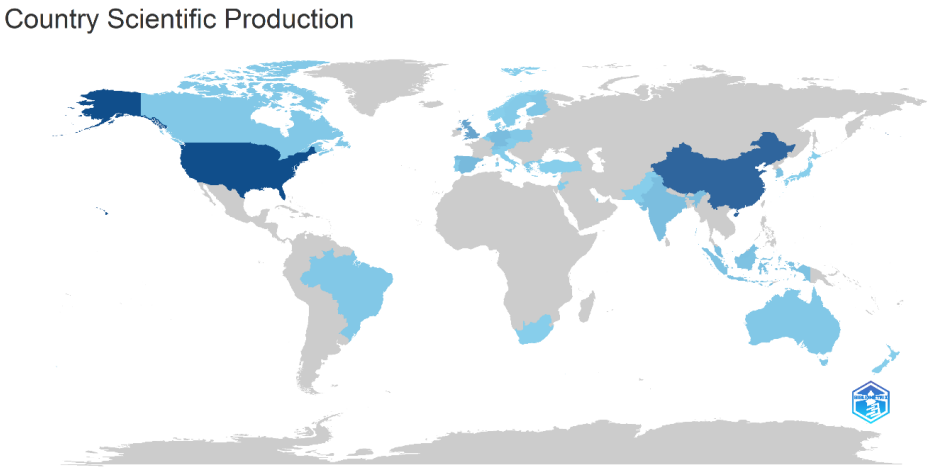
connecting humour in advertising with subjects like psychology, communication, and technology.

All things considered, this pattern demonstrates that humour in AI-powered advertising is not restricted to marketing research. It has developed into a multidisciplinary field of study where various disciplines, including digital communication, human behaviour, and technological innovation, combine to explain how humour functions in the contemporary advertising industry.



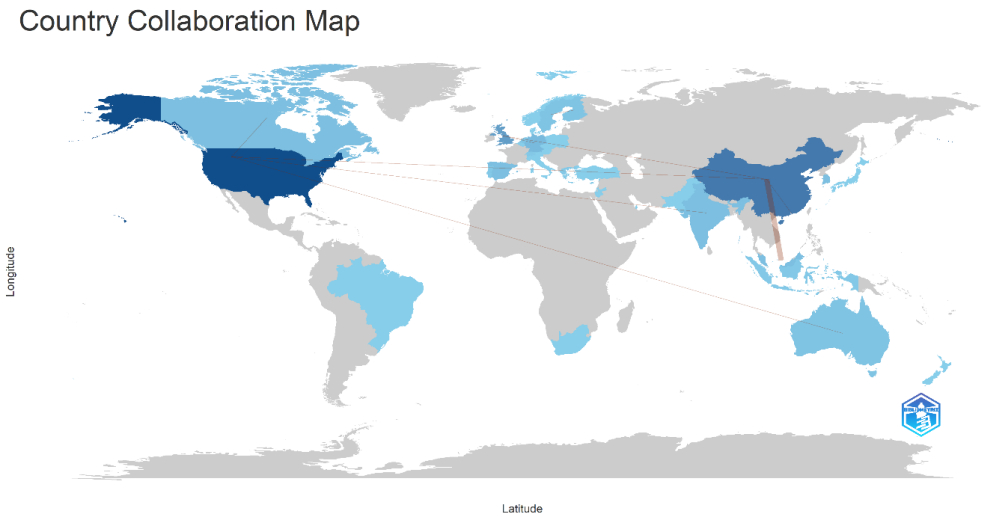
4.3. COUNTRY COLLABORATION

The research on humour in advertising and artificial intelligence is gaining attention around the world. According to the country scientific production map, most of the studies come from a few leading countries. Among them, the United States and China appear as the top contributors, shown with darker shades on the map. Their strong universities and heavy investments in both AI and marketing research have helped them stay ahead. Other countries such as the United Kingdom, India, Australia, Germany, and Spain are also becoming more active in this area. This growing interest from different parts of the world shows that the idea of using humour in AI-driven advertising is becoming an exciting topic for many researchers.



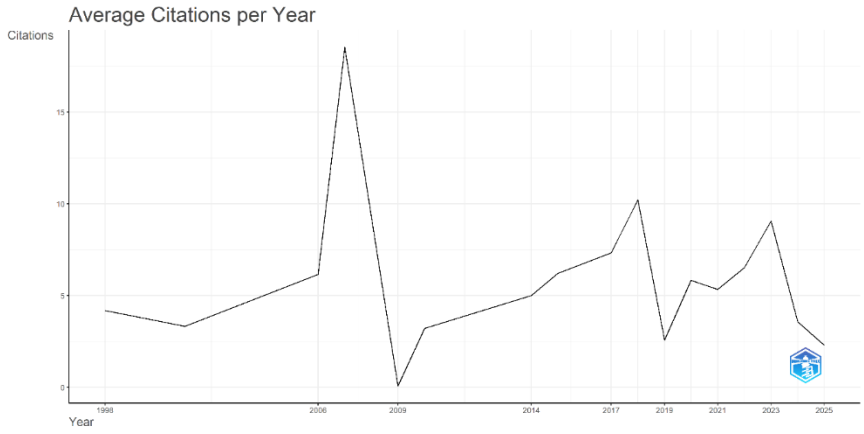
The collaboration map shows that there are active cross-country research partnerships, mainly between the United States and Asian countries such as China and India, along with several European regions. These collaborations show the interdisciplinary nature of the topic — where technical knowledge from AI-driven countries combines with marketing and consumer behaviour insights from social science researchers.

Still, the overall level of collaboration is moderate. The data shows that international co-authorship makes up around 27.6% of total publications. This means that while global teamwork is rising, a large part of the research is still done within individual countries. Building stronger international research networks could help make more cultural comparisons and improve understanding of how humour works in AI-mediated advertising across different audiences and markets.



4.5.CITATION ANALYSIS

The citation analysis helps to understand how much impact and visibility the studies on humour in advertising and Artificial Intelligence have gained over the years. The trend of average citations per year shows how much attention each group of studies has received from the academic community at different tes.



By looking at the figure, it is clear that between 1998 and 2007, research in this field received very few citations. This shows that the topic was still in its early stage, with limited interest from scholars. Around 2008, there was a noticeable rise in citations, probably because a few key studies encouraged more discussions about humour and consumer behaviour in advertising. After 2009, the numbers dropped a little, which could be due to researchers turning their attention to newer areas like digital and social media marketing.

However, from 2015 onwards, citations began to rise again, showing growing interest and awareness. This upward trend reflects how artificial intelligence and advanced analytics started playing a bigger role in advertising research. The visible peaks around 2018 and 2023 suggest that researchers became more active again, especially as AI-based personalization and automated content creation became popular themes.

Overall, this pattern shows how the study of humour and AI in advertising has grown from a small, less-known area into a dynamic and influential research field. The steady increase in citations in recent years clearly proves that this topic is now gaining serious recognition and value in the digital marketing world.

4.6.KEYWORD ANALYSIS

The keyword co-occurrence analysis and word cloud show the main themes in research on humour in advertising in the age of Artificial Intelligence. The most repeated words are “humour” (19 times), “advertising” (12), “marketing” (10), “social media” (10), and “artificial intelligence” (5). These words clearly highlight the central idea of the field — studying how humour works as a persuasive tool in modern, tech-based marketing communication.

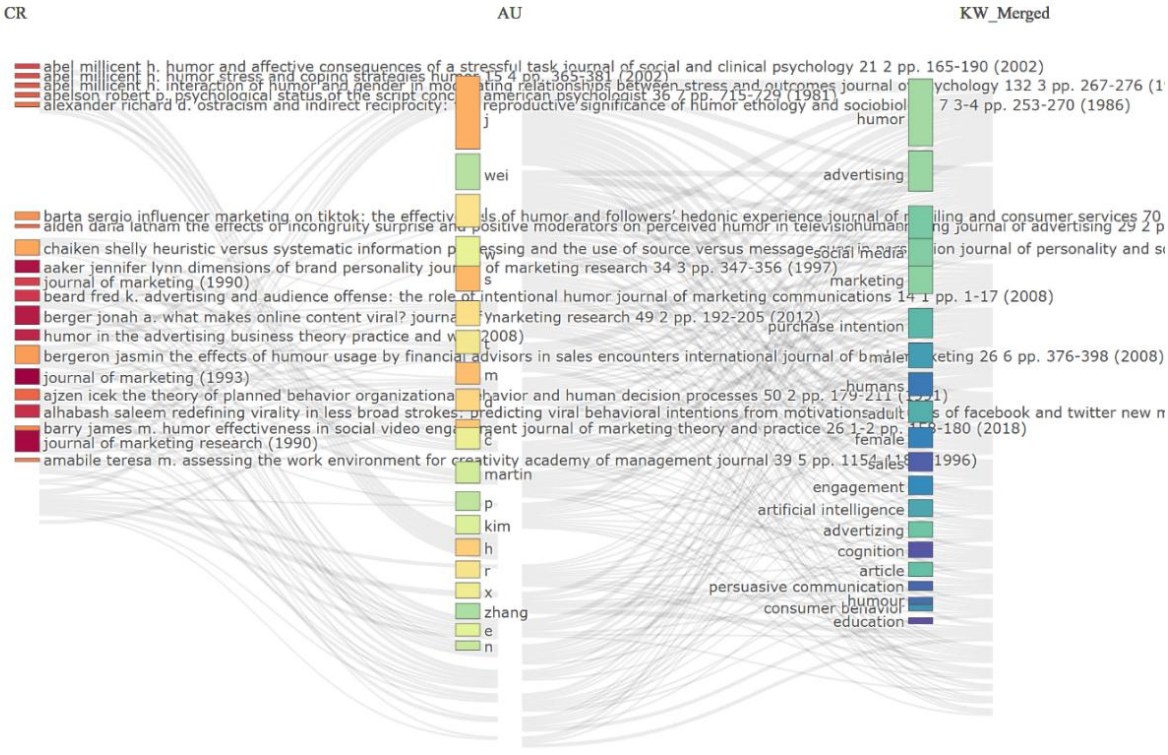
The strong presence of keywords like “social media” and “purchase intention” shows that many researchers are now focusing on consumer engagement and behavioural response to humourous ads on digital platforms. Words such as “human,” “cognition,” and “consumer behaviour” point out that the psychological side of humour — how people think, feel, and react — still remains very important. Also, the appearance of “AI,” “chatbots,” and “computational humour” proves that artificial intelligence tools are becoming more common in content creation, personalization, and targeted marketing.

From conventional studies on humour in advertisements to more AI-driven, data-supported, and interactive digital contexts, the keyword map indicates that the field of study is generally progressing. This change is significant because it demonstrates how humour is now viewed as an algorithm-based tactic to enhance communication and engagement in digital marketing, in addition to being a creative or emotive tool.

Words	Occurrences
humor	19
advertising	12
marketing	10
social media	10
human	9
advertizing	6
article	6
purchase intention	6
adult	5
artificial intelligence	5

4.7.KEYWORD-AUTHOR-SOURCE PLOT: THREE FIELD PLOT

The Three-Field Plot gives a visual overview of how the most influential authors (AU), their commonly used keywords (KW), and the journals or sources (SO) where they publish are connected. This visualization helps to understand the intellectual links and main themes within the research on humour in advertising and Artificial Intelligence.



The map shows that keywords such as “humour,” “advertising,” “marketing,” “social media,” and “artificial intelligence” are most often connected with active and well-known authors in this field. Scholars like Wei, Barta, and Berger appear frequently, showing their strong involvement in topics like consumer engagement, purchase intention, and digital advertising effectiveness. These authors usually publish in major journals such as the Journal of Advertising, Journal of Marketing Communications, and the Journal of Retailing and Consumer Services, which also appeared earlier as core sources in the Bradford’s Law analysis.

This field is highly interdisciplinary, connecting concepts from psychology, communication studies, and AI-based marketing, as evidenced by the flow between authors, keywords, and journals. A growing interest in comprehending how humour works in algorithm-driven digital spaces, particularly how it aids in engagement, persuasion, and brand connection in today's AI-powered advertising world, is also indicated by the frequent use of keywords related to social media.

4.8. Clustering Based on Bibliographic Coupling

The bibliographic coupling analysis was done using VOSviewer to find the main themes and positive connections among the 94 publications studied. Based on how many references the documents share, four main clusters were identified. Each cluster shows a different research direction in the study of humour in advertising within the context of Artificial Intelligence (AI). Together, they explain how research has grown, connected, and expanded across marketing, communication, and technology areas.

Cluster 1: AI-Driven Humour and Consumer Engagement

This is the largest and most dominant cluster. It includes authors such as Ahn (2017), Klöckner (2015), Zhang (2022), Shin (2023), and Cheng (2021). Studies here explore how AI, digital algorithms, and automation affect humour-based advertising effectiveness. The focus is on consumer engagement, emotional reactions, and purchase intention in AI-powered marketing. This cluster also connects humour with machine learning, personalization, and data-driven content, showing the newest and most active line of research in this field.

Cluster 2: Advertising Appeal and Cognitive Processing

This cluster contains classic studies by Najjar (1998), Johar (2001), Lee (2015), and Papageorgiou (2023). It represents the theoretical and cognitive base of humour research in advertising. These works study how humour shapes attitudes, persuasive power, and

message understanding. The cluster builds a bridge between early humour theories and modern digital persuasion models, blending traditional insights with new digital interpretations.

Cluster 3: Humour, Media Psychology, and Content Evaluation

Cluster 3 includes authors such as Martin (2006, 2018), Mai (2014), and Söderlund (2018). It looks at the psychological and behavioural side of humour perception. Studies in this group explore media psychology, entertainment effects, and consumer experience with humourous ads. This cluster explains how humour affects both emotional and cognitive responses, especially when used in multimedia or visual content.

Cluster 4: Social Media Communication and Ethical Implications

This emerging cluster includes recent studies by Weinberger (2019), Freeman (2023), and Zargham (2023). It focuses on the role of humour in social media, influencer marketing, and AI-based communication. It also discusses ethical, cultural, and social issues related to automated humour creation and distribution. The cluster highlights growing debates around responsible and ethical AI use in digital marketing.

Collectively, these four clusters demonstrate a distinct development within the field — moving from traditional humour and influence theories toward contemporary AI-enhanced, information-driven communication approaches. The results illustrate how advertising humour research has transformed from human-centered creativity and psychology into a more comprehensive technological and cross-disciplinary structure, mirroring marketing's evolving landscape during the artificial intelligence age.

5.CONCLUSION AND IMPLICATIONS

This bibliometric review tries to understand how research on humour in advertising has changed over the years, especially after the rise of Artificial Intelligence (AI). For this study, I collected 94 research papers from the Scopus database and analysed them using Biblioshiny and VOSviewer software. These tools helped to find the main themes, patterns of research, and collaborations among authors. The results show that studies in this field have increased steadily after 2016. This also matches the growing use of AI tools in marketing, content creation, and advertising.From the analysis, three important research areas were noticed:

1. **AI-based humour and consumer engagement** – focuses on how algorithms and automated messages influence customers' reactions, interest, and buying behaviour.
2. **Social media and digital humour** – looks at how funny and creative online content helps brands to connect better with people, improve brand recall, and spread messages faster.
3. **Human perception and psychology** – studies how people feel and respond when humour is created or delivered through AI systems.

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Together, these themes show a clear shift from traditional creative advertising to data-driven, technology-based communication strategies.

From a theoretical standpoint, this research enhances our knowledge of AI's exciting transformation of humour—a deeply human and emotional element. The study shows that humour can be analyzed and measured effectively within AI-driven environments by connecting marketing communication, psychology, and computer science in meaningful ways.

On a practical level, these findings offer valuable guidance for marketers and advertisers. Brands can harness AI technologies to develop and personalize humourous content, while staying mindful of cultural awareness and ethical considerations. The continued success of social media proves that humour remains an exceptionally effective method for connecting with audiences, even in our increasingly algorithm-focused digital landscape.

Moving forward, upcoming research holds great promise for exploring cross-cultural studies, examining ethical considerations in automated humour creation, and conducting real-world evaluations of AI-generated comedic advertisements. Enhanced global partnerships will create more diverse and methodologically robust research opportunities, enabling scholars to better comprehend how humour and artificial intelligence work together to influence the exciting future of digital advertising communication.

6.REFERENCES

Main Authors' References (Bibliometrics)

- Aria, M., & Cuccurullo, C. (2017). *bibliometrix: An R-tool for comprehensive science mapping analysis.* Journal of Informetrics, 11(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007
- Aria, M., Cuccurullo, C., D'Aniello, L., Misuraca, M., & Spano, M. (2024). *Comparative science mapping: a novel conceptual structure analysis with metadata.* Scientometrics. https://doi.org/10.1007/s11192-024-05161-6
- Aria, M., Le, T., Cuccurullo, C., Belfiore, A., & Choe, J. (2023). *openalexR: An R-Tool for Collecting Bibliometric Data from OpenAlex.* R Journal, 15(4). https://doi.org/10.32614/rj-2023-089
- Aria, M., Misuraca, M., & Spano, M. (2020). *Mapping the evolution of social research and data science on 30 years of Social Indicators Research.* Social Indicators Research. https://doi.org/10.1007/s11205-020-02281-3
- Aria, M., Cuccurullo, C., D'Aniello, L., Misuraca, M., & Spano, M. (2022). *Thematic Analysis as a New Culturomic Tool: The Social Media Coverage on COVID-19 Pandemic in Italy.* Sustainability, 14(6), 3643. https://doi.org/10.3390/su14063643

- Aria, M., Alterisio, A., Scandurra, A., Pinelli, C., & D'Aniello, B. (2021). *The scholar's best friend: research trends in dog cognitive and behavioural studies.* Animal Cognition. https://doi.org/10.1007/s10071-020-01448-2
- Cuccurullo, C., Aria, M., & Sarto, F. (2016). *Foundations and trends in performance management: A twenty-five years bibliometric analysis in business and public administration domains.* Scientometrics. https://doi.org/10.1007/s11192-016-1948-8
- Cuccurullo, C., Aria, M., & Sarto, F. (2015). *Twenty years of research on performance management in business and public administration domains.* Presented at CARME 2015. Link
- Sarto, F., Cuccurullo, C., & Aria, M. (2014). *Exploring healthcare governance literature: systematic review and paths for future research.* Mecosan. Link
- Cuccurullo, C., Aria, M., & Sarto, F. (2013). *Twenty years of research on performance management in business and public administration domains.* Academy of Management Proceedings, Vol. 2013, No. 1, p. 14270. https://doi.org/10.5465/AMBPP.2013.14270abstract
- Belfiore, A., Salatino, A., & Osborne, F. (2022). *Characterising Research Areas in the field of AI.* arXiv preprint. https://doi.org/10.48550/arXiv.2205.13471
- Belfiore, A., Cuccurullo, C., & Aria, M. (2022). *IoT in healthcare: A scientometric analysis.* Technological Forecasting and Social Change, 184, 122001. https://doi.org/10.1016/j.techfore.2022.122001
- D'Aniello, L., Spano, M., Cuccurullo, C., & Aria, M. (2022). *Academic Health Centers' configurations, scientific productivity, and impact: insights from the Italian setting.* Health Policy. https://doi.org/10.1016/j.healthpol.2022.09.007
- Belfiore, A., Scaletti, A., Lavorato, D., & Cuccurullo, C. (2022). *The long process by which HTA became a paradigm: A longitudinal conceptual structure analysis.* Health Policy. https://doi.org/10.1016/j.healthpol.2022.12.006