Decoding the Viral Video Phenomenon: A Bibliometric Review of Marketing Strategies (2011-2021)

Mohd Hanif Mohd Omar[1], Azahar Harun[2], Abdul Rauf Hj Ridzuan[3]
{hanifomar@uitm.edu.my, azahar581@uitm.edu.my[2], abdulrauf@uitm.edu.my[3]}

UiTM Cawangan Melaka, UiTM Kampus Alor Gajah, 78000 Alor Gajah

Abstract. This study reports on the bibliometric analysis of scrutinized scholarly works from 2011 to 2021, utilizing data derived from the Web of Science (WoS) and Scopus databases. A total of 2542 pertinent publications have been identified and analyzed to understand their characteristics and citation patterns using recognized bibliometric indicators. The findings from a comprehensive bibliometric analysis on the utilization of video virality as a critical marketing tool, with a focus on advertising and marketing. The findings highlight a noticeable surge in publication trends during the COVID-19 pandemic, underscoring the increasing relevance of viral videos in contemporary marketing strategies. Visualization techniques have been employed to generate a word cloud from author-generated and additional keywords, shedding light on the thematic focus of the existing literature. A Sankey diagram further elucidates less prominent topics, predicting their potential prominence in future research endeavors. Building on these insights, the paper posits recommendations for future research. These include expanding the geographic scope to incorporate underrepresented regions, delving deeper into consumer engagement and interaction with viral video content, and conducting a thorough analysis of the elements that contribute to a video's virality. Additionally, the paper encourages collaborative research efforts across countries, explores the psychological, sociological, and cultural impacts of viral content, examines the influence of global events on viral marketing, and anticipates the implications of technological advancements on viral content

Keywords: Bibliometric; Viral video; Advertising; e-WOM, Content analysis; Marketing.

1 Introduction

Prominent media theorist [1], in Media Virus!: Hidden Agendas in Popular Culture, introduced "media viruses," comparing their spread to biological viruses. These shape public opinion, behaviors, and beliefs, spreading rapidly in the digital era with significant societal effects. He emphasized the hidden agendas—political, economic, or social—behind media and stressed media literacy and critical thinking to mitigate their influence. [2] discussed viral marketing, calling it an efficient tool for spreading messages quickly and affordably. Social networks make viral content more accepted as users voluntarily share it. Successful campaigns rely on user participation, often referred to as Buzzworthy, eWOM, or unconventional marketing [3], [4], [5], [6].

Studies on viral marketing highlight its potential but note challenges for novice researchers in accessing quality references. Aggregating data from WoS and Scopus can enhance insights, yet comparative analyses remain limited. Combining these databases could provide comprehensive data for advancing research. Bibliometric analysis is a suitable method for

summarizing related publications and identifying trends, evaluating collected documents, and pinpointing collaborative opportunities [7], [8], [9], [10]. It efficiently maps research landscapes and uncovers new possibilities.

This study examines viral video trends in advertising and marketing over the last decade (2011–2021) using bibliometric analysis. Data from Scopus and WoS reveals connections and visualizations of viral elements in video content, offering a systematic review of their characteristics.

2   Results and Discussion

2.1   Document analysis

An analysis of documents extracted from the Web of Science and Scopus reveals the distribution of document types. As shown in Figure 1, research articles represent the most frequently published type, followed by conference papers, accounting for 10% and 7%, respectively. Collectively, articles, conference papers, and proceedings papers constitute 94% of the total document types, indicating that original research on viral videos dominates over other formats such as reviews or proceedings. Over the past decade, 45 articles have been published by local researchers.

The publication trend indicates a steady increase over time, with a notable surge in 2020. This year saw 147 more publications than the previous year, marking the most significant rise. The sharp increase during the COVID-19 pandemic suggests that researchers have increasingly focused on the role of viral videos in social media advertising and marketing.

2.2   Keyword analysis

Keywords play a vital role in bibliometric analysis as they help identify research trends within a particular field. Keyword analysis is divided into two categories: Author's Keywords and Keyword Plus. There are 6,130 instances of Author's Keywords recorded, while Keyword Plus accounts for 3,685 entries. The higher number of keywords in Keyword Plus is due to its extraction method, which captures terms from the entire document, including the article's title [16]. Frequently used keywords by leading authors can reveal the primary research interests and priorities within a field [17].

By analyzing keywords, the data can be visualized through a WordCloud, created using both Author's Keywords and Keyword Plus from the collected database. This visualization indicates that prior research has primarily focused on social media development, emphasizing the characteristics of electronic word-of-mouth (e-WOM), its aims, and its role in creating viral video content to support corporate marketing goals [18], [19], [20].

Among the most prominent keywords from the Author's Keywords are "social media," "e-WOM," "online reviews," and "purchase intention," highlighting key areas of interest. Additionally, consumer behavior and attitudes are also included. In contrast, Keyword Plus emphasizes "electronic commerce" and "social networking," reflecting the significance of these platforms for marketers. This suggests that online platforms play a crucial role in enhancing customer engagement and effectively promoting new brands on a global scale. [21], [22]. However, the Internet and social media have significantly changed consumer behavior and business operations [23].

The frequency of occurrence and relevance of Keyword Plus and Author's Keywords are analyzed here. The relevance and frequency of occurrence of Keyword Plus and Author's Keywords have been the subject of several bibliometric analyses across various disciplines. [24]. The frequency of keywords from the Author's Keywords is higher compared to Keyword Plus. This discrepancy is attributed to the method used to generate Keyword Plus. Unlike Author's Keywords, which are directly provided by the authors, Keyword Plus is derived from an automated process that extracts terms from the article's title, abstract, and reference list. This broader extraction method may result in a more extensive yet less specific keyword dataset, leading to differences in keyword frequency between the two categories [25]. As a result, scholars positively discuss the impact of viral videos as a marketing strategy in social media, yet some steps should be considered by scholars regarding the sentiment and impact of viral videos on human behavior.

The Sankey diagram is a popular tool to graphically map energy flows, with various types of energy flows presented in different colors and with the width of each flow indicating energy quantities [26]. A three-field plot based on a Sankey diagram that depicts the connection from countries to references and keyword plus is displayed in Figure 4. The three-field plot is a bibliometric analytic method utilized to visually depict the distribution of publication output, collaboration patterns, and publication impact within a designated field of study or scientific community [27]. The height of the rectangle nodes is proportional to the frequency of occurrence of a certain country, reference, or keyword within the collaboration network. The width of the lines between nodes is proportional to the number of connections. The figure shows that China (frequency = 419) was the country with the most connections, followed by the USA (frequency = 290) and Indonesia (frequency = 133).

The analysis established which keyword-plus of VV literature in advertising and marketing were used most frequently by different countries and references. The study of the top keywords plus (right) focused on "sales", "social media" and "electronic commerce". The lowest keywords are "purchase intention", "consumer behavior" and "consumption behavior". These relationships become an alternative reference for future studies, in which the themes are studied and combined with multiple fields such as psychological, sociological, and cultural. The less prominent topics represent areas with potential for further exploration or research, as they might not be as saturated as the more prevalent themes.

2.3   Active countries

The analyses showed that the article covered 74 different countries (or regions). The dataset shows that article production during the COVID-19 pandemic is increasing in the USA, China, India, Indonesia, and Spain. The publication numbers of the first 5 countries are shown in Figure 5. As for the number of publications, the USA ranked first with 477 (40%) studies. China was in second place with 293 (25%) studies. Spain and Indonesia ranked third and fourth with 152 (13%) and 136 (11.4%) studies. India was ranked fifth with 133 (11.2%).

An empirical analysis of the publication growth trends spanning the decade from 2011 to 2021, focusing on the scholarly output of the ten most frequently cited countries. Foremost among these nations is the United States, which garners preeminence by being the subject of citation in 12,286 scholarly articles. This conspicuous eminence is a compelling validation of the USA's enduring and commanding presence within diverse research domains. Moreover, it substantiates the nation's enduring and substantive contributions to the overarching global repository of knowledge.

Following the USA in this academic hierarchy, China emerges as a noteworthy contender with a commendable 10,626 citations, solidifying its position as a prominent contributor to the global

scholarly discourse. The United Kingdom, Spain, Korea, India, Hong Kong, Australia, France, and Germany follow suit with citation counts ranging from 1,190 to 5,553 articles. These figures underscore the substantive and discernible impact these nations wield within the broader international academic arena.

2.4   Historiography

Figure 1 illustrates the evolution of research themes in online and viral marketing from 2011 to 2021 using network visualization. Each node represents a year, with adjacent labels indicating dominant themes, providing a clearer understanding of this field as supported by [28]. Key recurring themes include viral marketing, eWOM, and social media. Viral marketing appeared in multiple years, evolving from content sharing to specific topics like storytelling and its role in the music industry. eWOM, prominent in 2012 and 2013, connected with online reviews and purchase decisions, while social media linked to user-generated content and brand relationships. In recent years, specific topics gained prominence. In 2018, online reviews, sentiment analysis, and sales trends became focal points, reflecting scholars' deeper interest. By 2020, analytical approaches like sentiment analysis and typology signaled a shift toward structured studies in viral advertising. The historiography reveals interconnected themes over time, such as the progression from "Online Video" in 2012 to "Viral Marketing" in later years.

However, gaps remain, with some years labeled "Not Available," suggesting either limited research or missing data during those periods.
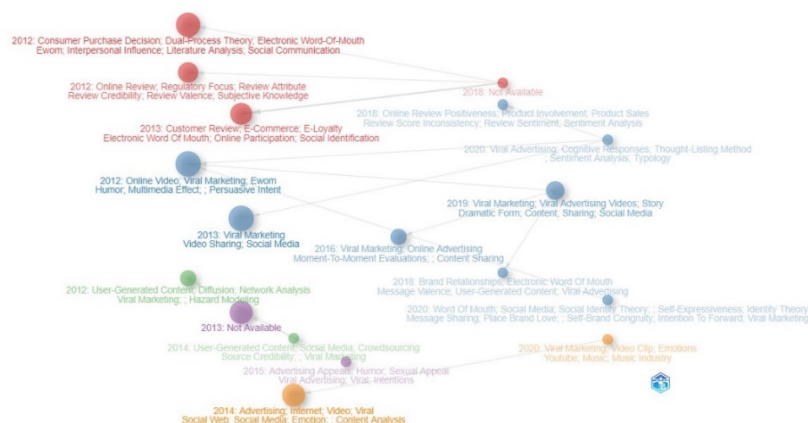

Figure 1. The historiography author's keyword from 2011 to 2021

3   Conclusion

The bibliometric analysis of scholarly articles from Web of Science (WoS) and Scopus provided comprehensive insights into viral videos' attributes in advertising and marketing, particularly on social media platforms. This study analyzed 2542 articles from 2011 to 2021, revealing a significant rise in publications during the COVID-19 pandemic, highlighting the increasing reliance on viral videos as key marketing tools. Keyword analysis pointed to trends like social media, e-WOM, online reviews, and purchase intention, emphasizing consumer interaction's role in viral marketing. The geographical analysis showed the USA, China, India, Indonesia,

and Spain as leading contributors, with the USA and China also dominating citation counts. High-arousal emotions emerged as key drivers of video sharing, while valence had a smaller influence [29]. Sexuality and humor were identified as common appeals in ads, considering their impact on consumer reactions [30]. A Sankey diagram highlighted connections between countries, references, and keywords, revealing collaborative networks and thematic focuses. Less-explored regions and topics, like the sociological and cultural impacts of viral videos, present opportunities for future research. Historiography mapped the evolution of digital marketing research, spotlighting viral marketing and electronic word of mouth as enduring themes. In conclusion, this study mapped the scholarly landscape of viral video marketing, emphasizing consumer engagement's critical role while underscoring the need for deeper exploration of viral content's cultural and psychological effects, particularly for Malaysian SMEs. The pandemic-driven surge in focus reinforced the relevance of viral videos as essential tools in modern digital marketing.

References

[1] D. Rushkoff, "Media Virus!: Hidden Agendas in Popular Culture," Michigan, USA: Ballantine Books, 1994.

[2] J. Rayport, "The virus of marketing," Fast Company, vol. 6, p. 68, 1996.

[3] R. Dye, "The buzz on buzz," Harvard Business Review, vol. 78, no. 6, pp. 139-146, Nov-Dec 2000.

[4] E. Rosen, "The anatomy of buzz: How to create word of mouth marketing," Currency, 2002.

[5] M. Petrescu and P. Korgaonkar, "Viral advertising: Definitional review and synthesis," Journal of Internet Commerce, vol. 10, no. 3, pp. 208-226, 2011.

[6] M. T. Ewing, D. B. Stewart, D. R. Mather, and J. D. Newton, "How Contagious Is Your Viral Marketing Campaign?: A Mathematical Model for Assessing Campaign Performance," Journal of Advertising Research, vol. 54, no. 2, pp. 205-216, 2014.

[7] W. Chen, M. M. Ahmed, W. I. Sofiah, N. A. M. Isa, N. A. Ebrahim, and T. Hai, "A bibliometric statistical analysis of the fuzzy inference system-based classifiers," IEEE Access, vol. 9, pp. 77811-77829, 2021.

[8] M. Farrukh, F. Meng, A. Raza, and M. Tahir, "Twenty-seven years of Sustainable Development Journal: A bibliometric analysis," Sustainable Development, vol. 28, 2020.

[9] N. Donthu, S. Kumar, D. Mukherjee, N. Pandey, and W. M. Lim, "How to conduct a bibliometric analysis: An overview and guidelines," Journal of Business Research, vol. 133, pp. 285-296, 2021.

[10] D. M. Lewis and K. M. Alpi, "Bibliometric Network Analysis and Visualization for Serials Librarians: An Introduction to Sci2," Serials Review, vol. 43, pp. 239-245, 2017.

[11] H. Hasin, A. Jamil, Y. C. Johari, and E. S. Kasim, "COVID-19 and its Impact on Small and Medium Enterprises: Evidence from Malaysia," International Journal of Academic Research in Accounting Finance and Management Sciences, vol. 11, no. 11, pp. 719-739, 2021.

[12] M. O. Mohd Hanif, "Pengiklanan video tular berkesan promosi produk," Berita Harian, 22 December 2020.

[13] K. Wallsten, ""Yes We Can": How Online Viewership, Blog Discussion, Campaign Statements and Mainstream Media Coverage Produced a Viral Video Phenomenon," Journal of Information Technology and Politics, vol. 7, pp. 163-181, 2010.

[14] R. Dianthe and B. P. Iskandar, "The Effect of Content Viral Video to Engagement," pp. 289–298, 2016.

[15] M. Aria and C. Cuccurullo, "Bibliometrix: An R-tool for comprehensive science mapping analysis," Journal of Informetrics, vol. 11, no. 4, pp. 959–975, 2017.

[16] M. Tripathi, S. Kumar, S. K. Sonker, and P. Babbar, "Occurrence of author keywords and keywords plus in social sciences and humanities research: A preliminary study," COLLNET Journal of Scientometrics and Information Management, vol. 12, no. 2, pp. 215-232, 2018.

[17] X. Zhang, R. C. Estoque, H. Xie, Y. Murayama, and M. Ranagalage, "Bibliometric analysis of highly cited articles on ecosystem services," PloS one, vol. 14, no. 2, p. e0210707, 2019.

[18] S. Shome, "Intentions to use travel eWOM: mediating role of Indian urban millennials' attitude," International Journal of Tourism Cities, vol. 7, no. 3, pp. 640-661, 2021.

[19] D. Štreimikienė, A. Mikalauskienė, U. Sturienė, and G. L. Kyriakopoulos, "The impact of social media on sales promotion in entertainment companies," E&M economics and management, vol. 24, no. 2, pp. 189-206, 2021.

[20] D. Barbe and L. Neuburger, "Generation Z and digital influencers in the tourism industry," in Generation Z Marketing and Management in Tourism and Hospitality: The Future of the Industry, Cham: Springer International Publishing, 2021, pp. 167-192.

[21] T. Y. Huang, "Cross-Border E-commerce Brand Promotion Research–using AIDA Model," in 2021 3rd International Conference on E-Business and E-commerce Engineering, December 2021, pp. 19-23.

[22] B. L. Song, C. Y. Liew, J. Y. Sia, and K. Gopal, "Electronic word-of-mouth in travel social networking sites and young consumers' purchase intentions: an extended information adoption model," Young Consumers, vol. 22, no. 4, pp. 521-538, 2021.

[23] Y. K. Dwivedi, E. Ismagilova, D. L. Hughes, J. Carlson, R. Filieri, J. Jacobson, et al., "Setting the future of digital and social media marketing research: Perspectives and research propositions," International Journal of Information Management, vol. 59, p. 102168, 2021.

[24] Y. Zhang, P. Thenkabail, and P. Wang, "A bibliometric profile of the remote sensing open access journal published by mdpi between 2009 and 2018," Remote Sensing, vol. 11, no. 1, p. 91, 2019.

[25] M. Aria and C. Cuccurullo, "Bibliometrix: An R-tool for comprehensive science mapping analysis," Journal of Informetrics, vol. 11, no. 4, pp. 959–975, 2017.

[26] H. Min, P. Liu, L. Ma, C. Chong, X. Li, S. Song, et al., "A systems analysis of the development status and trends of rural household energy in china," Energies, vol. 11, no. 7, p. 1741, 2018.

[27] M. Koo, "Systemic Lupus Erythematosus Research: A Bibliometric Analysis over a 50-Year Period," Int J Environ Res Public Health, vol. 18, no. 13, p. 7095, 2021.

[28] C. Rundle, "Introduction: The historiography of translation and interpreting," in The Routledge Handbook of Translation History, Routledge, 2021, pp. xviii-xxvi.

[29] K. Nelson-Field, E. Riebe, and K. Newstead, "The Emotions that Drive Viral Video," Australasian Marketing Journal, vol. 21, no. 4, pp. 205–211, 2013.

[30] M. Petrescu, "Viral Advertising and the Implications of Social Media," 2014, 10.4018/978-1-4666-7357-1.ch061.