

DOI: 10.5281/zenodo.19671527

MAPPING THE INTELLECTUAL LANDSCAPE OF VIRAL MARKETING: A BIBLIOMETRIC APPROACH

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Received: 20/02/2026

Accepted: 31/03/2026

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ABSTRACT

The present research is a bibliometric study of scholarly publications on the topic of viral marketing that was published in 2020-2025, a time marked by an accelerated technological advancement and a societal upheaval. Biblioshiny, a module in Bibliometrix R package, was used to conduct an examination of corpus of 269 publications in 139 journals. The research questions are explored on the basis of publication patterns, co-authorship patterns, patterns of key word co-occurrence, and institutional productivity. Results indicate steady increases in the number of publications with sharp increases in 2020-2021. The thematic areas of interest include social media marketing, influencer marketing, and consumer engagement, and emerging areas of interest, including TikTok, artificial intelligence, and data-driven analytics, reflect the changes in technology. The findings highlight the interdisciplinary and international expanding nature of viral marketing studies. The analysis defines the intellectual architecture and recent development of theme, making the study a good contribution to the discipline.

KEYWORDS: Viral Marketing , Social Media Marketing ,Influencer Marketing, Consumer engagement, Bibliometric Analysis.

1. INTRODUCTION

The digital era has transformed the processes of information, product, and message generation, dissemination, and consumption substantially. The rapid development of social media, the increased involvement of users in online communities, and the ongoing globalization of users have transformed communicative relations in business and society (Kapitan and Silvera, 2016; Martin-Martin et al., 2021). In the same context, viral marketing is a powerful marketing approach that leverages the power of peer-to-peer communication and network effects to spread a marketing message very fast on online platforms (Hinz et al., 2011). Viral marketing does not require the same effort as traditional advertising, which uses controlled distribution and premeditated exposure to messages, but rather, viral marketing uses voluntary sharing of messages by consumers. It rides on social contagion, network effects, emotional involvement, and consumer advocacy to enhance brand communications in an organic manner (Dobele et al., 2007; Tellis et al., 2019). In the process, consumers will be turned into active content distributors of marketing information, which will help expand the scope of the message, its reputation, and involvement. The spread of digital platforms like Facebook, Instagram, YouTube, TikTok, and so on has only enhanced the trend in the spread of viral marketing. Such platforms provide fast diffusion of content and allow brands to address audiences in various fields such as entertainment promotion, consumer goods advertisement, communicating public health, and promoting political messages (De Veirman et al., 2017; Nelson-Field et al., 2013). The COVID-19 crisis further accelerated the utilisation of the digital communication channel, as organizations and their government resorted to online communication to keep stakeholders engaged at a time when physical interactions were limited (Li et al., 2021; Pulido et al., 2020). This change demonstrated the strategic relevance and flexibility of viral marketing during disruption of society. At the same time, viral marketing has become a multidisciplinary field of study at the interplay of marketing, communication studies, psychology, and computer science. There are multiple motivation factors of virality analysed by scholars, such as emotional arousal, social influence, brand prominence, network topology, and algorithmic amplification (Berger and Milkman, 2012; Tellis et al., 2019). This expansion of the methodological sophistication of the field shows itself in the rising use of computational tools and big-data analytics (Gopalakrishnan and Venkatesan,

2020). The literature is still scattered among journals and disciplines, and the overall scope of the intellectual organisation of the field cannot be described even with the increased amount of publications. Bibliometric analysis provides a quantitative and systematic way of mapping scientific knowledge and collaboration networks and identifying their evolution around a certain theme (Aria and Cuccurullo, 2017; Donthu et al., 2021). Bibliometric studies in similar fields carried out in the past have already shown how methods of science mapping can be used to identify knowledge production trends and institutional relationships (Bornmann and Leydesdorff, 2014; Zyoud, 2021). Nevertheless, the overall bibliometric synthesis on the topic of viral marketing is still sparse and considers viral marketing studies in the period of the most active digital transformation, 2020-2025. This paper fills this gap by employing bibliometric techniques to chart the publication patterns, co-authorship patterns, keyword co-occurrence patterns, and the contributions made by the institution in this period of time. In this way, it aims to give us a systematic overview of the recent development of viral marketing scholarship and help single out the new research directions.

2. LITERATURE REVIEW

Ever since the phenomenon of viral marketing first emerged in the late 1990s and early 2000s, it has come under continuous academic scrutiny, as scholars struggle to understand the reasons as to why some messages spread faster than others. Initial ideas defined viral marketing as an online enhancement of word-of-mouth communication, with a high emphasis on the peer-to-peer relationships and voluntary sharing of messages (Dobele et al., 2007). Unlike the traditional advertising systems based on two-way communication, viral marketing is more effective due to the network effects and increased consumer engagement; hence, it fits well with the social contagion and diffusion of innovation theories. Hinz et al. (2011) empirically proved that the seeding strategies and positioning in the network have a significant impact on the propagation of marketing messages. Their results supported the significance of network structure and strategic targeting in stimulating the viral dissemination. These initial works developed the theoretical basis that virality is not a random process, but there are recognisable structural and behavioural processes to regulate it. There is extensive research on the psychological determinants of viral content. Berger and Milkman (2012) have found emotional arousal to be an

important driver of online content sharing, and that high-arousal emotions, including awe, anger, and anxiety, make it more likely that the message will spread. Nelson-Field *et al.* (2013) also found the same result and indicated a synergistic relationship between video advertising emotional intensity and ensuing sharing behaviours. The study by Tellis *et al.* (2019) also developed this research question by showing that information richness, emotional appeal, and brand prominence are combined in the sharing of digital content. These results express the view that the issue of virality is not only determined by the network structures but also by cognitive and emotional reactions caused by them in viewers. As social media networks have gained momentum, the focus of research has changed to influencer marketing and online opinion leaders. Kapitan and Silvera (2016) looked at the role of credibility and authenticity in determining the performance of digital endorsers. Equally, De Veirman *et al.* (2017) demonstrated that the influencer traits (the number of followers and perceived expertise) influence the brand attitudes and the spread of messages. Viral marketing strategies have been further changed with the appearance of platform-specific dynamics (e.g., Instagram, TikTok, YouTube). These platforms have algorithmic amplification processes, meaning that virality on these platforms is not entirely interpersonal sharing but, at least in part, technological affordance. This movement indicates the increasing interaction between social influence and computational mediation. The current research is manifesting a growing methodological sophistication in the study of viral marketing. The combination of big data analytics, machine learning, and network modelling has facilitated more accurate prediction and control of the process of viral diffusion (Gopalakrishnan & Venkatesan, 2020). Computational methods enable researchers to examine large sample data of user interaction and reveal concealed network interactions and dynamics of contagion. Such a shift in the analysis to use data will be a wider interdisciplinary convergence between marketing and computer science and data analytics. Viral marketing is no longer researched only in terms of behaviour but also in terms of algorithmic modelling as well as quantitative modelling. The COVID-19 pandemic was a major turning point in the research of digital communication. In times of limited physical contact, organizations, governments, and public-health institutions had to depend more on digital platforms to disseminate information (Li *et al.*, 2021). Pulido *et al.* (2020) identified that science-based health

information retweets higher than misinformation showed the societal effect of the viral systems of communication. The pandemic hastened the use of digital in the world and increased the academic relevance of the topic of online message diffusion. Nevertheless, although several empirical studies have been published in this time, the systematic synthesis of how the viral marketing research has been changed in this disruption is still not done in large numbers. The bibliometric analysis has already gained recognition as a technique of tracing the history of science and structures of thought in the various disciplines. Bibliometrix is a new science mapping tool proposed by Aria and Cuccurullo (2017), which allows performing co-authorship network, thematic development, and knowledge structure analysis. Donthu *et al.* (2021) gave methodological tips on how rigorous bibliometric research should be carried out in the fields of business and management. Bibliometric studies have been conducted by researchers in the past to map research trends in their related fields, including scientometrics (Bornmann and Leydesdorff, 2014) and pandemic research (Zyoud, 2021). Such studies prove the usefulness of bibliometric tools in the process of determining powerful authors, thematic groupings, and collaboration schemes. Although the amount of new viral marketing research is developing, a sparse bibliometric mapping of the recent era of increased digital transformation in 2020-2025 is still insufficient. Since the technological, societal, and platform-based changes occur fast within this period, it is justified to conduct a systematized bibliometric study to summarize disjointed information and determine the new areas of research.

2.1. Research Objectives

The following objectives have been considered for the current study.

1. To examine annual publication growth.
2. To analyse collaboration patterns using co-authorship networks
3. To identify thematic evolution through keywords occurrence .
4. To assess the institutional productivity and geographical distributions.
5. To map the intellectual structure of viral marketing research.

3. METHODOLOGY

The bibliographic information concerning the given study was accessed through the Web of Science (WoS) Core Collection, which was chosen because of

its high indexation level, broad coverage of citation, and the structured metadata that can be used to conduct bibliometric analysis. Web of Science is also well accepted in terms of providing credible data to science-mapping research since this database will guarantee the conformity of citation tracking and strict journal quality filtering. A topic search query (TS = "viral marketing") was employed to search the data and include the instances of the word in the titles, abstracts, and author keywords as well as Keywords Plus. The search was narrowed down to the last 5 years (2020-2025) and peer-reviewed journal articles in English. Conference proceedings, book chapters, editorial materials, and non-English materials were not used to make sure that the results are consistent and comparable. The data set that was left and analysed following screening and elimination of duplication records consisted of 269 articles. The records retrieved were exported into RIS format and then converted to CSV format to make them compatible with bibliometric analysis software. The cleaning of the data was done in a systematic manner to increase the credibility of the data. The names of the authors were made consistent to eliminate the irregularities of initials, abbreviations, and spelling inconsistencies and reduce errors in the productivity and collaboration studies. The names of journals were standardised to ensure consistency in abbreviated and full titles. To help the analysis of the co-occurring keywords, a normalisation of keywords processing, including the merging of synonyms and orthographic forms thereof, was applied to eliminate redundancy and improve the quality of the analysis. All these steps were taken to make sure that the data was coherent, valid, and capable of further analysis.

BiblioShiny was used as the web interface of the Bibliometrix R package to perform the bibliometric analysis. It is a tool that allows an extensive science map and statistically reproducible analysis. The analysis involved the trends of annual publications in an evaluation of the trends in temporal growth in the viral marketing research within the period studied. Co-authorship network analysis was conducted to investigate the structures of collaboration between the researchers, and the visualization of its networks was restricted to the top 60 most prolific authors to enhance the interpretability and demonstrate the principal contributors in the domain. Author keyword analysis was utilized as the method of the keyword co-occurrence analysis, bearing in mind a minimum number of occurrences of five to narrow the keyword search to the major research topics and new issues.

The measurements of institutional productivity were done through the examination of author affiliations, and the 15 leading institutions were determined in terms of the volume of publications in order to investigate the tendencies of geographic and organizational concentration.

Bibliometric analysis is a methodological and quantitative way to map the intellectual framework and development of a research area. This approach will minimize subjective bias associated with narrative reviews and provide a systematic survey of scholarly trends through the analysis of publication output, collaboration networks, thematic development, and institutional contributions. However, there are some limitations to be taken into consideration. The research is solely based on the Web of Science database, and this could have omitted other pertinent publications that are contained in other databases like Scopus. Moreover, the analysis concentrates more on the publication output, over the citation-based impact measures, and this constrains the measurement of the scholarly influence. Nevertheless, all these limitations notwithstanding, the methodological approach presents an informative and clear structure to the recent evolution of the viral marketing research between 2020 and 2025.

4. RESULTS & DISCUSSIONS

Objective 1: Annual Publication Growth

The trend of the annual scholarly output (Figure 1) demonstrates the stable increasing tendency of producing viral-marketing research within the study period. The most significant increase was in 2020 and 2021. Although it is impossible to infer causation, the increased growth comes during the COVID-19 pandemic, which has been characterised by both increased digital dependence and a faster rate of platform adoption. It seems that the pandemic increased the academic attention to online communication systems, online consumer communication, and content dissemination via algorithms. In the wake of the initial spurt, the volume of publication did not drop, but instead levelled off, indicating the fact that viral-marketing research has already passed an emergency, pandemic-driven, phase and is already at a more sustainable, structurally ensconced research stream. This stabilisation is perhaps a sign of field maturation, in which basic themes are becoming solid as new technological lines are being created. The noted growth trend is indicative of greater changes in online ecosystems and it makes sense in relation to previous research that underscores the

growing strategic significance of online word of mouth and social contagion processes in times of social upheaval (Dobele *et al.*, 2007; Li *et al.*, 2021). On the whole, the change in the trend of publication proves that viral marketing is no longer a niche based research in the study, but a stable and growing branch.

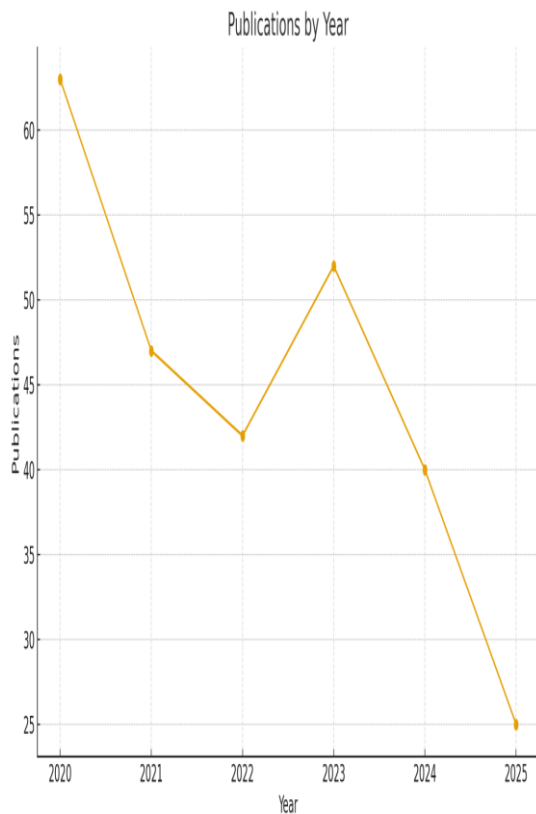


Figure 1: Publications by Year.

Source: Output from Biblioshiny.

Objective 2: To analyse collaboration patterns using co-authorship networks

With a total of 22 names on the co-authorship network (Figure -2), it is clear that there exists a very collaborative and interconnected world of scholars. The existence of various clusters is suggestive that there exists several research communities that are distinct, but they overlap each other. Some of the authors are like connecting nodes of clusters, implying intellectual integration across disciplinary lines. It is an interdisciplinary structure as viral-marketing research is inherently multi-disciplinary. Combination of the marketing theory, communication studies, psychology and computational modelling can be observed in collaborative patterns. It is also widely supported by the fact that most publications that were published recently in this area were multi-authored and there

are evidence of cross-disciplinary experience of the research most strongly in the area of intersection of behavioural and algorithmic approaches. Structurally, the density of network and clustering patterns indicate that viral-marketing research has achieved level of an intellectual consolidation. Glanzel and Schubert (2005) explain that similarity in co-authorship networks implies maturity in the discipline. The bridging scholars who are found in the network can be viewed as knowledge integrators, who can theoretically cross-fertilise behavioural and computational paradigms. Therefore, patterns of collaboration have not only shown productivity, but also shown the changing structure of knowledge in the field.

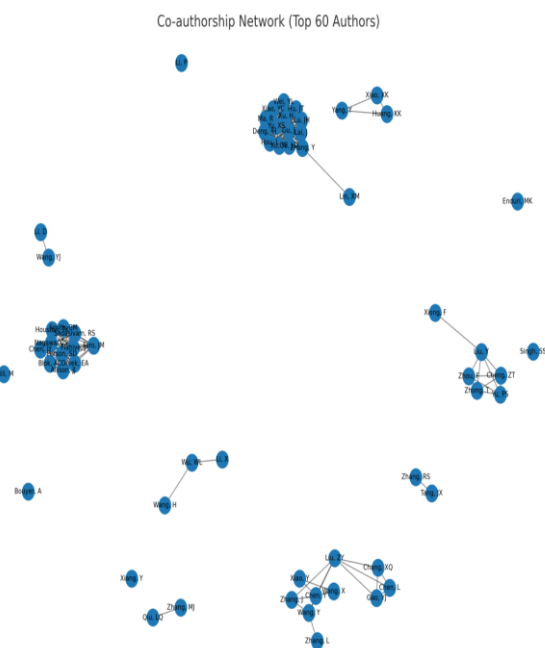


Figure 2: Co-authorship Network (Top 60 Authors).

Source: Output from Biblioshiny.

Objective 3: To identify thematic evolution through keywords occurrence

The analysis of the third objective was performed through the analysis of the key words co-occurrence (Figures 3 and 4) to find out the topics of research (established and developing) as well. Specific issues related to social media, influencer marketing, and consumer engagement represent central motifs that help to highlight the importance of digital interpersonal influence in the field. Such themes as nascent ones, such as Tik Tok, machine learning, and AI-driven marketing, indicate an increasingly larger integration of technology. The aggregation of computing algorithms and platform-based

percentage of articles. This concentration is a reflection of the general distribution of research productivity, where rich institutions have a disproportionate influence (Bornmann & Leydesdorff, 2014; Marginson, 2016). Nevertheless, the increasing engagement of new universities in Asia and Latin America is indicative of a snail-step democratisation of viral marketing scholarship, which makes the field increasingly relevant worldwide. The evolution is analogous to Fry et al. (2020) discovery of more inclusive collaboration networks due to pandemic, that could be rationalized with an extension in the dissemination of knowledge creation to other regions away from the traditional academic centres.

Objective 4: To assess the institutional productivity and geographical distributions

Figure 5 of the institutional analysis reveals that the research output is concentrated between the established world universities. The concentration is

consistent with higher levels of research productivity in which institutions are more likely to be significantly productive in publishing in cases where the institution has more funding, greater digital infrastructures and is connected internationally (Bornmann & Leydesdorff, 2014). Nevertheless, the information also signifies that contributions by institutions in both Asia and Latin America have also shown gradual growth. This diversification implies that there will be a stronger democratisation of digital-marketing knowledge, which can probably be enabled by the international availability of digital platforms and online data. The globalisation of the digital markets is reflected in the geographical spread of the viral-marketing research. With the social-media adoption being universal, the research interest also diffuses. Such an expansion increases the international utility of the field and outlines a prospective possibility of comparative, cross-cultural studies.

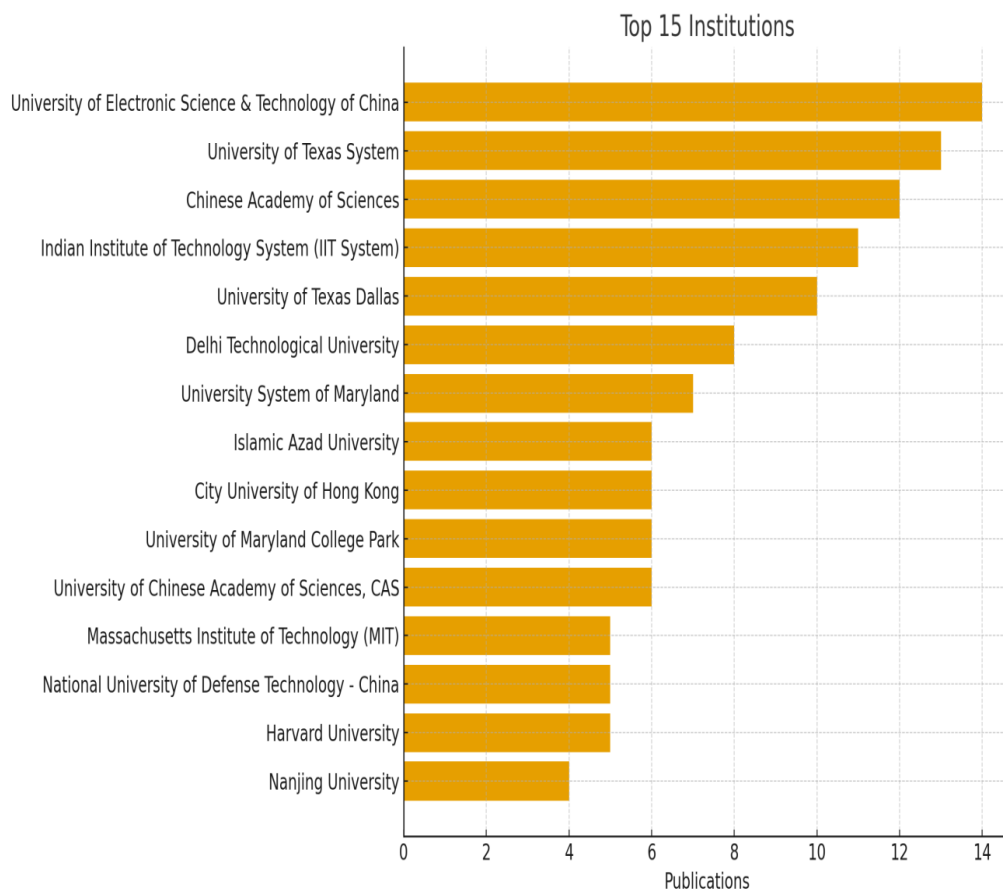


Figure 5. Top 15 Institutions by Publications.

Source: Output from Biblioshiny.

Objective 5: To map the intellectual structure of viral marketing research

Collectively, the results of the analysis of growth

of publications, system of links between publications and thematic clusters of works and institutional patterns allow creating an overall map of the

structure of intellectual work on the topic of viral-marketing research. Three macro-level attributes manifest themselves: 1. The ability to grow and consolidate long term- stability in the field. 2. The convergence of interdisciplinary behavioural and computational sciences. 3. Algorithms and AI incorporation: technological redefinition. These features indicate the fact that viral-marketing studies have transcended the exploratory research to a systematic, interconnected, and technology-intensive field globally. Intellectual architecture depicts continuity of theories and adaptive innovation. The discipline seems to be developing in two parallel directions: 1. Elaborating behavioural insights on the diffusion of messages. 2. Growing predictive analytics and computational modelling. This twofold path can bracket up the second stage of research growth.

5. CONCLUSION & RECOMMENDATION

The present study presents a bibliometric mapping of the published works on viral marketing studies within the period 2020-2025 using the data on the Web of Science Core Collection. The results show a persistent increase in academic production, especially in the early years of the pandemic, which is an expression of the growing strategic quality of the digital communication and online diffusion mechanisms. The analysis of collaborations proves that the research community is highly connected and

interdisciplinary, whereas the analysis of keyword co-occurrence shows that the presence of the underlying themes (i.e., social media marketing, consumer engagement, etc.) is urged along with the new trends in technologies (i.e., artificial intelligence, machine learning, platform-specific strategies, etc.). The institutional trends also show the concentration in the major research centres and the diversification in the world. The main value of this research is the systematisation of the disjointed information and the sense of the intellectual framework of viral marketing in an age of increased digitalisation. Combining publication trends, collaboration networks, thematic evolution, and institutional productivity, the study provides the organized description of the development field of the study and enumerates the prominent trends in its formation, which defined the direction of its future. As a methodology, it reveals the usefulness of bibliometric methods in reflecting structural and thematic changes in fast-changing fields of research. In spite of the restricted sources of available material, including only the Web of Science database, and the main orientation of the study on the publication output, this study provides a definite basis for future citation-based studies as well as longitudinal ones. Altogether, the findings support the idea that viral marketing has become a full-fledged, interdisciplinary, and technically oriented discipline, which offers a strong basis for further theoretical as well as empirical development.

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