



# Mapping the Digital Marketing Landscape: A Bibliometric Analysis

<sup>1</sup>Tina Seth, <sup>2</sup>Soumya Chowdhury, <sup>3</sup>Shankar Nath Jha

<sup>1</sup>Research Scholar, Faculty of Commerce, Banaras Hindu University, Varanasi, India

<sup>2</sup>Research Scholar, Faculty of Commerce, Banaras Hindu University, Varanasi, India

<sup>3</sup>Professor, Faculty of Commerce, Banaras Hindu University, Varanasi, India

## Abstract

This paper aims to conduct a bibliometric analysis of research papers on the topic of "Digital Marketing" published between 1990 and 2023. The study utilizes data from Scopus and Web of Science databases, integrating them using R software and the biblioshiny package. The findings indicate a growing interest in digital marketing, with a significant increase in publications over time. Marketing Science Journal emerges as the prominent publication in this field, and the USA exhibits the highest research output. The study identifies areas for future research, such as exploring emerging themes and further developing the field of digital marketing. The study acknowledges limitations including a small sample size, lack of a conceptual framework, and narrow selection of keywords. Future research should aim for larger datasets, develop frameworks, and explore a wider range of keywords to enhance understanding in digital marketing. Additionally, incorporating additional software tools can lead to more comprehensive analysis.

**Keywords:** Digital Marketing; Internet Marketing; Online Marketing; Bibliometric; Technology

## 1. Introduction

Over the past two decades, digital marketing (DM) has brought about a paradigm shift in the global marketing landscape by implementing metrics-driven, goal-oriented, interactive, and relationship-based marketing techniques through the use of various electronic media and tools. These include social media, television and radio channels, SMS, email, search engines, websites, mobile apps, electronic billboards, and social networks. The adoption of innovative digital advertising and marketing devices and strategies has facilitated greater convenience, wider reach, cost-effectiveness, and the ability to transcend geographical and temporal barriers (Krishen et al., 2021; Ashrafuzzaman et al., 2022a). Digital marketing has successfully opened up novel avenues to effectively reach, inform, and involve customers while also promoting and selling products and services all over the world and it is expected to continue to lead the way in the ongoing technological revolution in marketing and advertising (Kim et al., 2021a). Consumers are becoming increasingly drawn to digital marketing on a daily basis due to the wide range of product information available. They find digital markets to be the most convenient way to complete purchases from anywhere in the world. Digital marketing not only makes way for companies to attract customers for their products, but it also paves the way for companies to expand their sales all over the world (Ashrafuzzaman et al., 2022b). The term digital marketing was first coined in 1990 when, a new type of competition emerged in response to the launch of the search engine "Archie," which presented companies with unprecedented strategic challenges (Dastane, 2020; *Fostering Innovation, Integration and Inclusion Through Interdisciplinary Practices in Management*, n.d.; Ghorbani et al., 2022). It simply means the marketing of different kinds of products and services digitally or with the usage of different IT tools & techniques which are meant for the advertisement and promotion of products and services (Chauhan Sushil, 2018). It is a new generation of marketing, which includes using the Internet and integrating digital technologies with traditional communications to achieve marketing objectives (Chaffey & Chadwick, 2016). People can also be referred digital marketing as 'online marketing', 'Internet marketing' or 'web marketing' (Fostering Innovation, Integration and Inclusion Through Interdisciplinary Practices in Management, n.d.-b; Sathya, 2015). This is not exactly true in real sense it goes beyond internet marketing and online marketing to include channels that do not rely on the internet. Mobile phones (SMS and MMS), social media marketing, display advertising, search engine marketing, and various

other forms of digital media are all included. Various authors and specialists have conducted analyses and evaluations that highlight a distinction between digital marketing, internet marketing and online marketing. While these terms are often used interchangeably, there is a difference between them. Digital marketing primarily focuses on the Internet, leading to the misconception that digital marketing and Internet marketing are the same. However, they have separate meanings. Internet marketing is a subset of digital marketing, encompassing services like search engine optimization, display advertising, and email marketing (Kumar, 2019). Thus, Internet marketing can be considered a crucial component or subsystem within the broader scope of digital marketing (Minculete & Olar, 2018). This study presents a broad disciplinary review of academic work's contribution to the digital marketing revolution.

The study aims to conduct a bibliometric analysis on digital marketing from 1990 to the present, providing valuable insights into how digital marketing has shaped and continues to shape the field of marketing communication. This analysis also seeks to evaluate the effectiveness of different evaluation approaches, including novel methodologies designed to capture meaningful insights and assess the communication value in the context of Digital Marketing.

**The primary objective of this paper is to address the following research questions:**

## **2. Research Questions**

1. What is the current state of research in the domain of digital marketing and how has it evolved over time?
2. What patterns can be observed in author's productivity and collaboration over time in the field of digital marketing and how do these patterns vary across different universities or regions?
3. What are the global patterns of scientific production and citation impact in digital marketing across countries?
4. What are the common themes and topics in digital marketing research?
5. What are the current themes and future prospects in the field of digital marketing?

## **3. Review of Literature**

Digital marketing is a widely researched topic in the contemporary era due to its immense benefits for both businesses and consumers. As an ever-evolving field within technology, it continually presents new opportunities for researchers across various domains. Consequently, it is an ongoing process of research that necessitates both knowledge and practical application, serving as the precursors to effective e-marketing strategies (Srivastava, 2022). Research conducted in this field has substantiated that digital marketing significantly enhances a firm's performance by providing customers with innovative experiences. Numerous companies leverage digital marketing to bolster their competitive advantage, while scholars have attested to its positive impact on firms' ability to cultivate excellent consumer relationships. The platforms offered by digital marketing provide effective and robust means for promoting products and services (Singh et al., 2022). Moreover, digital marketing has become integral to people's everyday lives globally, exemplifying its transformative effect (Hien & Nhu, 2022). The growing significance of digital marketing has sparked the interest of researchers in conducting bibliometric analyses to uncover crucial insights. These analyses shed light on emerging trends, collaboration patterns, research constituents, and the intellectual structure of the field. One notable bibliometric analysis was conducted by (Faruk et al., 2021a) who utilized the Scopus database to review 925 papers published between 2000 and 2019. The findings revealed that, on average, each paper on digital marketing involved contributions from 2.18 authors, leading to a collaboration index of 2.71. The top contributing countries were identified as the USA, India, and the UK. Another significant contribution to the bibliometric analysis of digital marketing was made by (Kim et al., 2021b) their study focused on the evolution of digital marketing communication, examining 5865 citations of 141 digital-related articles published over a span of 12 years in core journals related to digital marketing communication. By employing both citation and co-citation analyses, the study identified key articles and explored their interrelationships. Similarly (Dunakhe & Panse, 2022) conducted a bibliometric review on the impact of digital marketing. This review encompassed literature published over the past eight years in prominent research journals, utilizing the Scopus database from 2012 to 2020. The findings indicated a significant influence of "Digital Marketing Efforts" on customers' purchase intentions. Furthermore, the study suggested that the distinction between traditional marketing and digital marketing is gradually fading, as digital elements are incorporated into various marketing strategies.

However, there remains a research gap that requires further exploration in ABDC categories. While previous studies have primarily focused on the evolution and impact of digital marketing, a comprehensive bibliometric investigation of the field from its inception in 1990 to 2023 is needed. Incorporating data from both the Web of Science (WOS) and Scopus databases, along with a wider range of bibliometric techniques, in ABDC A\* Category can provide a more holistic and in-depth understanding of the emerging trends, collaboration patterns, and intellectual structure of digital marketing.

## 4. Methodology

### 4.1 Inclusion Exclusion Criteria

Criteria	Scopus	
	Exclude	Include
<b>Search Date:</b> 26- 03- 2023 <b>Database:</b> Scopus <b>Search term:</b> “Digital Marketing” OR “Internet Marketing” OR “Online Marketing”	-	5, 934
<b>Year:</b> 1990-2023	4	5,930
<b>Subject area Scopus:</b> Business Management & Accountancy; Computer Science; Social Science; Engineering; Economics Econometrics & Finance; Decision Science; Arts & Humanities	549	5,381
<b>Document Type:</b> Articles	2,298	3,083
<b>Quality Screening:</b> Australian Business Dean Council (ABDC) List (2022 Journal Quality List)	2058	1,025
<b>Rank A&amp;A*</b>	456	569
<b>Rank A*Only</b>	353	216
<b>Countries:</b> Top 10 Countries US; UK; Australia; France; Germany; China; Neitherland; Finland; India; South Korea	30	186

Table: 1 Summary Statistics Scopus

Criteria	Web Of Science	
	Exclude	Include
<b>Search Date:</b> 28-03-2023 <b>Database:</b> WOS <b>Search term:</b> “Digital Marketing” OR “Internet Marketing” OR “Online Marketing”	-	722
<b>Citations Topics Meso</b>	378	344
<b>Year:</b> 1990-2023	1	343
<b>Document Type:</b> Articles	11	332
<b>WOS categories:</b> Computer Science Information Systems; Operations Research Management Science; Computer Science AI; Telecommunications; Business; Engineering Electrical Electronic; Computer Science Interdisciplinary Application; Computer science theory methods; Management; Information science library science; Multidisciplinay Sciences; Automation Control System; Economics; Computer Science Cybernatics; Computer Science Software Engineering	80	252
<b>Publication Titles:</b> Australian Business Dean Council (ABDC) List (2022 Journal Quality List)	111	141
<b>Rank A&amp;A*</b>	53	88
<b>Rank A*Only</b>	57	31
<b>Countries:</b> Top 10 Countries: USA; China; Taiwan; France; Neitherland; Canada; England; Germany; Israel; Italy	2	29

Table: 2 Summary Statistics Web of Science



## 4.2 Data Integration and Duplicate Record Elimination

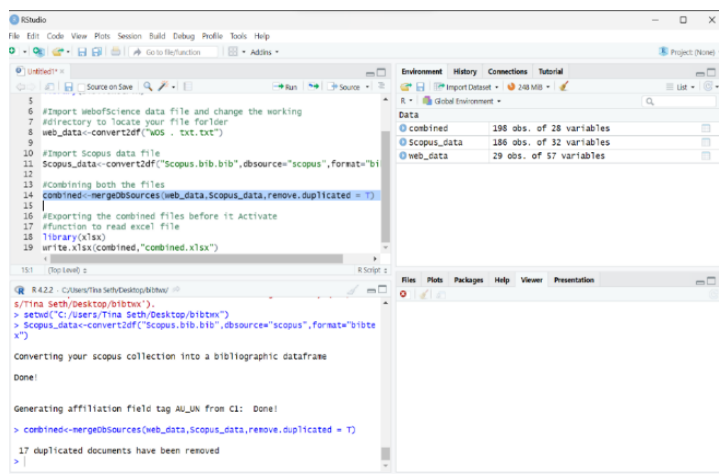


Fig: 1 Merged file of Scopus and WOS

Scops	186
Web of Science	29
Combined	215
Remove Duplicates	17
Records screen for relevance	198
Records excluded	56
Total Documents	142

Table: 3 Research Database Coverage

The bibliometric analysis in this study utilized two prominent databases, Scopus and Web of Science (WOS), focusing specifically on ABDC A\* journals. This selection criterion aims to motivate researchers to contribute to the field of digital marketing by emphasizing the significance of publishing in top-tier journals. Three keywords, namely “Digital Marketing”, “Internet Marketing”, and “Online Marketing”, were chosen for the analysis. These keywords encompass internet-based channels and digital devices, ensuring a comprehensive coverage of the broad field of digital marketing from its inception to the present.

To conduct the bibliometric analysis, the R biblioshiny package was employed, facilitating the integration of data from Scopus and WOS using the R software. Following the removal of duplicates and screening, a total of 142 A\* journal articles were selected for the analysis, originating from 20 distinct sources.

By adopting these methods and procedures, the study aimed to provide a rigorous and standardized approach to bibliometric analysis, enabling a comprehensive examination of scholarly contributions in the field of digital marketing from reputable sources.

S.No.	Source Title	ABDC Ranking List
1.	Marketing Science	A*
2.	European Journal of Marketing	A*
3.	International Journal of Research in Marketing	A*
4.	Industrial Marketing Management	A*
5.	Tourism Management	A*
6.	Journal of Marketing Research	A*
7.	Decision Support System	A*
8.	International Journal of Information Management	A*
9.	Journal of Academy of marketing science	A*
10.	Management Science	A*
11.	Journal of Retailing	A*
12.	Journal of Marketing	A*
13.	International Journal of Hospitality Management	A*
14.	Journal of Travel Research	A*

15.	Analysis of Tourism Research	A*
16.	Journal of Information Management System	A*
17.	Information & Management	A*
18.	American Journal of Agricultural Economics	A*
19.	European Journal of Operation Research	A*
20.	Journal of Business Economics & Statistics	A*
21.	MSOM Manufacturing & Service Operation Management	A*

**Table 4: Top-Ranked Journals in Marketing and Related Fields (ABDC A\* Ranking)**

## **5. Data Analysis**

### **5.1 Analysis of Publication Growth and Trend in Digital Marketing**

Table 5 depicts the evolution and trend of Digital Marketing research, including time span, documents, authors, citations, and many other details. The paper considers the time period from 1990 to 2023, as digital marketing began in 1990. Despite this, the year 1998 is shown in the below diagram due to a lack of academic contributions (published articles and papers) and the data cleaning process. The study used 142 documents from the databases WOS and Scopus. Documents published in Scopus and Web of Science during this time period received an average of 167.9 citations per doc. The higher average citations per document indicate a rapid increase in the number of scholarly papers in the field of Digital Marketing (Faruk et al., 2021b) The findings also revealed that 363 distinct authors contributed to the field of digital marketing during this time period.

<b>Description</b>	<b>Results</b>
<b>MAIN INFORMATION ABOUT DATA</b>	
Timespan	1998:2023
Sources (Journals, Books, etc)	20
Documents	142
Annual Growth Rate %	1.64
Document Average Age	9.68
Average citations per doc	167.9
References	8630
<b>DOCUMENT CONTENTS</b>	
Keywords Plus (ID)	207
Author's Keywords (DE)	520
<b>AUTHORS</b>	
Authors	363
Authors of single-authored docs	10
<b>AUTHORS COLLABORATION</b>	
Single-authored docs	10
Co-Authors per Doc	2.91
International co-authorships %	2.113
<b>DOCUMENT TYPES</b>	
article	142

**Table 5: Growth and Trend of Research in Digital Marketing**

### **5.2 Scientific Publication Statistics**

Below figure 2 presents the results of the annual scientific production of articles in the Digital Marketing field (1998-2023). As shown in Figure 2, the academic contribution in the field of "Digital Marketing " was started in 1998 with 2 articles and with the growth in digital marketing in 2006, 8 documents were published in this area in ABDC A\*; this growth can be attributed to the increasing number of internet and social media users in the 2000s(Faruk et al., 2021c; Ghorbani et al., 2022b) and in 2016, 11 papers were published in this field. In 2018 it came down to 6, and again in 2020, because of covid 19, the number of papers again increased to 8 because Covid 19 gave a boon to digital platforms, which resulted in a shift in the habit of consumers from traditional channels to digital channels(Habib et al.,

2022). Again, 11 papers were published in 2021 and 2022, and 3 papers were published until March 2023; it is expected that with the advancement of this field, more articles will be published in 2023 than in previous years.

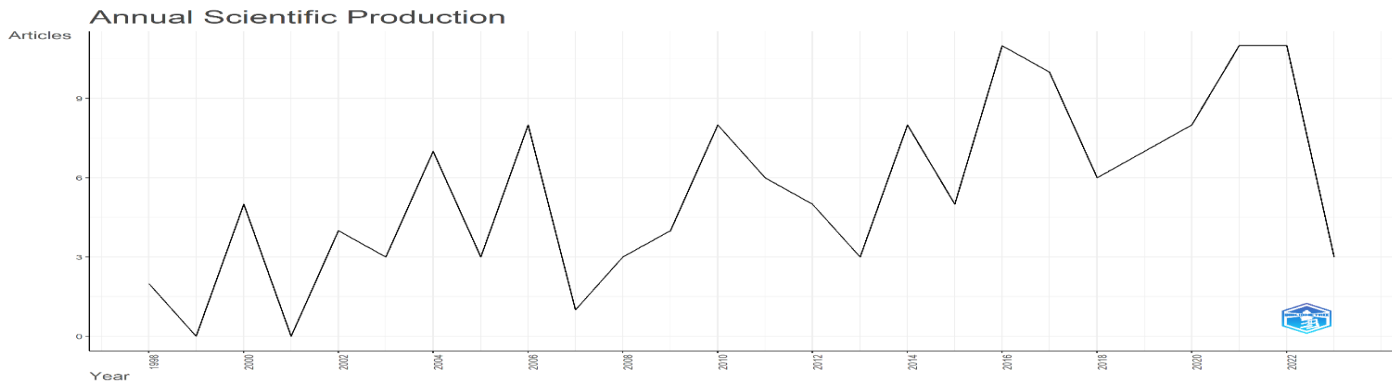


Fig 2: Annual Scientific Production

### 5.3 Relationship between Country, Keywords and Sources

A Three field plot analysis is based on the Sankey diagram, which depicts the flow of values from one set to another. The height of the rectangular nodes is proportional to the frequency of occurrence of the below-mentioned parameters. The number of connections determines the width of the lines connecting the nodes(Koo, 2021) Figure 3 contains the three field analysis showing the relationship between Countries (AU\_CO), Number of occurrence of keywords (DE) and Sources or journals (SO) where the left column indicates Countries, the Middle column indicates Keywords and the right column indicates the Sources or Journals. The diagram depicts that the keyword Internet Marketing, Digital Marketing and Online Marketing is frequently used as a synonym of Digital Marketing. Electronic Commerce, Social Media, Social Media Marketing, Online advertising and many more are also used as a synonym for Digital Marketing.

The figures indicate that "Internet Marketing" has the highest occurrence frequency, followed by "Digital Marketing" and "Online Marketing." The USA is the top contributor in Internet marketing, with the UK and China following suit. For Digital Marketing and Online Marketing, the USA remains the leading contributor, accompanied by the UK and Australia. The most influential journals in these fields are "Marketing Science," "Industrial Marketing Management," and the "International Journal of Research in Marketing." These visualizations provide valuable insights into the relationships between countries, keywords, and sources in Digital Marketing.

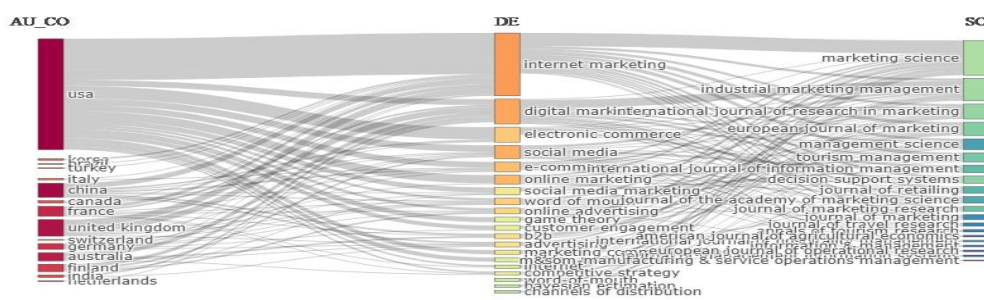


Fig 3: Three- Field Plot

### 5.4 Top Influential Sources in Digital Marketing

Figure 4 depicts the most relevant Digital Marketing sources; the result shows the top 20 journals publishing in the field of Digital Marketing. “Marketing Science – 21”, followed by “Industrial Marketing Management – 19” and “International Journal of Research in Marketing – 17”, and are the top three journals contributing the most to the field of digital marketing, accounting for approx 15%, 13%, and 12% of total publications, respectively. However, the Journal of Marketing Research and Journal of Marketing only contributed 07 and 04 research papers, accounting for approx. 5% and 3%, respectively, which is very low compared to the largest contributing journals. As a result, researchers have the opportunity to publish more articles related to digital marketing in these journals.

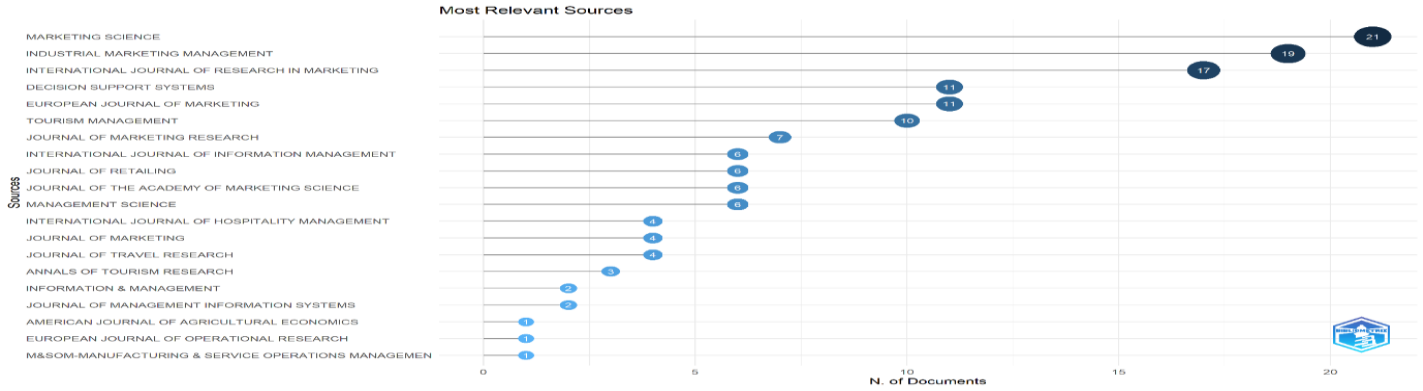


Fig 4 : Most Relevant Source

### 5.5 Bradford's Analysis

Figure 5 depicts information about the core sources using Bradford's law. Bradford's law describes the dispersion of citations for a given subject or field. It can be used to find the most highly cited journals in a particular field or subject (Venable et al., 2016). In the below diagram, the core sources contributing the most to Digital Marketing are Marketing Science, Industrial Marketing Management, and the International Journal of Research in Marketing, confirming the results of the most relevant sources.

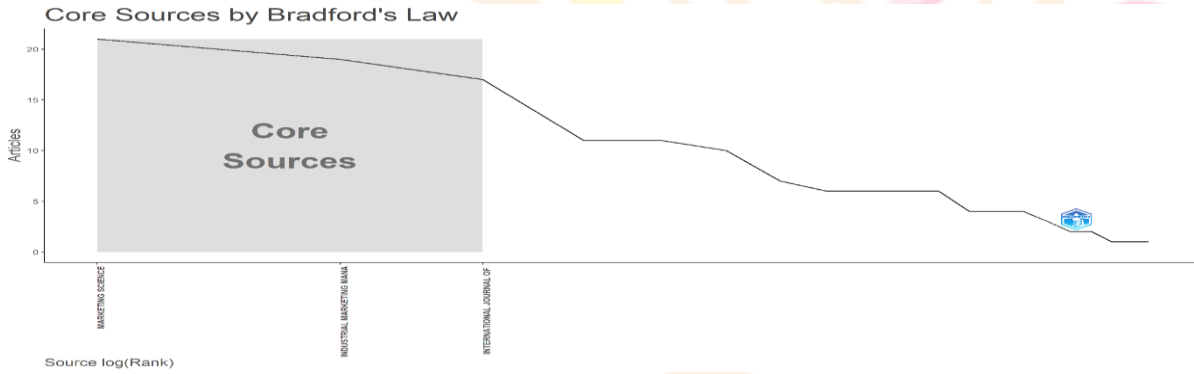


Fig 5: Bradford's Law

### 5.6 Local Impact Analysis: H-Index of Sources

The h-index, also known as the Hirsch index, is defined as the maximum value of h at which a given author/journal has published at least h papers, each of which has been cited at least h times (H-Index, n.d.). Marketing Science has the highest h-index in this study, with a score of 19. An h-index of 19 indicates that at least 19 times this number of publications have been cited. Table 6 and Figure 6 show the journals in order of a number of documents published and impact as measured by the h-index. We can say that the total journals contain 142 articles, with 40% of those articles corresponding to three publications: Marketing Science, Industrial Marketing Management, and International Journal of Research in Marketing.

Element	h index	TC	NP
MARKETING SCIENCE	19	6689	21
INDUSTRIAL MARKETING MANAGEMENT	12	849	19
INTERNATIONAL JOURNAL OF RESEARCH IN MARKETING	11	1978	17
DECISION SUPPORT SYSTEMS	10	671	11
EUROPEAN JOURNAL OF MARKETING	10	530	11
TOURISM MANAGEMENT	10	4525	10
JOURNAL OF MARKETING RESEARCH	7	2993	7
INTERNATIONAL JOURNAL OF INFORMATION MANAGEMENT	6	802	6
JOURNAL OF RETAILING	5	611	6
MANAGEMENT SCIENCE	5	348	6

Table 6: Source local impact by H index



Fig 6: Source local impact by H index

### 5.7 Author's Research Contributions Over Time

Figure 7 depicts the Author's Production over time. It has three dimensions. Time, colour, and size. The line represents the timeline, the intensity of colour represents the impact of the work in terms of citation, and the size of the circles on the timeline represents the percentage of work completed on the timeline (Mukhopadhyay, 2021). The small circle represents one article, and the large circle represents two articles published by authors during that time period. Fesenmaier D, Wang Y, and Zhang J are the most active authors in the below diagram, contributing 4 articles over the period

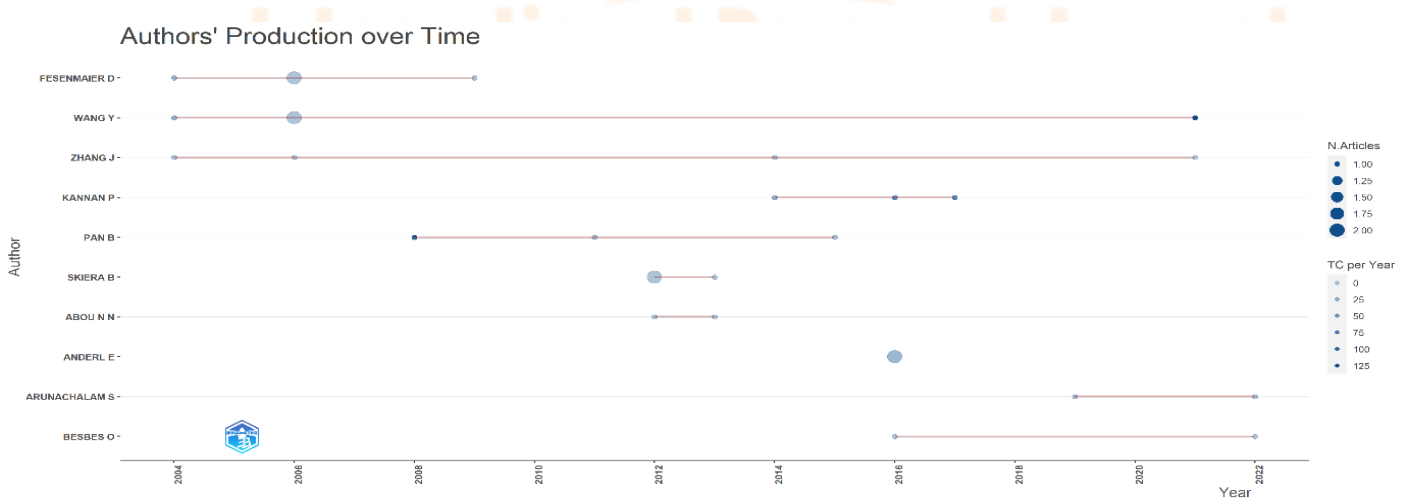


Fig 7: Author's Production Over Time



### 5.8 Affiliations' Publication Trends Over Time of Digital Marketing

Author affiliations are important in research papers because they provide readers with valuable information about the research's origin. Figure 8 displays information about the number of articles contributed by various institutions in the field of digital marketing. Based on this data, the University of Maryland emerges as the most significant institution for the authors who have contributed to this field, having contributed a total of eight articles. This data demonstrates the University of Maryland's importance and relevance in the domain of digital marketing research

Affiliation	Articles
UNIVERSITY OF MARYLAND	8
TEMPLE UNIVERSITY	4
TEXAS A AND M UNIVERSITY	4
UNIVERSITY OF JYVÄSKYLÄ	4
COLUMBIA UNIV	3
HARVARD UNIVERSITY	3
INDIAN SCHOOL OF BUSINESS	3
SWANSEA UNIVERSITY	3
UNIVERSITY OF CENTRAL FLORIDA	3
UNIVERSITY OF NORTH TEXAS	3
UNIVERSITY OF SOUTHAMPTON	3

Table 7: Affiliations Production Over Time

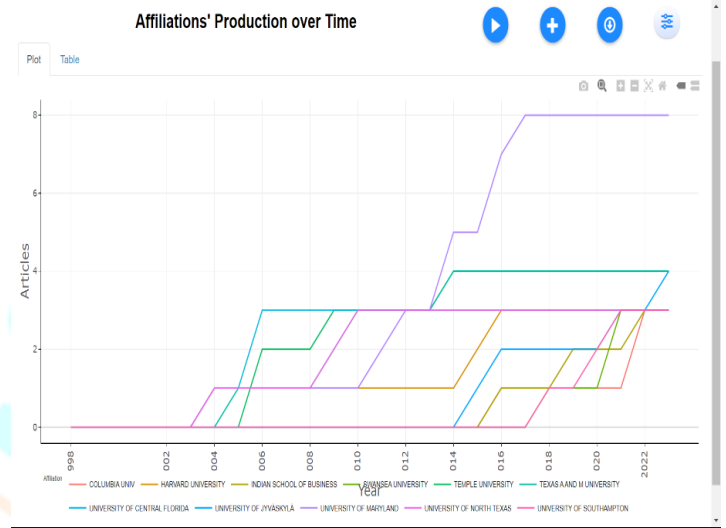


Fig 8: Affiliations Production Over Time

### 5.9. Country Scientific Production in Digital Marketing

The metric of Country Scientific Production gauges the quantity of times an author is associated with a country, based on their affiliations. Essentially, each article is linked to the countries of all its co-authors, and as a result, it is counted multiple times depending on the number of authors involved (*Bibliometrix - FAQ*, n.d.). As per the metric of Country Scientific Production, which considers the frequency of author affiliations with respective countries, the United States has exhibited a remarkable contribution to the digital marketing domain. Trailing closely behind are China and the United Kingdom, with 14 articles. However, it is worth noting that India's contribution to this field has been relatively low, with only 4 articles to its name from the selected journals. This suggests that India has the potential to produce more articles and make a greater impact in the realm of digital marketing.

Region	Freq
USA	96
CHINA	14
UK	14
AUSTRALIA	8
FRANCE	7
GERMANY	6
FINLAND	5
NETHERLANDS	5
INDIA	4
CANADA	2

Table 8: Country's Scientific Production

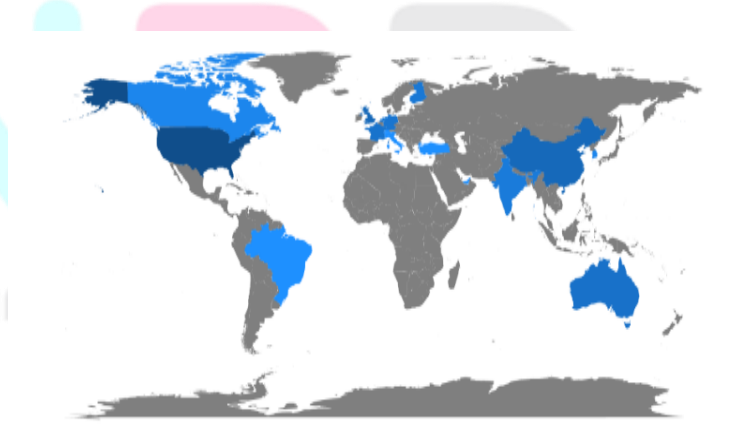


Fig 9: Country's Scientific Production

### 5.10 Examining the Global Leaders in Digital Marketing Research: Insights into the Most Cited Countries

Digital Marketing, being a global field of research, has attracted contributions from various countries across the globe from 1998 to 2023. However, the table below only includes data for the top ten countries, considering total citations

and average citations. The United States has emerged as the leader among these countries, with the highest citation count of 15,566, followed by France and Korea, with citations of 1868 and 808, respectively.

While India ranks among the top ten countries, its citation count is lower than that of the United States, indicating the potential for India to improve its research output in the field of Digital Marketing. This emphasises the importance of Indian researchers conducting in-depth studies and producing high-quality research papers to significantly contribute to the ever-changing domain of Digital Marketing.

Country	TC	Average Article Citations
USA	15566	273.1
FRANCE	1868	311.3
KOREA	808	202
FINLAND	789	98.6
CHINA	749	74.9
UNITED KINGDOM	732	73.2
NETHERLANDS	272	68
INDIA	253	126.5
GERMANY	225	37.5
AUSTRALIA	145	29

**Table 9 : Most cited countries**

### 5.11 Word cloud analysis

The image and table below show a word cloud of author keywords related to digital marketing, internet marketing, and online marketing, generated with the Bibliometrix software's Biblioshiny App. The goal of using a word cloud is to identify the most frequently used terms, which are likely to contain the majority of the analysis in the field. A word cloud, also known as a tag cloud, converts textual data into identifiers that are typically single words, the relative importance of which is represented in the cloud by their colour (R. R. Patil et al., 2023). Graphical parameters were used to select author keywords, which provide insights into major topics and research trends (S. B. Patil, n.d.). The number of keywords was limited to 50, and for visualisation, a circular colour shape was chosen. The text was done in dark random colours. The table 10 shows the top 50 author keywords and their frequencies, while Figure 10 shows a visualisation of the top 50 most commonly used author keywords. According to the table below, the most frequently occurring author keyword is "internet marketing," which appeared 49 times. The second most frequently used keyword is "digital marketing," which was used 30 times, while "online marketing" was used only 11 times.

Terms	Frequency
internet marketing	49
digital marketing	30
social media	16
online marketing	11
e-commerce	10
electronic commerce	9
word of mouth	8
online advertising	7
b2b	6
advertising	5

**Table 10: Word cloud**



**Fig 10: Word cloud**

### 5.12 Thematic Map Analysis

The authors' keyword clusters and their connections are used in the thematic analysis to derive themes. These themes are defined by the Properties i.e., centrality and density. The vertical axis is used to represent density, and the

horizontal axis is used to represent centrality. While density gauges the interconnectedness of the nodes, centrality measures the degree of correlation between various topics. These two characteristics assess a topic's importance and degree of development. A node's centrality and importance increase along with the number of relationships it has with other nodes in the thematic network, placing it in an essential position. Similarly, a research field's ability to grow and sustain itself is defined by the cohesiveness of the nodes that make up its density. The thematic map of digital marketing, which is divided into four quadrants (Q1 to Q4), is shown in Figure 11. Driving themes are embodied in the upper right quadrant (Q1), underlying themes are embodied in the lower right quadrant (Q4), highly specialised themes are exhibited in the upper left quadrant (Q2), and emerging or disappearing themes are exhibited in the lower left quadrant (Q3)(Agbo et al., 2021).

Notably, themes like digital marketing, social media marketing, and business-to-business shows greater intensity and centrality in the below figure. it is worth noting that the thematic clusters with the greatest centrality and density have the strongest connections to the other thematic clusters(Mühl & de Oliveira, 2022).

Motor themes that are well-developed and capable of structuring the research field include Internet marketing, e-commerce, and competitive strategy shows in Q1. In Q4, topics like electronic commerce and word-of-mouth marketing represent less developed but still vitally important subjects for the digital marketing field. Furthermore, the findings suggest that Q2 themes such as online advertising, attribution, and decision support systems have untapped potential and need greater integration into digital marketing. The theme in Q3, online marketing, word of mouth, and search engines, is an emerging theme that highlights the fundamental and essential aspects of digital marketing. In conclusion, more efforts are needed to foster the development of themes such as online advertising, attribution, and decision support systems that could significantly contribute to the field of digital marketing.

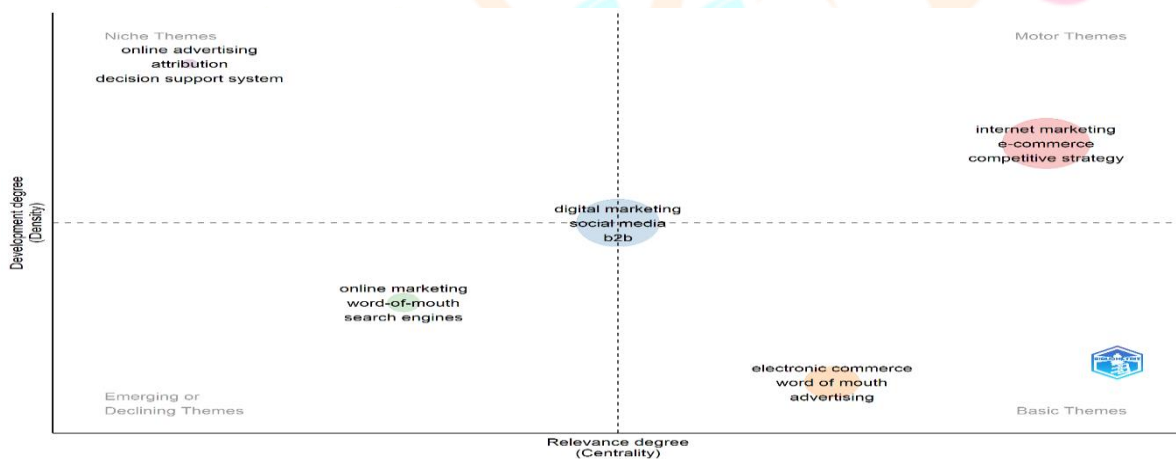
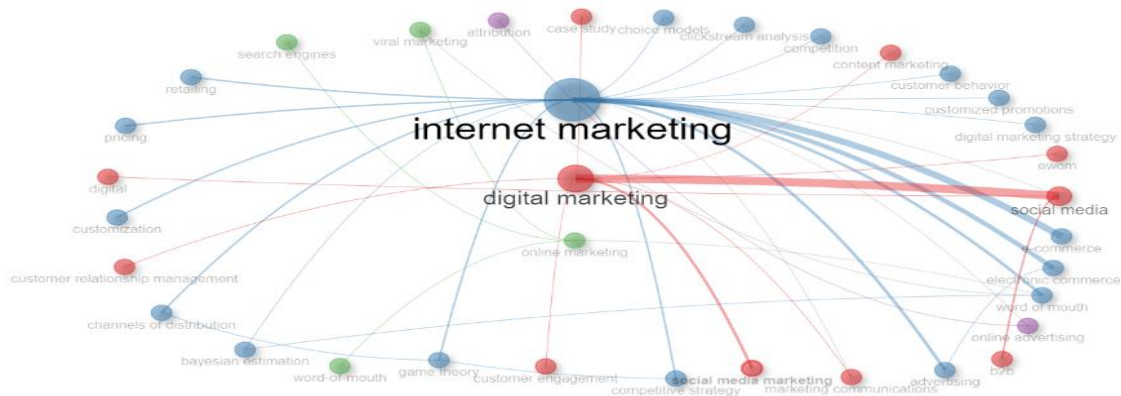


Fig 11: Thematic Map

### 5.13 Co-occurrence Network Analysis

The co-occurrence network provides valuable insights into the relationships between keywords and their role in various research themes, specifically shedding light on the significance of digital marketing in today's marketing landscape. The network analysis reveals "internet marketing" as the most significant research theme, closely associated with "e-commerce." This highlights the critical role of e-commerce in digital marketing. Additionally, the "digital marketing" cluster is prominently linked to social media, emphasizing its growing importance in marketing strategies. While there are weaker associations with customer relationship management and customer engagement, further research can explore their role in digital marketing. The network also recognizes the significance of "word of mouth" and "search engines" in the realm of online advertising within the "online marketing" node.



**Fig 12: Co- occurrence Network**

## **6. Findings and future research direction**

The paper provides valuable insights into the field of digital marketing in India and its implications. The analysis reveals that digital marketing research has gained momentum since 1998, with a steady increase in publications, particularly in recent years. "Internet marketing" and "digital marketing" are the most commonly explored keywords. Marketing Science journal emerges as the leading source in the field, with the USA being the top contributing country. Prolific authors such as Fesenmaier D, Wang Y, and Zhang J have made significant contributions, with the University of Maryland playing a prominent role in advancing research. The global patterns of scientific production indicate the USA as the leader, with India having a lower presence. There is an opportunity for Indian scholars to contribute more to digital marketing research and publish in ABDC A\* journals for increased visibility and recognition. The word cloud analysis highlights "internet marketing" and "digital marketing" as key areas of focus, with potential subdomains like social media marketing, e-commerce, and search engine optimization requiring further exploration. Overall, the analysis emphasizes the need for continued research and development in digital marketing to keep pace with evolving trends and address emerging themes. Further future research can be conducted to explore the impact of digital marketing in various areas by integrating data from multiple sources beyond the ones mentioned.

## **7. Conclusions**

This bibliometric analysis provides a comprehensive understanding of digital marketing, its emerging trends, and future prospects. By focusing on ABDC A\* journals from 1990 to 2023, the study highlights significant contributions, identifies relevant sources, and explores global patterns of scientific production. Utilizing co-occurrence networks and thematic analysis, the study uncovers emerging patterns, identifies research opportunities, and motivates further contributions in high-impact journals. As technology shapes the field, the research in digital marketing continues to expand. Future research can explore specific sectors or industries and utilize alternative tools for analysis. Overall, this analysis sets the stage for future research contributions, emphasizing the need for increased research in digital marketing and its growth and development.

## **8. Limitations**

The study has limitations that should be acknowledged, including a small sample size, lack of a conceptual framework, a narrow selection of keywords, reliance on a specific time frame, and limited use of qualitative methods. Additionally, the study's reliance on specific databases may result in incomplete coverage of relevant literature. Future research should aim for larger and more diverse datasets, develop comprehensive conceptual frameworks, explore a wider range of keywords, consider the inclusion of additional qualitative methods, and utilize multiple databases to ensure a more comprehensive and robust analysis of digital marketing research. Addressing these limitations will enhance the validity and applicability of findings in this field.



**References:**

- Agbo, F. J., Oyelere, S. S., Suhonen, J., & Tukiainen, M. (2021). Scientific production and thematic breakthroughs in smart learning environments: a bibliometric analysis. *Smart Learning Environments*, 8(1). <https://doi.org/10.1186/s40561-020-00145-4>
- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959-975.
- Ashrafuzzaman, M., Rishat, A. S. A. H., Hossain, M. S., & Alam, M. T. (2022b). The impact of social media and digital marketing on consumer behavior. In *Handbook of Research on Consumer Behavior Change and Data Analytics in the Socio-Digital Era* (pp. 275–294). IGI Global. <https://doi.org/10.4018/978-1-6684-4168-8.ch012>
- Bibliometrix - FAQ*. (n.d.). Retrieved April 13, 2023, from <https://www.bibliometrix.org/home/index.php/faq>
- Chaffey, D., & Chadwick, E. F. (2016). *Digital Marketing strategy, Implementation and Practice* (Pearson).
- Chauhan Sushil. (2018). *A Study on the Impact of Digital Marketing on Indian Firms*. Dastane, O. (2020). Impact of Digital Marketing on Online Purchase Intention: Mediation Effect of Customer Relationship Management. *Journal of Asian Business Strategy*, 10(1), 142–158. <https://doi.org/10.18488/journal.1006.2020.101.142.158>
- Dunakhe, K., & Panse, C. (2022). Impact of digital marketing – a bibliometric review. In *International Journal of Innovation Science* (Vol. 14, Issues 3–4, pp. 506–518). Emerald Publishing. <https://doi.org/10.1108/IJIS-11-2020-0263>
- Faruk, M., Rahman, M., & Hasan, S. (2021). How digital marketing evolved over time: A bibliometric analysis on scopus database. In *Heliyon* (Vol. 7, Issue 12). Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2021.e08603>
- Fostering Innovation, Integration and Inclusion Through Interdisciplinary Practices in Management*. (n.d.).
- Ghorbani, Z., Kargaran, S., Saberi, A., Haghhighinasab, M., Jamali, S. M., & Ale Ebrahim, N. (2022). Trends and patterns in digital marketing research: bibliometric analysis. *Journal of Marketing Analytics*, 10(2), 158–172. <https://doi.org/10.1057/s41270-021-00116-9>
- h - index*. (n.d.). Wikipedia.
- Habib, S., Hamadneh, N. N., & Hassan, A. (2022). The Relationship between Digital Marketing, Customer Engagement, and Purchase Intention via OTT Platforms. *Journal of Mathematics*, 2022. <https://doi.org/10.1155/2022/5327626>
- Hien, N. N., & Nhu, T. N. H. (2022). The effect of digital marketing transformation trends on consumers' purchase intention in B2B businesses: The moderating role of brand awareness. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2105285>
- Kim, J., Kang, S., & Lee, K. H. (2021). Evolution of digital marketing communication: Bibliometric analysis and network visualization from key articles. *Journal of Business Research*, 130, 552–563. <https://doi.org/10.1016/j.jbusres.2019.09.043>
- Koo, M. (2021). Systemic lupus erythematosus research: A bibliometric analysis over a 50-year period. *International Journal of Environmental Research and Public Health*, 18(13). <https://doi.org/10.3390/ijerph18137095>
- Krishen, A. S., Dwivedi, Y. K., Bindu, N., & Kumar, K. S. (2021). A broad overview of interactive digital marketing: A bibliometric network analysis. In *Journal of Business Research* (Vol. 131, pp. 183–195). Elsevier Inc. <https://doi.org/10.1016/j.jbusres.2021.03.061>
- Kumar, R. M. (2019). A Study on Customer Engagement and Loyalty towards the Digital Marketing. *International Journal for Research in Applied Science and Engineering Technology*, 7(9), 1079–1087. <https://doi.org/10.22214/ijraset.2019.9153>
- Minculete, G., & Olar, P. (2018). Approaches to the Modern Concept of Digital Marketing. *International Conference KNOWLEDGE-BASED ORGANIZATION*, 24(2), 63–69. <https://doi.org/10.1515/kbo-2018-0067>

Mühl, D. D., & de Oliveira, L. (2022). A bibliometric and thematic approach to agriculture 4.0. *Heliyon*, 8(5). <https://doi.org/10.1016/j.heliyon.2022.e09369>

Mukhopadhyay, M. (2021). Consumer Studies in the 21st Century: A Bibliometric Case Study. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3847219>

Patil, R. R., Kumar, S., Rani, R., Agrawal, P., & Pippal, S. K. (2023). A Bibliometric and Word Cloud Analysis on the Role of the Internet of Things in Agricultural Plant Disease Detection. *Applied System Innovation*, 6(1). <https://doi.org/10.3390/asi6010027>

Patil, S. B. (n.d.). *Global Library & Information Science Research seen through Prism of Biblioshiny*. <https://www.researchgate.net/publication/339973834>

Sathya, P. (2015). A Study on Digital Marketing and its Impact. In *International Journal of Science and Research* (Vol. 6). [www.ijsr.net](http://www.ijsr.net)

Singh, S., Singh, G., & Dhir, S. (2022). Impact of digital marketing on the competitiveness of the restaurant industry. *Journal of Foodservice Business Research*. <https://doi.org/10.1080/15378020.2022.2077088>

Srivastava, G. (2022). Antecedents of E-Marketing of Agriculture Products in This Digital Era: An Empirical Study. *International Journal of Technology and Human Interaction*, 18(7). <https://doi.org/10.4018/IJTHI.306228>

Venable, G. T., Shepherd, B. A., Loftis, C. M., McClatchy, S. G., Roberts, M. L., Fillinger, M. E., Tansey, J. B., & Klimo, P. (2016). Bradford's law: Identification of the core journals for neurosurgery and its subspecialties. In *Journal of Neurosurgery* (Vol. 124, Issue 2, pp. 569–579). American Association of Neurological Surgeons. <https://doi.org/10.3171/2015.3.JNS15149>

