Application of social media marketing in entrepreneurship: a bibliometric analysis

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Abstract: In recent years, the application and research of social media marketing (SMM) in entrepreneurship have increased faster. This research aims to provide a bibliometric overview of the main trends in applying SMM in entrepreneurship from 1996 to 2022. The data for the study was gathered using the Scopus database. This study aims to look at the application of SMM in entrepreneurship and evaluate its significance based on current research, countries, authors, and publications in the field. The study is based on the frequently used authors' keywords, citations, essential authors, countries, and publishers in the research domain. This study examines 578 research papers and presents the findings in a graphical and visual format. The present study assists scholars and academicians working in entrepreneurship in pondering the most important subjects and identifying gaps in the literature.

Keywords: social media marketing; SMM; entrepreneurs; SMEs; social networks; innovation.

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1 Introduction

Today, entrepreneurs have started utilising information and communications technology (ICT) in the form of numerous SMM aspects in their businesses (Sharples, 2020). Entrepreneurs have gained digital skills and knowledge as SMM helps them perform many business facets at their convenience anywhere and anytime. Entrepreneurs have shifted from traditional to digital marketing tools (Saari, 2020). For example, entrepreneurs can apply SMM in aspects like direct communication with customers, informing them about the products and services, placing orders, filing complaints, etc. In addition, entrepreneurs involved in different businesses, such as food-based ventures, clothing businesses, and beauty and health product businesses, carry out their business activities via social media applications (Rashid et al., 2021).

During the COVID-19 pandemic, commercial marketing via social media applications has been the favoured medium for entrepreneurs for online businesses. Entrepreneurs utilise social media platforms like Facebook, Instagram and YouTube to advertise and deliver information about their products, services, or brands to consumers. This method can increase brand awareness and engagement and stimulate buyers' interest in trying the promoted products. In addition, a relevant and consistent advertising strategy allows entrepreneurs to attract new customers.

Entrepreneurs have lately been using a variety of digital tactics to improve their business operations. They understand that digital business is the reality of a new future business-standard. The study by Rashid et al. (2021) highlights that entrepreneurs are beginning to recognise the need to use a digital platform to conduct their business operations.

Entrepreneurs should maximise the use of digital platforms for different business activities such as finding dealers, procuring raw materials, tying up with suppliers, understanding the needs and preferences of customers, etc. It is high time that entrepreneurs understand the importance of SMM for the long-term survival of their businesses.

Social media is widely used in micro, small, medium, and large institutions to introduce the business, regularly update stakeholders, maintain customer relationships, and for advertisement, sales promotion, and personal selling. All these activities are done through platforms like Facebook, Instagram, YouTube, Twitter, and Snap-Chat. Entrepreneurs and businessmen can observe from their surroundings that social media is used by every business these days, and starting a new venture or managing an old one without social media nowadays is nearly impossible.

Now, after realising the importance and increasing use of social media, business people and entrepreneurs should know the exact trend of social media use in entrepreneurship, as most of them do not know about the techniques of using social media to engage viewers, how to create quality content, how to get more engagement, what is the rate of growth, how to advertise through social media, what is the click-through rate, and the importance of keywords and search results.

This paper gives insights into the social media trend in entrepreneurship through systematically studying related literature. Furthermore, it will give details about the research in this field and help entrepreneurs find relevant literature of high quality and importance that could answer the above questions.

Specifically, this research uses bibliometric analysis to offer light on the performance analysis and scientific mapping of the complete corpus of application of SMM research in entrepreneurship. The performance analysis technique helps to identify leading journals, authors, affiliations, country-wise publications, citation score, h-index, etc. (Donthu et al., 2021). At the same time, science mapping presents a graphical representation of the existing knowledge and its interrelationships in a field (Donthu et al., 2021).

There needs to be more knowledge on how scholarly works on applying SMM in entrepreneurship have evolved. Therefore, analysing which journals, countries, or authors contribute most to this subject is still being determined. The present study aims to find the major themes and topics, publication trends, and top contributing journals, authors, and countries for applying SMM in entrepreneurship. This study examines the literature and determines the critical themes related to the field using an objective method, i.e., bibliometric analysis. This study will guide future academicians who wish to research in this area.

The present paper is structured in the following manner. The bibliometric approach and its methodology are described in Section 2. The results are then examined in Section 3, briefly discussing the essential findings. Section 4 concludes the paper, while Section 5 discusses the limitations and scope of future research in the field.

2   Literature review

In the rapidly evolving landscape of social media marketing in entrepreneurship, researchers are challenging traditional metrics used to measure the impact of authors. Yadav et al. (2022) propose the 'f index' as an alternative, reflecting a more nuanced approach to assessing author influence within social media marketing research. This shift suggests an increasing sophistication in the evaluation of scholarly contributions. Concurrently, Hsu and Hung (2022) highlight the reciprocal relationship between digital marketing journals and the advertising industry. Their work underscores the practical value of academic insights for industry applications and outlines essential elements of

digital marketing-related research. This contribution aids in developing a digital marketing capability framework, suggesting new avenues for research in the marketing and advertising chain. Addressing the challenges posed by the COVID-19 pandemic, Dubbelink et al. (2021) provide insights into creating brand equity through social media marketing. They identify four crucial components for sustaining brand equity during crises, emphasising the adaptability required in the ever-changing social media marketing landscape. Examining the specific challenges and opportunities in rural India, Kumar et al. (2022) stress the importance of addressing internet connectivity issues and eliminating obstacles like online fraud. This research underscores the need for tailored strategies to tap into emerging markets effectively. Casas-Valadez et al. (2020) pivot to sentiment analysis, demonstrating how businesses can make informed decisions by assessing consumer opinions and sentiments. Their bibliometric analysis sheds light on the development, trends, and standout publications in sentiment analysis. Zhao et al. (2020) delve into the evolving research hotspots in social media and social network marketing, providing actionable recommendations for businesses to enhance their marketing effectiveness. The study identifies trends and similarities between social networks and social media in marketing research using keyword co-occurrence and cluster analysis. This exploration offers practical insights for companies seeking to align their strategies with emerging trends and harness the potential of social platforms. In a comparative study, Poddar and Agarwal (2019) shed light on the sustainability and effectiveness of start-ups through social media and digital marketing. Based on a sample size of 100, the research concludes that leveraging social media and digital media for promotion proves adequate and is also a cost-effective approach for emerging businesses. This finding emphasises the pivotal role of integrated marketing strategies in supporting the growth and longevity of start-ups in the digital age. Roetzel (2019) contribute through a comprehensive review of information overload, proposing future research questions and suggesting a novel paradigm for understanding decision-maker challenges in information abundance. This review provides a holistic perspective on information processing challenges and opens avenues for further exploration in understanding the dynamics of decision-making under information overload. Ezzouine et al. (2018) offered a global perspective on social media use in organisational literature, emphasising the need for a more cohesive approach to studying social media use. Their findings reveal the USA dominance in communication, emergency management, and marketing research. This global overview underscores the significance of unified research efforts to comprehensively understand the impact and implications of social media in diverse organisational contexts. Verma et al. (2017) contribute by discussing the impact of digital marketing and social media strategy on SMEs, outlining tangible benefits and practical advantages for small and medium-sized enterprises. Exploring benefits such as increased sales, leads, improved search rankings, and enhanced publicity provides valuable insights for SMEs navigating the digital landscape. Consumer ethnocentrism and attention to social comparison information as drivers of a rural-specific marketing strategy in India was evaluated by Das and Saha (2017). This research recognises the importance of culturally tailored approaches in understanding consumer behaviour in diverse contexts, guiding businesses operating in culturally heterogeneous markets. Atwong (2015) focused on preparing students for digital marketing, emphasising the alignment of academic curricula with industry needs to equip students with relevant skills. This educational perspective highlights the crucial role of academia in shaping the future

workforce to meet the demands of the ever-evolving digital marketing landscape. Internet users' preference for social media identifies practical tools to attract customers, offering actionable insights for businesses seeking to engage online audiences. Identifying mnemonic branding, promotions, piggybacking advertising, and adequate bandwidth as practical tools underscores the importance of strategic marketing in the digital realm (Jain, 2015). Bala (2014) delves into how new media redefines social roles, emphasising the potential societal implications of evolving communication channels. In the age of communication, a new social order is being developed, strengthening public and mass communication but potentially weakening interpersonal communication. This exploration highlights the transformative impact of new media on societal dynamics and communication patterns. Collectively, these studies contribute to a nuanced understanding of the multifaceted landscape of social media marketing and its implications for businesses, researchers, and educators. From identifying emerging research hotspots to exploring the dynamics of information processing and understanding consumer behaviour in diverse contexts, these investigations offer valuable insights for navigating the complexities of the digital era.

3   Research methodology

The current study used a three-stage review procedure suggested by Paul et al. (2021), i.e., 'assembling, arranging, and assessing of articles'. The first stage was assembling, where articles on the topic were collected. This study used the most straightforward and most widely used keyword in the literature to identify the relevant articles. A combination of two keywords, i.e., 'social media marketing' AND 'entrepreneurship', was used for assembling articles. In order to finalise the keyword, an initial keyword listing was developed and discussed with two academicians working in the domain to finalise search terms (Ferasso and Cherobim, 2017). The keywords were searched in the 'article title, abstract, and keywords' string. Due to its size and authenticity, the Scopus database has been utilised to collect research papers in the SMM domain in entrepreneurship. In the assembly stage, 1,657 results were obtained, ranging from 1996 to 2022.

The second stage was arranging, where articles were organised on some specific criterion. This study used Scopus' category (code) function to review the search results (Kumar et al., 2022). The results were filtered into these categories with the following inclusion criterion: Year was selected till '2022'; the subject area was set as 'business, management, and accounting'; document type was restricted only to 'article'; publication stage was 'final', source type was selected as 'journal', and language as 'English'. A corpus of 578 articles was retrieved from the results.

The third stage was assessing. So, to review the final corpus of 578 papers, the bibliometric analysis technique was used as it is a crucial tool for analysing the literature systematically (Vogel and Güttel, 2013). It employs a variety of methodologies to gather and analyse data on citations, co-citations, fields, and nations, among other aspects (Koehler, 2001). According to Martínez-López et al. (2018), bibliometric analysis is widely used in marketing. Figure 1 depicts the framework adopted in this study for data extraction.

This study aims to provide a comprehensive review of the literature relevant to SMM in entrepreneurship and investigate the principal themes in the domain. Hence, the two

most popular bibliometric analysis techniques, i.e., performance analysis and science mapping, have been used in the present study. The biblioshiny package of R software has been utilised to conduct performance analysis. VOSviewer software version 1.6.18 has been used for science mapping since it allows for an attractive and effective presentation of bibliometric data.

Figure 1 Three-stage review procedure for bibliometric analysis (see online version for colours)
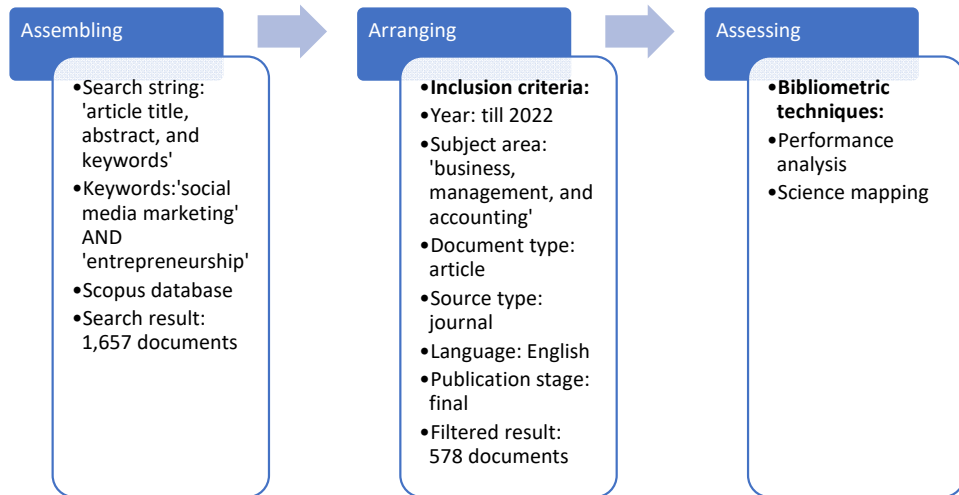
In the present study, three significant metrics have been examined via the Performance analysis technique. First is publication-related metrics, which include the publication trend, i.e., year-wise publication graph, leading journals, most prominent authors, and country-wise publication. Second is citation-related metrics, i.e., total citations (TC) and average citations (AC). Finally, the third is the combination of citation and publication-related related metrics, such as h-index, etc. (Donthu et al., 2021).

On the other hand, the science mapping technique examines the relationship between research elements. This study incorporated techniques like co-citation analysis, bibliographic coupling, and co-word analysis to understand the knowledge structure in the domain (Donthu et al., 2021).

## 4   Findings and discussion

4.1   Performance analysis

Performance analysis of five research elements has been discussed in this section, i.e., documents, sources (journals), authors, countries, and keywords.

4.1.1   Publication trend for application of SMM in the entrepreneurship domain

The publication trend shows the direction of publication from 1996 till 2022. Social media marketing in entrepreneurship research is growing at what rate and from which year it started accelerating.

Figure 2   Annual scientific production map showing year-wise publication in the application of
SMM in entrepreneurship (see online version for colours)
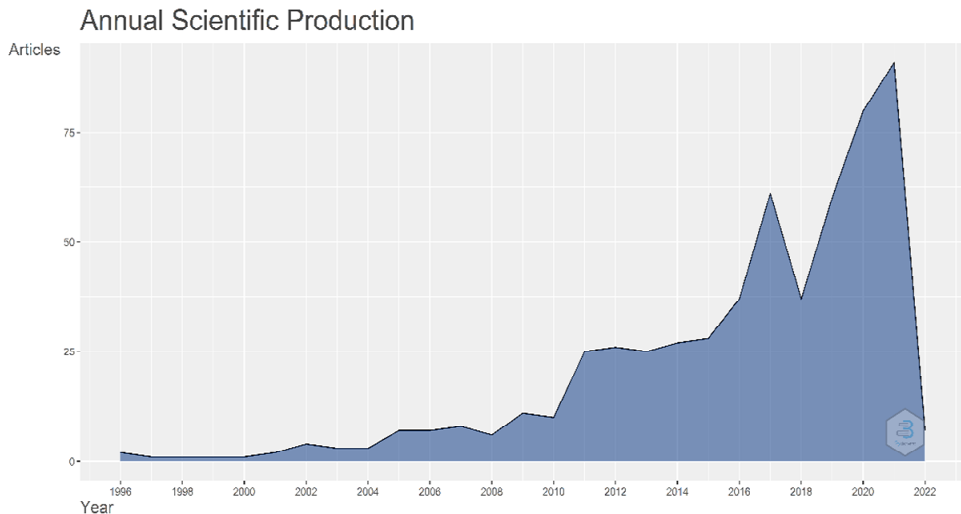
The pace of research in this field began after the year 2010. This shows that researchers'
interest in this domain grew after 2010 and gained momentum after 2018. Figure 2 shows
the timeline of publications on applying SMM in entrepreneurship. Overall, the figure
below depicts that the research on this subject has risen significantly over time. Research
in this area has a great scope, and researchers should try to explore more as there is
enormous potential in this research domain. However, the pattern also indicates that this
area is growing exponentially quickly.

4.1.2   Top contributing journals for the application of SMM in the entrepreneurship domain

Researchers need to publish their work at an appropriate place to get value for the
research done. This section highlights the most contributing journals in social media
marketing.

The information on top contributing journals will help future researchers target the
relevant journals for publication. Figure 3 shows the top 20 journals publishing research
articles on applying SMM in entrepreneurship.

The most prominent journal in this field is *Emerald Emerging Markets Case Studies*,
which has 16 publications. The second most contributing journal is *Sustainability*
(Switzerland), with 14 research publications. At the same time, three journals stand in the
third position: *Journal of Business and Industrial Marketing*, *Journal of Research in
Marketing and Entrepreneurs*, and *Proceedings of the European Conference on
Innovation*. These journals have published most articles, and it is a popular preference of
researchers in this field. Therefore, future researchers should aim to publish their work in
these journals and get a full appraisal of it.

Figure 3 Top 20 contributing journals for the application of SMM in the entrepreneurship domain (see online version for colours)

Most Relevant Sources
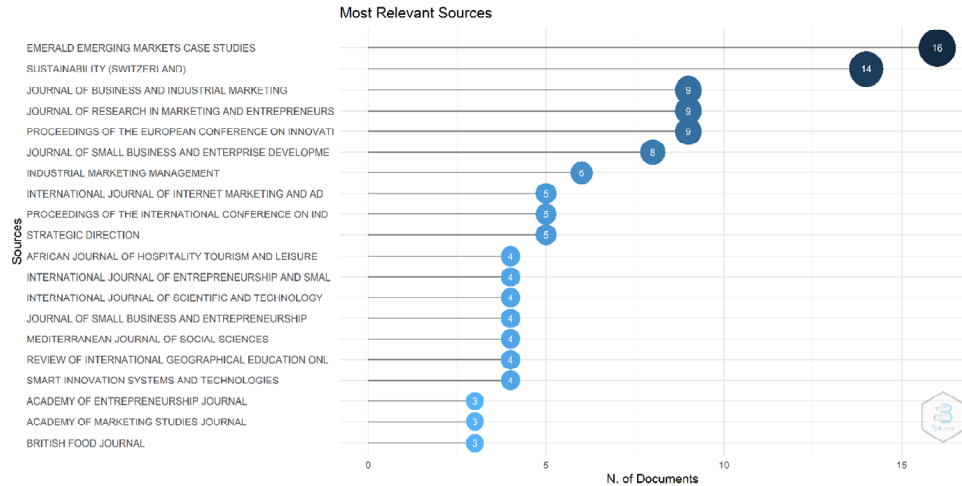
4.1.3 Top contributing authors in the research of the application of SMM in the entrepreneurship domain

It is vital for business people and researchers to know the authors doing research in this area. Therefore, the top contributing authors gave most publications to find articles for valid purposes and study literature.

Figure 4 Top 20 most contributing authors for application of SMM in entrepreneurship domain (see online version for colours)
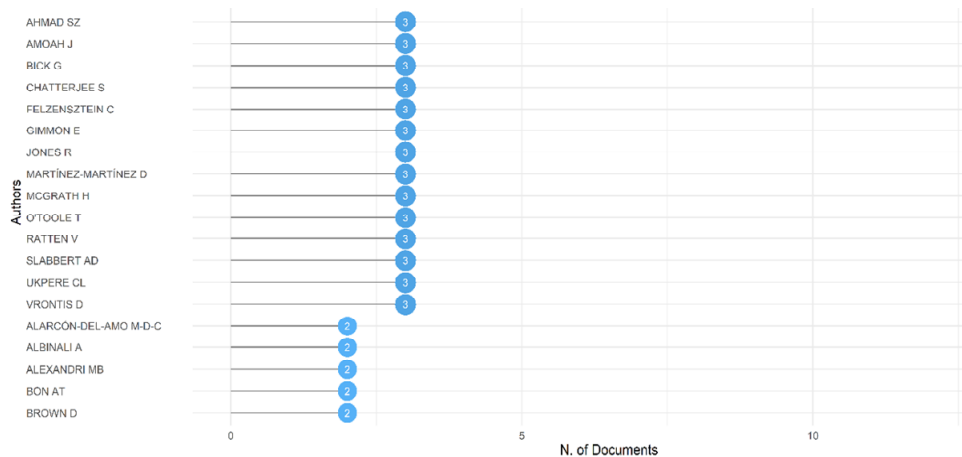

Figure 4 shows that 15 authors have three research publications each in the field, while five authors have two publications each. This metric shows the popularity of the authors in terms of contribution to the field, and it might be helpful for scholars as a guide for future collaborations. For literature study in this field, future researchers can follow these authors to get an idea of the recent works of famous authors. Further, only some authors

have a dominant presence, and some researchers can concentrate their efforts on this domain.

4.1.4 Top contributing countries for application of SMM in the entrepreneurship domain

The place/location of researchers is very vital as only some research will suit some countries. Here, we identified the top 10 countries in terms of publication.

Table 1   Top 10 most influential countries in terms of TCs and ACs

S. no.	Country	Total citations	Average citations per article
1	UK	1,238	41.27
2	USA	453	11.32
3	Australia	424	23.56
4	Spain	415	19.76
5	New Zealand	294	73.5
6	Malaysia	274	21.08
7	Netherlands	211	42.2
8	Italy	206	15.85
9	Sweden	194	19.4
10	India	173	8.24

Figure 5   Top 10 countries in terms of publication (see online version for colours)
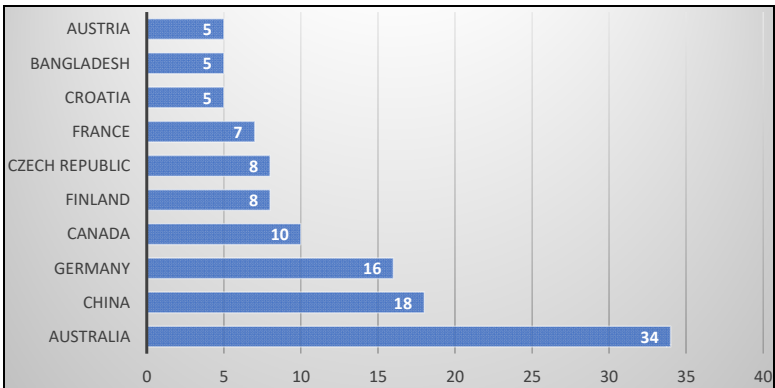
In terms of contribution, a simple metric, i.e., the number of publications, is analysed and depicted in Figure 5. The highest contributor in the field is Australia, with 34 publications. China, with 18 publications, and Germany, with 16 publications, stand in second and third positions, respectively.

Regarding influence, two metrics, citation-related metrics, TC and AC, have been analysed and reported in Table 1. The TC score is highest for the UK, i.e., 1,238 citations, followed by the USA, which has 453 citations. At the same time, Australia is in third place (TC = 424).

On the other hand, ACs score is highest for New Zealand (AC = 73.50), followed by the Netherlands (AC = 42.20). Though the UK is at the top in terms of TC, it is in the third position (AC = 41.27) in terms of AC per article.

These results show that future research can be done in Australia, China, and Germany. Other countries also have an increasing publication trend, which is expected to increase more in the upcoming years.

4.1.5 H-index of journals for application of SMM in entrepreneurship domain

The h-index measures a research element's citation and productivity, such as an author or journal. For the present research, we identified the top 10 journals in the subject according to their h-index metrics. When looking for the ideal publication platform to publish a research paper, knowing the H-index score of the target journals can be helpful as it increases the authors' chances of being referenced by other writers, enhancing their own H-index score. Figure 6 shows the H-index of the top 10 journals on the subject.

Figure 6 H-index of top 20 journals for application of SMM in entrepreneurship domain (see online version for colours)
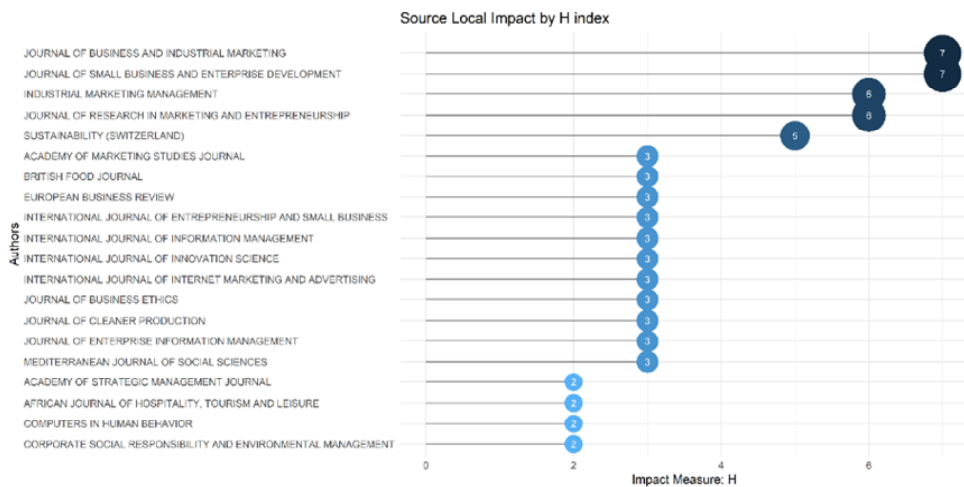
The results show that *The Journal of Business and Industrial Marketing* and *The Journal of Small Business and Enterprise Development* are the most influential journals in the field, with an h-index of seven each. The trend is moving forward, and future researchers should aim to publish their work in *The Journal of Business and Industrial Marketing* and *The Journal of Small Business and Enterprise Development*.

4.1.6 Most frequent authors' keywords

A word cloud map was generated using bibliophily to find the most frequently used keywords by authors. The unit of analysis was 'authors' keywords', meaning the keywords that the authors selected that best explain their research work. Figure 7 is the word cloud map of the database's top 50 most frequently used authors' keywords. It is evident that the words 'marketing', 'social media marketing', 'SMEs', and 'entrepreneurship' are used most frequently in the selected Scopus database for this

study. This information can be helpful for scholars to find articles using relevant keywords and understand the most widely studied aspects of the field. Keywords are essential for search engine optimisation, better results on social media, and better search on search engines. Combinations of keywords used, like social media in retail, social media in FMCG, and social media in education, can be used by future researchers to get precisely the same literature to study the trend in more detail and help to get better search results.

Figure 7   Word-cloud map of the top 50 authors' keywords in applying SMM in entrepreneurship (see online version for colours)


4.2   Science mapping

Science mapping depicts the relationships between research elements. This section highlights the co-occurrence network diagram of author keywords, bibliographic coupling of countries, organisations, and sources, and co-citation analysis of authors and sources.

4.2.1   Co-occurrence of authors' keywords

A co-word network map has been created using VOS viewer to determine the co-occurrence of different keywords, i.e., which are frequently cited. The type of analysis was 'co-occurrence', and the unit of analysis was 'author keywords'. There were 1,678 keywords, and all in a single netwosomemap were not considered viable. Hence, a threshold of five occurrences was set, and 58 keywords met this criterion. Figure 8 depicts the most prominent keywords and their occurrence in research papers.

The node's size determines the frequency of occurrence, while connected lines show their co-occurrence. The network diagram is divided into seven clusters represented by different colours. It depicts that keywords in a single cluster are closely related and co-occur more often than others. For example, the keywords 'social media', 'SMEs', and 'social media marketing' have the most significant size, indicating their popularity in terms of occurrences. Table 2 shows the top 10 keywords with the frequency (occurrences) and total link strength of one keyword to another.

Figure 8 Co-occurrence of authors' keywords (see online version for colours)
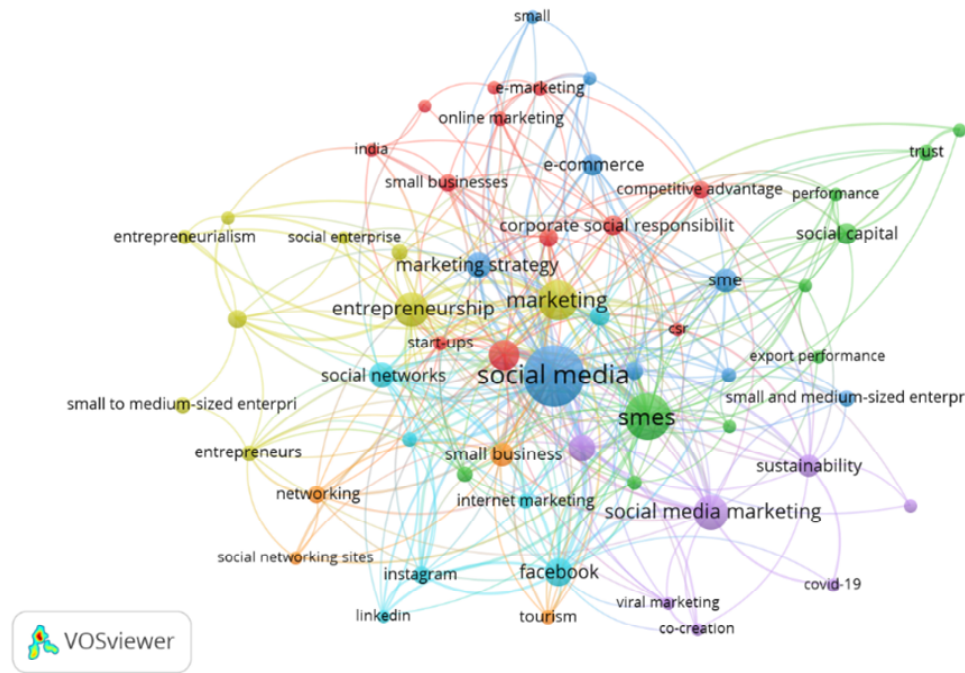
Table 2 Top 10 authors' keywords, frequency, and total link strength

Authors' keyword	Occurrences	Total link strength
Social media	106	157
SMEs	63	82
Marketing	47	85
Entrepreneurship	36	55
Social media marketing	34	40
Digital marketing	28	41
Facebook	24	51
Innovation	20	37
Marketing strategy	19	24
Social networks	18	34

4.2.2 Bibliographic coupling

When two publications' bibliographies refer to the same third source, this is known as bibliographic coupling. Two papers are considered bibliographically related when mutually referencing one or more publications. The two works may be based on the same source material and thus may have similarities in theory or topic. For the current study, bibliographic coupling network maps were created in VOS viewer for three research elements, i.e., countries, organisations, and sources.

4.2.2.1   Bibliographic coupling of countries

To create a bibliographic coupling map of countries in VOS viewer, the unit of analysis was countries. The Scopus database in this study had a total of 94 countries. However, a threshold limit of five documents per country was set to reduce the number of countries. As a result, 35 countries met this threshold, depicted in Figure 9.

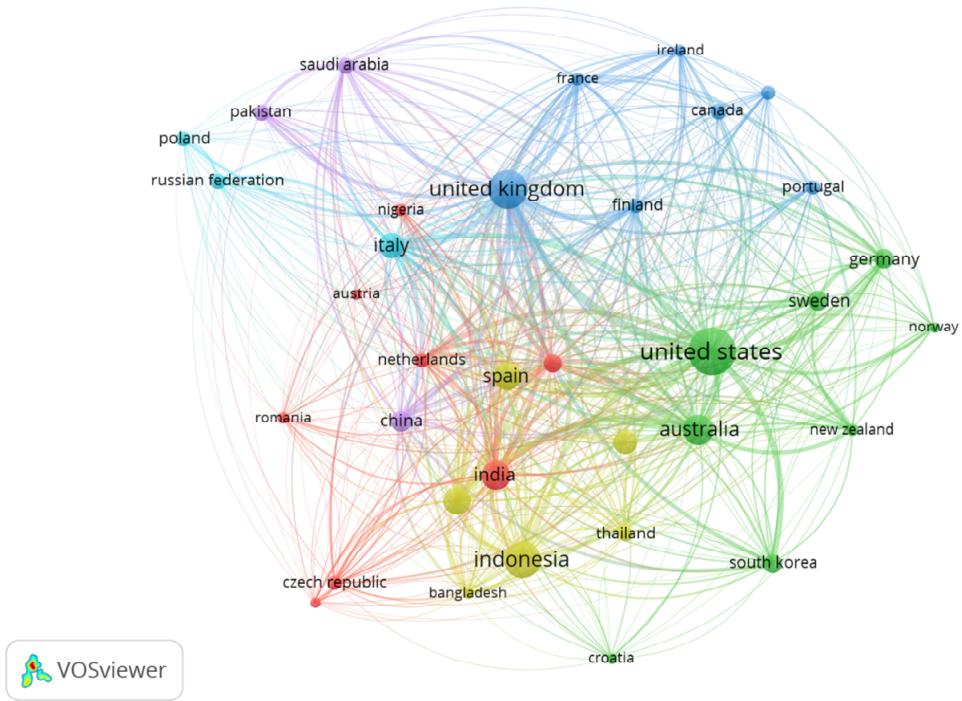**Figure 9**   Bibliographic coupling of countries (see online version for colours)

Table 3   Top 10 countries, number of documents, citations, and total link strength in terms of bibliographic coupling

Country	Documents	Citations	Total link strength
USA	83	1,221	5,292
UK	57	2,190	5,871
Indonesia	51	116	2,376
Australia	34	979	2,815
India	32	190	2,358
Malaysia	28	297	2,694
Spain	28	456	2,039
Italy	25	390	2,969
South Africa	22	101	520
China	18	67	1,577

The thickness of the lines displays the frequency with which two counties cite the paper together, whereas the frequency of papers determines the node's size. The proximity of the countries shows that countries in the same cluster have high TLS, which means they are more bibliographically coupled than others.

Seven clusters are emerging in the network map. For instance, cluster green includes the USA, Australia, Sweden, etc. which depicts these countries' standard bibliographies. Meanwhile, 'the USA', 'the UK', and 'Indonesia' have high research paper publications in this field, as depicted by node size.

Table 3 shows the ten most bibliographically coupled countries, their number of documents and citations per country, and the total strength of each country's relationship with other countries.

4.2.2.2 *Bibliographic coupling of organisations*

To create a bibliographic coupling map of organisations, the unit of analysis was organisations. There were 986 organisations in the database, but a threshold limit of a minimum of two documents for an organisation was set to draw meaningful conclusions. So, 22 organisations met this criterion. Figure 10 shows the bibliographic coupling of organisations that publish in applying SMM in entrepreneurship.

Table 4 Top 10 organisations, number of documents, citations, and total link strength in terms of bibliographic coupling

Organisation	Documents	Citations	Total link strength
Auburn University, USA	2	14	7
Barry University, USA	2	30	0
Birla Institute of Management Technology, Greater Noida, India	2	1	0
Cape Peninsula University of Technology, Cape Town, South Africa	2	32	55
Department of Business Administration, Politeknik Negeri Malang, Indonesia	2	9	10
Department of Industrial Psychology and People Management, University of Johannesburg, Johannesburg, Gauteng, South Africa	2	32	55
Department of Marketing and Entrepreneurship, University of Ghana Business School, Accra, Ghana	2	45	13
Department of Marketing and International Business, University of Toledo, 2801 W. Bancroft St., Toledo, Oh 43606-3390, USA	2	60	6
Department of Production and Operations, University Tun Hussein Onn Malaysia, Malaysia	2	0	0
Faculty of Business and Management Sciences, Cape Peninsula University of Technology, South Africa	2	14	7

Figure 10   Bibliographic coupling of organisations (see online version for colours)

Table 4 shows the ten most bibliographically coupled organisations, the number of papers and citations per organisation, and the total strength of each organisation's relationship to other organisations.

4.2.2.3   *Bibliographic coupling of sources (journals)*

To create a bibliographic coupling map of sources, the unit of analysis was sourced (journals). There was a total of 379 sources in the database, but to draw meaningful conclusions, a threshold limit of a minimum of four documents for a source was set. So, 17 sources met this criterion. Figure 11 shows the bibliographic coupling of journals that publish in SMM in entrepreneurship.

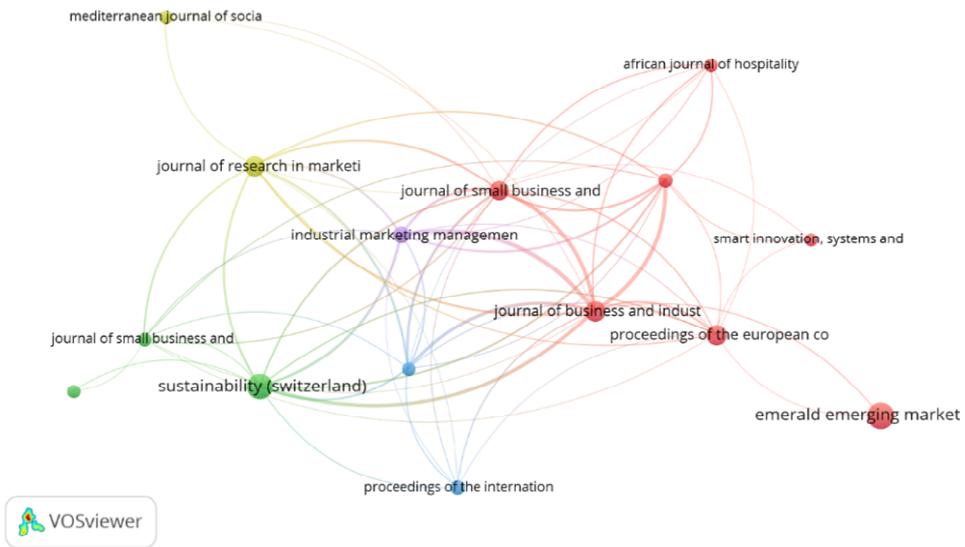**Figure 11**   Bibliographic coupling of sources (journals)

Table 5 shows the top 10 bibliographically coupled sources, the number of papers and citations per source, and the total strength of each source's relationship to other sources.
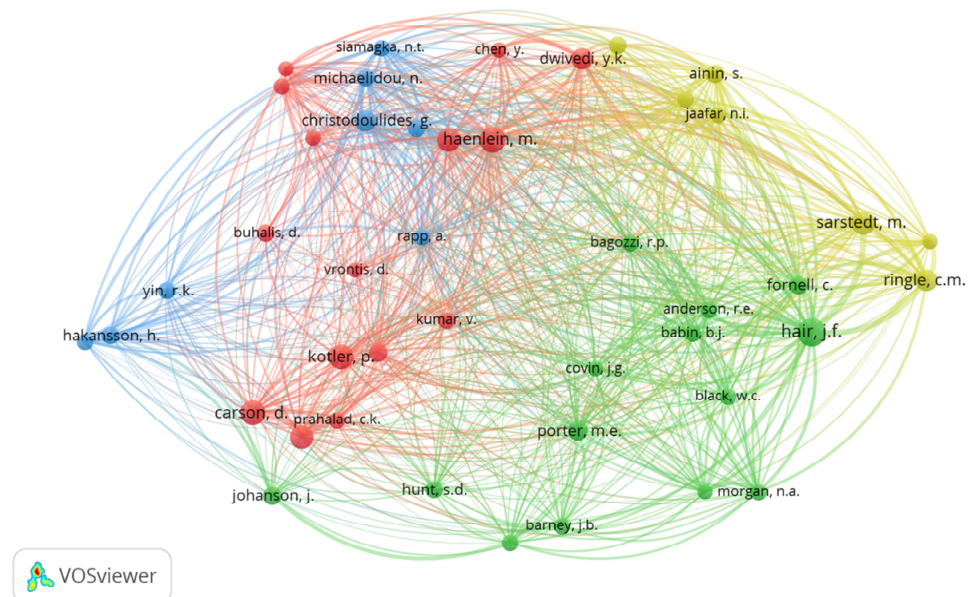
4.2.3   *Co-citation*

A co-citation network map has been constructed to visualise academic knowledge in applying SMM in entrepreneurship. For the present study, co-citation network maps for

authors and sources have been conducted. It means how often the authors or sources have been cited in a third document.

Table 5 Top 10 sources, number of documents, citations, and total link strength in terms of bibliographic coupling

Source	Documents	Citations	Total link strength
African Journal of Hospitality, Tourism and Leisure	4	15	21
Emerald Emerging Markets Case Studies	16	4	4
Industrial Marketing Management	6	621	128
International Journal of Entrepreneurship and Small Business	4	86	87
International Journal of Internet Marketing and Advertising	5	70	103
International Journal of Scientific and Technology Research	4	7	3
Journal of Business and Industrial Marketing	9	272	236
Journal of Research In Marketing and Entrepreneurship	9	109	90
Journal of Small Business and Enterprise Development	8	359	132
Journal of Small Business and Entrepreneurship	4	15	25

Figure 12 Co-citations of authors (see online version for colours)

4.2.3.1   *Co-citation of authors*

The co-citation analysis map depicts the authors referenced in an article. A research cluster emerges when many authors discuss the same pair of papers two authors wrote.

There were an enormous number of co-referenced authors in the database (around 30,800), so a threshold limit was required to be set to ensure clarity and readability. The minimum number of citations was set as 30 citations. The final network map included the top 44 co-cited authors.

Figure 12 depicts the co-citation network diagram of the authors. The thickness of the lines connecting the two authors reflects the degree of their co-citation relationship when they are close.

Table 6   Top 10 authors, number of documents, citations, and total link strength in terms of co-citations

Author	Citations	Total link strength
Hair, J.F.	97	1,132
Haenlein, M.	81	813
Carson, D.	76	541
Kotler, P.	73	248
Kaplan, A.M.	70	699
Gilmore, A.	67	520
Sarstedt, M.	66	918
Ringle, C.M.	63	864
Dwivedi, Y.K.	57	509
Christodoulides, G.	53	623

Figure 13   Co-citation network map of sources (see online version for colours)
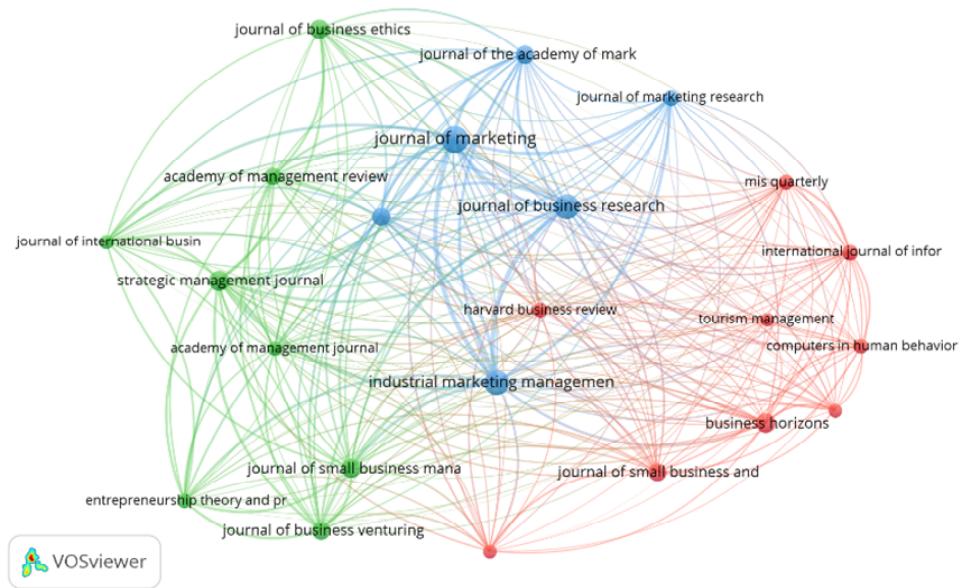
The number of citations and the degree of relationship between them (TLS) for the top 10 authors based on citations are shown in Table 6.

4.2.3.2 Co-citation of sources

There were around 11,800 sources in the selected database, but the minimum number of citations for a source was set as 100 for interpretation purposes. Hence, the map shows only the top 23 co-cited sources. Figure 13 shows the network diagram of the co-citation of sources.

Table 7 shows the number of citations and the degree of co-cited relationship between them (TLS) for the top 10 journals.

Table 7 Top 10 co-cited sources, number of documents, citations, and total link strength

Source	Citations	Total link strength
Journal of Marketing	409	8,207
Industrial Marketing Management	361	8,613
Journal of Business Research	360	7,516
Strategic Management Journal	232	5,764
Business Horizons	215	3,080
Journal of Business Ethics	212	3,019
Journal of Small Business Management	205	4,160
European Journal of Marketing	197	3,883
Journal of Small Business and Enterprise Development	195	2,663
Journal of Business Venturing	191	4,342

5 Conclusions

This study identified the current stance of literature and significant research trends for applying SMM in the entrepreneurship domain using bibliometric analysis, a popular and effective method of analysing literature review.

The performance analysis results will help scholars to comprehend the contributions of different research elements in the field. According to the results, research in this field has seen a constant upward trend since 2018 and is expected to grow shortly. The top journal analysis has been performed regarding the contribution (number of articles) and the combination of contribution and influence (h-index). It will aid scholars in searching for articles from appropriate sources and target the relevant source for their future publication in the field. Furthermore, the top author analysis will benefit academicians in finding the most productive authors, citing them, and looking for collaboration opportunities.

Likewise, the top country analysis regarding the contribution (number of articles) and influence (TC and AC) has been performed. It has been discovered that several developed nations, such as Australia, China, and Germany, have been performing substantial research into the application of SMM in entrepreneurship. Regarding TCs, the UK and the USA stand at the top. Future studies should concentrate on other parts of the world, particularly developing countries, regarding applying SMM in entrepreneurship. The

country analysis information will assist nations in understanding their position and seeking future alliances.

The word cloud map for authors' keywords can be helpful for scholars to extract the document using relevant keywords and understand the most widely studied aspects (topics) in the field. This study provides significant input in the literature by identifying which journals, authors, countries, and keywords have had the most significant impact in applying SMM in entrepreneurship.

The science mapping findings will assist scholars in understanding the inter-relationship between research elements. This study maps the co-occurrence, bibliographic coupling, and co-citation network diagrams.

Academicians will benefit from this bibliometric examination of the SMM literature in the entrepreneurship domain in various ways. For instance, it will help them understand the evolution, trends, most explored themes, etc. and give them a bird's eye view of the existing literature. Furthermore, the present study encourages aspiring scholars and academicians to perceive the gaps as opportunities. It incites them to make novel and creative contributions to the enrichment and extension of knowledge in applying SMM in entrepreneurship.

This study paves the way for a future researcher to analyse research constituents (authors, keywords, journals, etc.). The domain of entrepreneurship, mainly social media marketing, is very prominent and exciting. Social media marketing is getting accepted in all major research domains, and entrepreneurship is no exception. As most MSME sector firms lack adequate funds for marketing, social media marketing is the most optimum promotion vehicle in this sector. Research related to social media in entrepreneurship shall enable scholars to conceptualise research issues.

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6   Limitations and further scope of research

Like any other research, this study is also constrained in a few ways. First and foremost, this review is limited to the Scopus database. The critical shortcoming of this study is that it does not include notable works indexed in another prominent database (e.g., Web of Science and Google Scholar). Furthermore, documents were searched using the keywords 'social media marketing' AND 'entrepreneurship', which may give a different picture than other keywords. Future studies may incorporate a Narrow selection of topics to get an exact view of the studies and trends in the subject area, and a broader line of keywords should include another prominent database. Methods such as factor analysis, scientometric analysis, and PLS-SEM can be used to get a more accurate view.

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