South African Journal of Information Management
ISSN: (Online) 1560-683X, (Print) 2078-1865

Mapping the field of social media management – A bibliometric analysis

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Dates:
Received: 24 Jan. 2023
Accepted: 14 Aug. 2023
Published: 22 Dec. 2023

Project Research Registration:
2020SCiiS51 Date obtained: 01 September 2020
Project Research Number: 2

How to cite this article:
Mabe, K. & Bwalya, K.J., 2023, 'Mapping the field of social media management – A bibliometric analysis', *South African Journal of Information Management* 25(1), a1652. https://doi.org/10.4102/sajim.v25i1.1652

Background: The popularity of social media (SM) has led to the establishment of social media management (SMM) departments and new roles in organisations such as SM manager, SM coordinator, SM content specialist and SM director. The development of these SM roles motivated the execution of this research, as the study aimed to identify publications focusing on SMM tools or skills.

Objectives: Firstly, to map the body of research work centred on SMM tools or skills. Secondly, to map future research agendas from an information and knowledge management (IKM) perspective.

Method: A bibliometric analysis approach was used to identify studies, key sources, authors, keywords and countries publishing work on SMM tools or skills.

Results: A total of 501 SMM tools or skills studies were published over 11 years. The oldest work was published in 2011. The USA, the UK and Germany made up the top three publishing countries. The top 15 authors were from six countries: Italy, the USA, Spain, Australia, Germany and Denmark. The most frequently used keywords were social media, Facebook and Twitter.

Conclusion: The authors believed that by fulfilling the research aim, SM managers would be guided to the correct locations to enhance their SMM knowledge and skills.

Contribution: From reading this study, SMM researchers can locate SMM leading publishers. Additionally, the study identified various areas of future research that researchers may exploit and help progress research in the field of SMM.

Keywords: social media management; social networks; bibliometric analysis; information and knowledge management; competencies.

Introduction

Due to the popularity of social media (SM), organisations are investing heavily in various SM platforms. This popularity of SM has led to the establishment of departments internally focusing on social media management (SMM) (Alfonzo 2021:2). New roles are created in these departments, such as SM manager, SM coordinator, SM content specialist and SM director. The development of these SM roles motivated the execution of this research, as the study aimed to identify publications focusing on SMM tools or skills. From these studies, it was also essential to determine future points of departure from an information and knowledge management (IKM) perspective. SMM should not only be viewed from a marketing standpoint due to the critical actionable information generated from data collected on SM platforms.

The top four key focus areas of the articles published were the organisational adoption of SM for marketing, information sharing, entrepreneurship and establishing new value creation streams. Another research focus was using SM as a big data collection tool. Lastly, research focused on the impact of SM on the deliberation of social issues, for example, feminist movements, green initiatives and small-medium enterprise upliftment. Even though one of the key focuses is on big data collection, an IKM focus, it is also crucial to understand how the data is collected, used and analysed and what tools and skills are required. Additionally, it is essential to explore other avenues of IKM in SM, for example, its impact on knowledge management (KM) and competitive intelligence (CI) practices, which are not covered by the studies sampled in this study.

It can be argued that any person who has an SM account is essentially practising SMM. The growth of Internet usage has led to SM becoming intertwined with everyday life for many people

(Pourkarim et al. 2018:1). Because the Internet is omnipresent and social networks are popular, businesses use both the Internet and social networks to share and deliver information (Cheng et al. 2021:882). From a business perspective, using Internet technology introduces an opportunity to interact with large audiences comprising people from various backgrounds (Pourkarim et al. 2018:1). From an IKM perspective, these interactions need to be captured and analysed to assist the decision-making process.

Social media platforms can be defined as dynamic websites functioning through Internet technology, where people can develop, modify, distribute content and communicate with others using the same platforms located anywhere in the world (Pourkarim et al. 2018:1). For instance, universities utilise SM platforms for branding, attracting students, supporting enrolled students or even receiving donations (Alfonzo 2021:1). Another example is departments of health utilising SM platforms to distribute crucial health information for the survival of societies (Pourkarim et al. 2018:1).

According to Pourkarim et al. (2018:1), at the time of their study, 75% of adults were active on various SM platforms to obtain information. It has become routine for buyers to rely on SM to compare products before purchasing (Hu & Olivieri 2021:1768). Customer reviews on products are one of a consumer's main tools before making a purchase. An IKM practitioner would be responsible for capturing customer reviews for analysis purposes to identify, for example, key complaints to improve products or customer service.

Due to the capability to share information, SM is considered an essential marketing tool (Alfonzo 2021:1). Organisations can market their products and create dialogue with consumers on SM platforms (Hu & Olivieri 2021:1770). As such, acquiring the knowledge and understanding of the tools and skills is crucial for organisations to effectively manage their SM accounts, which can lead to business success.

Ultimately, this study aimed to identify studies, key sources, authors, keywords and countries publishing work on SMM tools or skills. The authors believed that by fulfilling the research aim, SM managers would be guided to the correct locations to enhance their SMM knowledge and skills.

Methodology

Bibliometric studies are utilised to determine the global research patterns for a specific field utilising previously published studies (Khudzari et al. 2018:52). Bibliometric studies are also used to analyse the bibliographic data of relevant papers (Khan et al. 2022:2), determined by the scope of the research and search string. Bibliometric analysis helps researchers gain insights into the scientific structure of a discipline and assess the impact of scientific journals, articles and researchers (Akhavan et al. 2016:2). The utilisation of bibliometrics speaks to the aim of the study, which was to determine the publication trends in studies focused on SMM tools or skills. The authors utilised ATLAS.ti to determine the focus areas, research strategies and future recommendations provided in the studies sourced via search.

Problem statement

The popularity of social media has led organisations investing heavily in social media platforms and creating new work roles for its management (Alfonzo 2021:2). With new work roles comes new competence requirements; hence, this study looked to identify publications focusing on SMM tools or skills. Identifying such publications will be beneficial to SM managers as they can, for one, keep up to date with trending or upcoming SM tools. Thus, the study followed a bibliometric analysis research strategy. Using this strategy, it was also possible to determine the future points of departure for SMM from an IKM perspective. Viewing SMM from an IKM perspective was essential because of the critical intelligence sourced from data collected on SM platforms. Additionally, businesses use SM to disseminate information (Cheng et al. 2021:882). Having a bibliometric understanding of SMM thus becomes prudent for SM managers as they will be directed to key information resources for the new SM roles that are being developed for SMM.

Data source and search strategy

The data sourcing process was completed between 01 September 2022 and 06 September 2022, using Scopus. The main focus of the study was research articles focusing on SMM tools or skills. The oldest article found was published in 2011, while the most recent article was published in 2022. The search string applied was '("social media management") and ("tools" or "skills")'. Because SM became popular in the late 2000s, there was no limitation regarding publication dates. The only restriction was on the language, as the authors only wanted to consider documents written in English. The search was not restricted to any part of the document, as SMM is connected to various concepts. For example, one article in the sample was titled 'the value of a "like"'. Had the authors restricted the search only to include articles with the key terms located in, for instance, the title, studies such as the one provided would have been excluded from the search results, thus negatively affecting the study's results. The search string resulted in 501 documents. The search outcomes were analysed according to year, source, author, affiliation, country and keywords. The authors utilised indicators such as CiteScore, total publications, h-index and total citations for rankings.

Bibliometric maps

The bibliographical, author key terms and citation data from the 501 articles were imported into VOSviewer using a comma-separated values (CSV) file. VOSviewer was utilised to create the visualisations seen in Figure 1 to Figure 3. For this study, these visualisations are essential as they provide visual depictions of the main countries, authors and keywords. Between any two items, there can be a relation.

The strength of the relationship is realised through the connection having a positive numerical value. Stronger links are recognised with higher values.

Concerning co-authorship analysis, the strength of a relationship between countries denotes the number of publications where two countries share authorship. On the other hand, the total link strength symbolises the strength of the co-authorship relationship of one country with other countries. Similarly, concerning co-occurrence analysis, the strength of a relationship between keywords denotes the number of publications where two keywords are both present.

Analysis of co-authorship

During the analysis of co-authorship, the authors included all 72 countries associated with the 1205 authors. The countries were categorised into seven continents: North America, Europe, Africa, South America, Oceania, Asia and the Middle East. Figure 2 highlights the co-authorship relationship between the countries through analysing co-citations.

Analysis of co-occurrence

The total number of keywords identified using VOSviewer was 2485, with 99 meeting the criteria to assess link strength as the minimum number of occurrences was set to five. Using overlay visualisations, the authors were able to determine the average publication year, link strength and the number of occurrences. Using the scale at the bottom of Figure 3, one can determine the average publication year based on the colour of a keyword.

Related works

Social media management is now considered a strategic function in business that assists with accomplishing business goals, missions and visions (Danyi & Chaudhri 2020:912). Social media managers must ensure that their organisation's SM strategy is aligned with business objectives (Alfonzo 2021:7), meaning business analysis is a required skill for SM managers. An SM strategy shapes how an organisation can accomplish its mission through the use of SM in an efficient manner (Danyi & Chaudhri 2020:915).

In creating an SM strategy, the SM manager needs to identify suitable platforms for the business, which requires, for example, analysing data on customer preferences (Alfonzo 2021:8). An SM manager thus has to strategically develop and implement SM tactics, such as identifying the appropriate platforms and content to share, to be successful (Danyi & Chaudhri 2020:915). Social media managers must also be aware of policies, rules and regulations that govern every platform, such as copyright law (Pourkarim et al. 2018:2) and data protection laws.

The appropriateness of a platform is determined by its users, the reach one can get, and the features available (Danyi & Chaudhri 2020:916). Social media platforms are continuously changing their algorithms (Chawla 2021:5040). Hence, SM managers need to constantly work on their search engine optimisation (SEO) using technical requirements to increase their ranking in search engines (Ahmad, Mahdee & Bakar 2022:3), and improve their online visibility (Mladenovic et al. 2023:662). Search engine optimisation plays a role as these social networks use algorithms to prioritise content. For example, Facebook's algorithm favours content according to shares. Therefore, an SM manager looking to use Facebook needs to create content that encourages sharing (Alfonzo 2021:8).

When developing a strategy, SM managers also need to know the participation restriction for users based on their country of residence. For instance, specific Twitter, Facebook, and YouTube content and features are not available in some countries (Pourkarim et al. 2018:2). Having this knowledge readily available for the SM manager is essential. Hence, effective SMM requires practitioners to have strategic planning, research, communication, listening and analysis skills (Danyi & Chaudhri 2020:911).

Social media managers must manage online content such as consumer reviews and ensure that any product misinformation is addressed by, for example, asking the SM platform to remove such content (Hu & Olivieri 2021:1775), as competitors will have access to their SM pages. Therefore, SM managers need to be consumers of knowledge and be information literate (Danyi & Chaudhri 2020:922–923). Social media managers need to be able to identify patterns and outliers through data analysis and provide recommendations on resolving issues identified (Alfonzo 2021:3) using knowledge.

Social media managers are required to analyse data using metrics such as likes and shares and qualitative data from comments (Alfonzo 2021:3). Metrics are used to measure content performance and to determine the most suitable platform and type of content to use (Chawla 2021:5035). Most SM platforms allow for both free and paid analytics of the data generated on them, and there are various third-party analytics services available for organisations to leverage on SM data (Danyi & Chaudhri 2020:923).

Social media platforms provide analytical tools that SM managers can use to evaluate themselves and campaign success (Pourkarim et al. 2018:2). Social media management allows SM managers to gather data on campaigns to help determine the strengths and weaknesses of a campaign, which can help increase organisational profit (Kushcheva & Eilola 2023:164). Data collected from SM includes consumer behaviour (Danyi & Chaudhri 2020:916), which can be used for content or product development.

Qualitative data analysis is required for SM managers as they need to understand how users interact with their posts and be able to tailor SM strategies for unique objectives (Danyi &

Chaudhri 2020:924). Users leave comments such as personal views (Hu & Olivieri 2021:1769) on products or societal issues. Likes, comments and shares are basic SM metrics that anyone can interpret. There are more complex data that require SM managers to have advanced expertise to apply and understand them (Chawla 2021:5047). For example, assessing the quality of writing and video production, relevance, alignment to business objectives, appropriateness of messaging, and readability (Danyi & Chaudhri 2020:924). Understanding complex data can help ascertain, for example, why people unfollow a page.

Furthermore, SMM feeds knowledge management as the SM manager often needs to document the value of their team's work to learn from victories and mistakes (Danyi & Chaudhri 2020:922). These documentations then feed organisations' corporate memory. Like true IKM practitioners, SM managers ensure easy access to and retrieval of information (Kushcheva & Eilola 2023:164).

Results and discussion

Publication output and growth of research interest

Over 11 years, 501 articles on SMM tools or skills have been published (see Figure 1). The oldest work was published in 2011, and there have been publications every year since. The trend in publication numbers is that there is a fluctuation over the 11 years, with an up-and-down pattern. The year with the most publications was 2021, and this could be a result of organisations realising the importance of SM post the 2020 global lockdowns due to coronavirus disease 2019 (COVID-19). Even with the up-down pattern being present, the growth of publications has been constant, with publications increasing in both the up-and-down years. For instance, there were three publications in 2011 and only two in 2012. However, there were 38 in 2013 and 29 in 2014. The trend continues as there were 46 in 2015 and 34 in 2016. Fifty-seven and 55 were published in 2017 and 2018, respectively, and 58 and 49 in 2019 and 2020. In 2021, 79 articles were published, while only 51 were published in 2022 at the time of data collection (indicated in the Methodology section). These numbers indicate that the later down years have higher publication numbers than previous down years; the same is true for the up years. As such, the researchers expect this trend to continue, suggesting that 2023 will be an up year with more than 79 publications focusing on SMM tools or skills. It is important to note that most articles were not accessible as they were not open source, and even with the authors having a subscription through their university, they could not access some of the articles. As at 06 September 2022, 145 (28.94%) of the articles published were open-access.

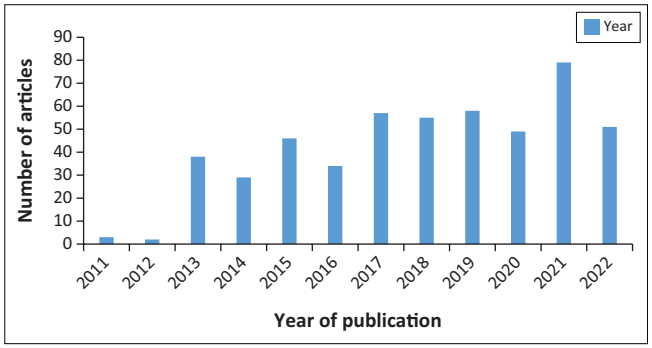


FIGURE 1: Documents published per year.

Social media is a tool utilised across various fields. However, through analysing subject area publications, it was found that research was done mostly in the Business Management and Accounting subject area, with 251 (50.1%) articles published focusing on SMM tools or skills. The number of publications under the Business Management and Accounting subject area further indicates the perceived criticality of SM to business success. Other prominent subject areas were Computer Science and Social Science, with 179 (35.73%) and 178 (35.53%) articles published, respectively. In total, there were publications in 24 subject areas, indicating the extent to which SMM should be considered across multiple disciplines and organisations of various natures, from Business to Healthcare and Earth and Planetary Sciences.

Additionally, before limiting the results to English, it was found that 512 documents in total were published, in six different languages, with English being the most prominent, with 501 (97.85%) articles published. Other languages included Spanish 6 (1.17%), Portuguese 2 (0.39%), and German, Persian and Slovenian, all having 1 (0.19%) article published. Please note that the percentages do not reach 100 as they are only written up to the last two decimals.

Preferred journals

Analysis revealed that the top 10 most prevalent journals were published by six distinct publishers (see Table 1). SpringerLink published the most with 3, followed by Emerald and ScienceDirect with 2 each. The Multidisciplinary Digital Publishing Institute, Association for Computing Machinery (ACM) Digital Library, and informsPubsOnline published the other papers. The most productive journals included *Lecture Notes in Computer Science* and *Sustainability Switzerland*, with a total of 6 (1.19%) publications each. In third, fourth and fifth were the *ACM International Conference Proceeding Series*, *Contributions to Management Science* and *Journal of Business and Industrial Marketing*, with 5 (0.99%) publications each. *Sustainability Switzerland* was the journal with the most overall citations, with 181 699. At the same time, *Lecture Notes in Computer Science* had the most cited article ('U-net: Convolutional networks for biomedical image segmentation [Conf paper]') being cited 27 131 times. However, in terms of the articles relating to SMM tools or skills, *Information Systems Research* had the most cited article ('Social media and business transformation: A Framework for research'), which was cited 585 times.

According to the CiteScore 2021 report, four articles had a score of five and above. The journal with the highest CiteScore was *Industrial Marketing Management*, and on the

TABLE 1: Preferred journals.

Journal	TP (%)	TC	CiteScore 2021	The most cited article (reference)	Times cited	Publisher
Lecture Notes in Computer Science	6	172 674	2.1	*Twitter User Recommendation for Gaining Followers*	2	SpringerLink
Sustainability Switzerland	6	181 699	5.0	*Opinion mining on social media data: Sentiment analysis of user preferences*	18	Multidisciplinary Digital Publishing Institute
ACM International Conference Proceeding Series	5	44 929	1.0	*Management of social media for disaster risk reduction and mitigation in Philippine local government units*	3	ACM Digital Library
Contributions to Management Science	5	745	0.7	*Big data for competitiveness of SMEs: Use of consumer analytic to identify niche markets*	13	SpringerLink
Journal of Business and Industrial Marketing	5	2764	4.8	*Why and how are social media used in a B2B context, and which stakeholders are involved?*	38	Emerald
Lecture Notes in Business Information Processing	5	4586	1.8	*Social CRM: Biggest challenges to make it work in the real world*	17	SpringerLink
Public Relations Review	5	2152	6.0	*Polarised public opinion responding to corporate social advocacy: Social network analysis of boycotters and advocators*	43	ScienceDirect
Industrial Marketing Management	4	8041	10.4	*A network perspective on idea and innovation crowdsourcing in industrial firms*	93	ScienceDirect
Information Systems Research	4	2230	9.1	*Social media and business transformation: A Framework for research*	585	informsPubsOnline
Journal of Communication Management	4	423	4.0	*Social media governance: Regulatory frameworks for successful online communications*	52	Emerald

SMEs, small and medium-sized enterprises; B2B, Business to business; CRM, customer relationship management; ACM, Association for Computing Machinery; TP, total publications; TC, total citations.

TABLE 2: Leading countries, top institutions, and international collaboration.

Rank	Country	TPC	Most productive academic institution	TPI	Rank	Country	TPC	Most productive academic institution	TPI
1	USA	123	University of Minnesota Twin Cities	6	9	Finland	16	Tampere University	6
2	UK	52	King's College London	4	10	Denmark	14	Copenhagen Business School	6
3	Germany	41	Leipzig University	6	11	Austria	13	Vienna University of Economics and Business	3
4	Italy	37	Vita-Salute San Raffaele University	7	12	India	12	Symbiosis International Deemed University	3
5	Spain	37	Autonomous University of Barcelona	4	13	Iran	12	University of Tehran	7
6	Australia	28	Curtin University	4	14	Switzerland	12	University of Neuchâtel	3
7	Canada	26	McGill University	4	15	Sweden	10	California State University, Fullerton	2
8	China	17	Xi'an Jiaotong University	2					

TPC, total publications per country; TPI, total publications per institution.

other hand, *Contributions to Management Science* had the lowest, scoring 0.7. According to Hamburger (2020), a CiteScore indicates the value of a journal, with a higher score suggesting a higher value. The CiteScores denote that Scopus views *Contributions to Management Science* as the least valuable journal in the top 10 journals. It is, however, crucial that publishers not only consider CiteScore but also whether a journal will get their work to the appropriate audience. Total publications and total citations in Table 1 stand for the total publications and total citations. The total publications refer to those related to SMM and not the journal's entire publications library. However, the citations represent the journal's entire citation history. Times cited speaks to the number of times the most cited article was referenced.

Leading countries, top-rated institutions and international collaboration

Table 2 provides the most prolific countries in terms of publishing work related to SMM tools or skills. The USA contributed the most articles with 123 (24.55%). However, the institutions with the most publications were from Italy and Iran, Vita-Salute San Raffaele University and the University of Tehran, contributing 7 (1.39%) articles on SMM tools or skills each. The UK and Germany round up the top three publishing countries. Germany's Leipzig University also forms part of the top three publishing institutions, while King's College London, being the leading publishing institution in the UK, does not. TPC and TPI in Table 2 stand for total publications per country and total publications per institution. Both the TPC and TPI refer to publications related to SMM.

When analysing co-authorship (see Figure 2) between countries, the researchers required countries to have published at least five documents, which reduced the results from 76 to 33 countries. There were 82 total links, and the total link strength was 148. The top three collaborators were the USA, the UK and Canada. From 123 articles, the USA had 20 links. This finding meant that 16.26% of the articles published in the USA were collaborated on with other countries. While Canada was seventh in terms of total publications contributed, it was tied with the UK at 17 links. The percentile representation in terms of articles collaborated on was 65.38% for Canada and 32.69% for the UK. It can be assumed from these numbers that Canadian publishers believed in more international collaborative research work than both the USA and the UK.

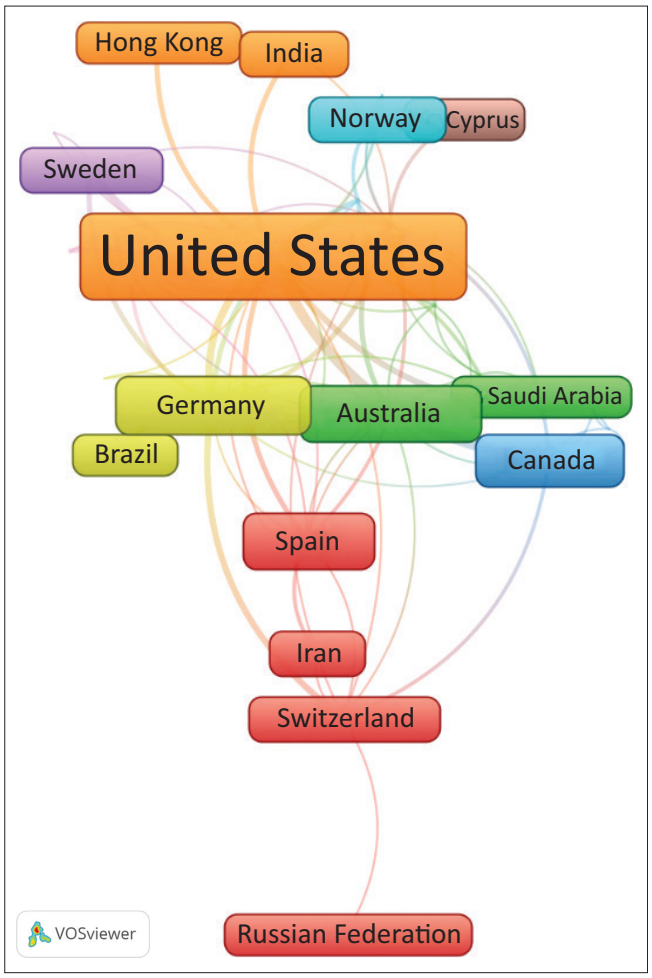


FIGURE 2: Co-citation countries.

Studies on SMM tools or skills were also found to be published by authors from 22 institutions that can be found on the 2021 top 100 institutions webometrics list. This indicates that the best institutions realised the importance of studying SMM. Table 3 provides the institutions' global ranking list.

Leading authors

The most productive authors in SMM tools or skills are provided in Table 4. Even though the USA had the most published articles, most authors were from Italy (six authors). The top 15 authors are from six countries: Italy, the USA (two authors), Spain (two authors), Australia (two authors), Germany (two authors) and Denmark (one author). The finding here is that most of the top authors were from Europe. The publications took place between 2013 and 2021. Vincenza Gianfredi from the University of Perugia, Italy, led the list with seven publications related to SMM tools or skills, a record of 112 total publications, 23 h-index, and 1162 total citations. The top three was rounded off by two more Europeans, Ileana Zeler and Roman Beck, both contributing four studies each to the discipline of SMM.

Ileane Zeler from the Autonomous University of Barcelona, Spain, had a record of eight total publications with 25 total citations and an h-index of 3. On the other hand, Roman Beck was affiliated to the IT University of Copenhagen, in Denmark.

TABLE 3: Authors' institution's global ranking.

Number	Institution	Global ranking
1	Stanford University	2
2	Massachusetts Institute of Technology	3
3	Pennsylvania State University	18
4	New York University	23
5	The University of Texas at Austin	25
6	University of Florida	33
7	Ohio State University	35
8	Michigan State University	47
9	The University of Sydney	51
10	Monash University	57
11	McGill University	60
12	The University of Manchester	61
13	King's College London	67
14	Shanghai Jiao Tong University	68
15	University of California, Santa Barbara	75
16	Virginia Polytechnic Institute and State University	83
17	University of Waterloo	87
18	Nanyang Technological University	88
19	Universität Zürich	92
20	Indiana University Bloomington	93
21	Universitetet i Oslo	94
22	University of Massachusetts Amherst	99

Roman Beck had a total of 117 publications with 2241 total citations and an h-index of 22. The top authors consisted of three authors from North America, with two being from the USA and one from Puerto Rico. The two authors from the USA ranked fourth (Ram Bezawada, contributing four studies on SMM) and tenth (Alisa Agozzino, contributing three studies on SMM tools or skills). The author from Puerto Rico, Carlos Figueroa, contributed three studies on SMM and ranked fifteenth. Ram Bezawada from City University of New York, USA, had 19 total publications, with 1062 total citations and an h-index of 9. Alisa Agozzino from Ohio Northern University, USA, had five total publications, meaning that most (60%) of her publications were focused on SMM. The result suggests that SMM is her niche research area. Alisa Agozzino had four total publications and an h-index of 1. Carlos Figueroa from the University of Turabo, Puerto Rico, had three total publications meaning that SMM was his only focus and may suggest that he was a new researcher. As a result, Carlos had no citations and an h-index of 0.

It is important to note that two top authors, Francesco Corcoglioniti and Olaf Reinhold, had articles in Table 1. Francesco Corcoglioniti and Olaf Reinhold authored the most cited articles in the *Lecture Notes in Computer Science* journal and the *Lecture Notes in Business Information Processing* journal, respectively.

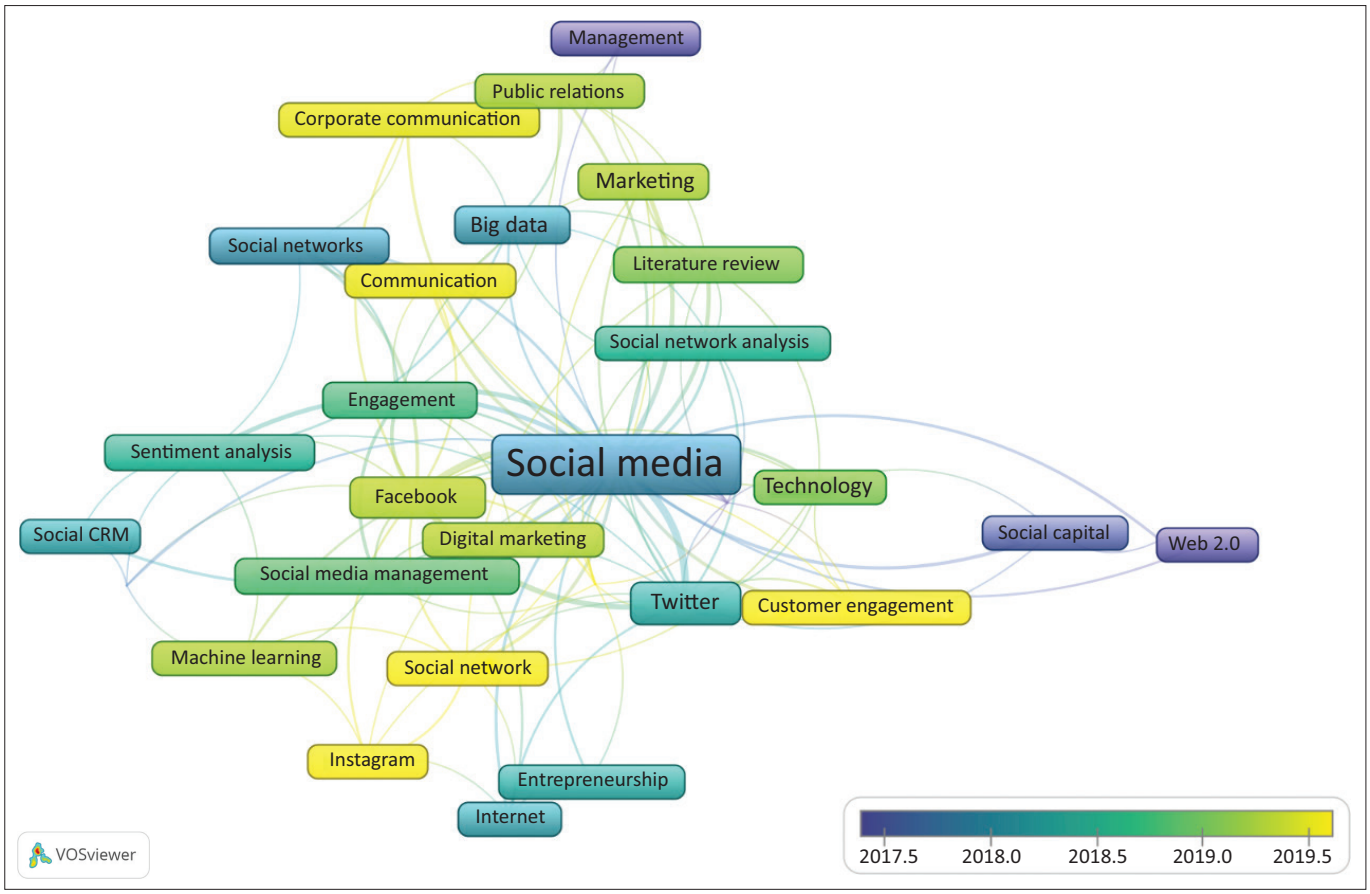
Author keywords co-occurrence

One thousand three hundred author keywords co-occurrence were identified, among which 31 (2.38%) co-occurred at least five times, thus meeting the threshold for map generation in VOSviewer (see Figure 3). Fourteen (1.07%) keywords co-occurred four times, 41 (3.15%) keywords co-occurred thrice, 114 (8.77%) keywords co-occurred twice, meaning the majority of keywords, 1137 (87.46%), co-occurred once.

TABLE 4: Leading authors.

Author	Scopus author ID	Year of 1st publication	TP	h-index	TC	Current affiliation	Country
Gianfredi, Vincenza	57189519620	2014	112	23	1162	University of Perugia	Perugia, Italy
Zeler, Ileana	57212515024	2019	8	3	25	Autonomous University of Barcelona	Barcelona, Spain
Beck, Roman	7403182380	2001	117	22	2241	IT University of Copenhagen	Copenhagen, Denmark
Bezawada, Ram	26639144500	2009	19	9	1062	City University of New York	New York, USA
Fronzetti Colladon, Andrea	55876528100	2013	57	16	753	University of Perugia	Perugia, Italy
Kumar, Ashish	55661784400	2012	23	9	977	RMIT University	Melbourne, Australia
Odone, Anna	41862260400	2011	241	37	4590	University of Pavia	Pavia, Italy
Reinhold, Olaf	55490710800	2008	28	7	187	Social CRM Research Center	Leipzig, Germany
Signorelli, Carlo	7005736295	1994	319	36	4676	Vita-Salute San Raffaele University	Milan, Italy
Agozzino, Alisa	55867433200	2013	5	1	4	Ohio Northern University	Ada, USA
Alt, Rainer	56267296300	1994	174	18	1619	Leipzig University	Leipzig, Germany
Capriotti, Paul	18433333100	1999	29	11	768	University of Rovira I Virgili	Tarragona, Spain
Corcoglioniti, Francesco	25928189600	2007	47	9	313	Free University of Bozen-Bolzano	Bozen-Bolzano, Italy
Davidson, Robyn A.	36124755400	2005	12	4	251	University of Adelaide	Adelaide, Australia
Figueroa, Carlos	56915413500	2013	3	0	0	University of Turabo	Rico, Puerto Rico

TP, total publications; TC, total citations; CRM, customer relationship management.



CRM, customer relationship management.

FIGURE 3: Keywords co-occurrence.

Terminology and concept

Data revealed that the commonly utilised keyword was social media, with 160 occurrences and a link strength of 126. The second and third most used keywords are names of SM platforms, Facebook (28 occurrences and total link strength of 53) and Twitter (31 occurrences and total link strength of 48). The frequency of the keyword occurrence 'Facebook' and 'Twitter' suggests that authors conducted research based on these two platforms more than other SM platforms. For instance, Instagram also appeared but only had 6 occurrences and 8 links. Engagement and marketing round up the top 5 keywords used with 12 and 11 occurrences and total link strengths of 26 and 16, respectively. Engagements are vital as they are a key metric in determining how well an SM post or campaign is doing or has done based on audience interaction (Kenan 2022).

It is important to note that there was a possibility of combining the numbers of the keywords social network and social networks. With the combination, the keyword would have made it into the top five. The authors selected to keep the

keywords separate as they could have been applied for different purposes, such as the practice of social networking, having a social network of people or organisations or simply discussing different social networking platforms.

Topics of interest

Outside of the top 5, there were other topics of interest, such as literature review, with 8 occurrences and 14 links. The result suggests that there had already been enough research done on SMM to conduct a study with a literature review research strategy. Additional topics of interest are identified due to their relation to one another. For instance, Web 2.0 (6 occurrences, 3 links) provides the foundations of social networking by providing tools that allow more users to generate online content for improved information sharing (Kenton 2022). With the definition of web 2.0, it makes sense why the average publication year is 2017 (Figure 3). The focus in 2022 is no longer on what allows SM to exist but on how SM is or can be utilised. Other keywords included sentiment analysis (13 occurrences, 15 links), communication (7 occurrences, 11 links), and customer relationship management (5 occurrences, 6 links). Communicating with consumers makes it possible to conduct sentiment analysis, enabling organisations to determine how people feel about their brand (Gupta 2018). Learning how consumers view their brand can assist with customer relationship management, as customer management strategies are created based on their findings.

Big data (17 occurrences, 11 links), social media marketing (10 occurrences, 11 links), machine learning (6 occurrences, 7 links), text mining (5 occurrences, 6 links), digital marketing (5 occurrences, 6 links) and innovation (5 occurrences, 5 links) are additional topics of interest. Text mining big data generated from SM helps organisations be more innovative by enabling the identification of essential information and patterns (Dantoni 2022). Technologies such as machine learning are important for SMM because they assist organisations with automatically learning user behaviour (Raz 2022), which enables the development of effective SM and digital marketing strategies.

Conclusion and future research agenda

The authors successfully determined studies, key sources, authors, keywords and countries publishing work on SMM tools or skills. The limitations of the study were that the study only used one database for data collection. It, therefore, becomes possible that expanding the selection of databases may yield different results. Additionally, the search string used limited the study results to studies focusing on SMM skills or tools. Future studies can look at SMM in its general sense without the limitation of skills or tools.

Most of the studies followed a secondary data analysis research approach in the form of text reviews, literature reviews, systematic reviews, rapid reviews and using the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) protocol. As such, the recommendations for future research included using primary data. For example, one study recommended the sampling of policymakers to determine SM use regulations for healthcare (Zakkar, Meyer & Janes 2022:98). From an IKM perspective, a key recommendation was exploring people's exposure to information on social networks and how this information then influences public opinion (Masip, Ruiz-Caballero & Jaume 2019:9). Assessing the knowledge of processes and legal requirements associated with writing and publishing news on council websites (Rodríguez-Breijo, Simelio & Molina-Rodríguez-Navas 2021:15), was also recommended.

A key recommendation is to study how SM platforms can be improved using data collected on the platform itself (Zhang et al. 2020:9–10). Another suggestion was to investigate the use of Really Simple Syndication (RSS), which helps deliver updated or distributed and preferred information to the user as and when it is shared (Techopedia 2022). However, the recommendation was that the RSS tool design and development must be examined (Tejada-Castro et al. 2018:675). With communication being identified as an essential soft skill for IKM practitioners by Mabe and Bwalya (2022:14), it is suggested that studying how digital communication changes over time using a longitudinal approach is important (Pianese & Belfiore 2021:10).

Future research has to look into how SM adoption from an organisational viewpoint contributes to accomplishing work goals (Kapoor et al. 2018:554). Additionally, it is suggested that future studies look into how digital self-tracking enables new types of control and introduces new limits of control (Elmholdt, Elmholdt & Haahr 2021:181). Another key element to evaluate is the effects of numbers on social and business practices (Islam 2022:208). From an IKM perspective, the data gathered from SM can be used to assist the decision-making process, thus making a study focusing on, for example, how SM impacts organisational decision-making important.

From an online communities' standpoint, future research must look into how the relationship between intrinsic and extrinsic rewards help nurture and sustain users' internal motivations (Kapoor et al. 2018:554). Understanding users' motivation can help organisations build relevant products for users and thus gain a competitive advantage, a key focus for CI departments. Additionally, in future, online communities should be looked at as an ecosystem as opposed to simply analysing their relationship with organisations (Kapoor et al. 2018:554).

With SMM, it is crucial to look into whether a type of user determines if an organisation's content is distributed more frequently (Nelson 2019:77). One way of conducting this study is, for example, looking into whether users' tweets are shared more often than those tweeted by the organisation itself. This examination can assist in, for example, determining whether or the extent to which an organisation needs to

invest in SM influencers. Assessing the dimensions of content, such as types of posts and post sentiment, to determine whether they impact the strategic use of SM (Enjolras 2022:20) is also an important research focus. A key focus of collecting data on SM is data privacy. Thus, future work must look into the ethics of proprietorship and confidentiality of personal data, consent in gathering data and authorisation for use (Islam 2022:208).

It is vital to ascertain why SM users and non-users adopt cryptocurrency. Additionally, it is recommended that researchers investigate the role of cryptocurrency forms (i.e. bitcoin vs. ether) in their selection. For example, how users view diverse cryptocurrency ventures considering their reputation, the team behind them, and influencers who support them, among others (Abooleet & Fang 2022:345).

It is suggested that researchers investigate how online-only organisations and social movements obtain and then take advantage of online social capital. Additionally, researchers must seek new ways of measuring SM engagement and social capital, considering their various dimensions. For instance, developing an index with different weightings to measure the success of an outreach programme. Studying how social capital is transformed to provide tangible benefits such as revenue (Xu & Saxton 2019:45) is also recommended. Furthermore, it is provided that investigating how women can leverage SM to address gender inequality is essential. Some possible research questions are: What digital controls can women manipulate to surmount the gender disproportion in entrepreneurship? How do digital developments influence women's decisions to be entrepreneurs? What tools can an organisation design and put in place to juxtapose gender stereotypes in entrepreneurship, and what role does digitalisation play? (Ughetto et al. 2020:310). These questions would stand a significant chance to contribute to the body of knowledge if they are pursued with local contextual nuances of the place the study is conducted.

Acknowledgements

Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

K.M. and K.J.B. contributed equally to this work.

Ethical considerations

The University of Johannesburg granted ethical approval for this research.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

The data that support the findings of this study are not openly available but are available from the corresponding author, K.M., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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