

Measuring the Trend of the Research on Social Media in SMEs: A Bibliometric Evaluation

Mohd Hisham Mohd Sharif*, Aidi Ahmi, Khairina Rosli

Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia 06010 UUM Sintok, Kedah, Malaysia

hisham79@uum.edu.my

Article Info

Volume 82

Page Number: 6437 - 6446

Publication Issue:

January-February 2020

Abstract

Business organizations have recently been attracted to social media applications to reach their customers. However, limited scholarly attention has been devoted to improving the current understanding of social media across business organizations, especially small and medium enterprises (SMEs). This study addresses this shortcoming by exploring important recent publications related to social media. Therefore, this paper aims to analyze, and report published documents related to social media based on the data obtained from the Scopus database. As of July 2019, a total of 366 documents is retrieved and analyzed. This paper reports the research output, documents and source types, language, subject area, most active source title, distribution of publications by countries, most active institutions, authorship, keywords, title and abstract analysis and citation analysis. The results show that there is an increased development rate of literature on social media from 2001 until 2020. Various studies have been conducted on social media involving the collaboration of multi-authors, published in various languages, by a total of 982 authors from 463 different countries and 628 institutions.

Article History

Article Received: 18 May 2019

Revised: 14 July 2019

Accepted: 22 December 2019

Publication: 01 February 2020

Keywords: Social Media, SME, Bibliometric Analysis

1. Introduction

In the last few decades, applications related to the Internet, such as the Web, email, and social media, have provided many opportunities to enhance global connectivity for individuals and organizations. The Internet has evolved rapidly from the time of its creation and has since transformed from the traditional World Wide Web platform to a more modern generation of the Web, known as Web 2.0 (Kaplan & Haenlein, 2010; O'Reilly, 2007). Web 2.0 is more participative and interactive and has become an essential platform for modern applications such as social media applications (O'Reilly, 2007). Social media, in particular, has become a new trend that is ubiquitous and known by almost everyone on the planet.

The modern history of social media applications starts when Randy Conrads, created the first social networking application, which is called Classmates.com (Boyd & Ellison, 2007). This application allows its users

to affiliate with their past high school and college friends and searches its database to look for other affiliations. A complete version of the social networking site called Six Degrees was introduced in 1998, where this application allows its users to create profiles and lists friends, functions that cannot be done with Classmates.com. Since then, several other social media applications were developed, especially during the dot.com years in the early 2000s. Applications such as Wikipedia, LiveJournal, WordPress, Friendster, and Blogger continue to grow in popularity and attracted thousands of users, especially youngsters. The term social media was only first used officially in 2005 to represent various forms of internet-based applications that are created on top of the more modern version of the World Wide Web. The platform is normally referred to as Web 2.0, a technology that provides a method where all users of the web can participate and collaborate in modifying the web (Boyd & Ellison, 2007; Kaplan & Haenlein,

2010). Social media and Web 2.0 are two distinct concepts and have been used interchangeably in academic literature. Web 2.0 represents the newer platform foundation of the web which consists of a set of technologies (e.g., Adobe Flash, RSS (Really Simple Syndication), AJAX (Asynchronous Java Script etc.) to enable richer content to be published on the web (O'Reilly 2007). In contrast, social media is based on User Generated Content (UGC) – various forms of media content created by internet users and available on the web-based on Web 2.0 technology (Kaplan & Haenlein, 2010).

Individual and organizational use of social media is expanding. Approximately 250,000 individuals register daily to use social media applications such as Facebook. It is estimated that by 2023, the number of individuals and organizations that have social networking accounts will exceed three billion. In Malaysia, it is estimated that there are 25 million active users of social media applications such as Facebook, Twitter, and Instagram (Statista, 2019). Business organizations around the world are adopting social media applications to gain a competitive advantage. This is due to the benefits offered by social media that can reach more customers in different and innovative ways (Wang, Pauleen, & Zhang, 2016). Social media applications are used primarily to engage with customers, especially providing service and support (Abed, Dwivedi, & Williams, 2015; Wang et al., 2016). Other than marketing, business organizations use social media to increase productivity and to collaborate, particularly in the domain of knowledge sharing among employees (Culnan, McHugh, & Zubillaga, 2010).

The primary focus of previous research concerning social media in business firms is the method of how social media can help businesses flourish. For example, Culnan et al. (2010) explore how Fortune 500 companies in the U.S use social media. They use three case studies of Walmart, HP, and Coca Cola to identify best practices that can be applied by businesses to engage with more customers. The importance of using social media in a business environment, especially to reach young customers, cannot be neglected (Carr & Hayes, 2015). Social media's role in creating positive vibes in the working environment is also trending (Razmerita, Kirchner, & Nabeth, 2014; Weber, Fulk, & Monge, 2016). The use of social media services could positively affect employees' motivation, which will likely improve the organization they served (Weber et al., 2016). The use of wikis, another prominent social media application, can facilitate knowledge creation and share among employees (Meijer & Torenvlied, 2016). All these studies indicate that social media can enhance an organizations' business value by providing knowledge-sharing capabilities, better engagement with customers and among employers, improvement in business processes and, more importantly, better marketing of products that will lead to financial benefits. Despite the growing amount of investment of financial and organizational resources to improve social media initiatives, the level of adoption of

social media applications in business organizations is still low, and most of the organizations do not utilize the full features of social media applications (Ainin, Parveen, Moghavvemi, Jaafar, & Mohd Shuib, 2015). Business organizations need to have clear objectives and strategies when implementing social media to ensure success.

Despite the growing interest in social research, there have been relatively limited attempts to report the trend of literature, particularly those that used a bibliometric approach. A study by Leung, Sun, Bai (2017), for example, report the citation count and co-citation analysis on the documents gathered only from tourism and hospitality journal. Another study conducted by Sa'ed, Sweileh, Awang, and Al-Jabi (2018), explored mental health issues related to social media. Another recent study by Hashim, Rashid and Atalla (2018), specifically focus on the study of the use of social media in within Higher Education Institution. While all of these research provide some meaningful insight on the growth of research on social media, more exploration is needed in order to understand social media research, particularly its impact on business organizations, particularly SMEs.

2. Methods

This paper focuses on evaluating current trends and the latest development of academic literature on social media in SMEs using the bibliometric analysis method. Network visualization and bibliometric indicators are used in this paper to present the results.

Bibliometric Analysis

Zhang, Chen, Wang and Ordóñez de Pablos (2016) define bibliometric research as a method that utilizes a specific statistical technique to analyze published documents. Ahmi and Mohammad (2019) highlighted that bibliometric analysis is gaining popularity as one of the methods in revealing research trends in specific areas. The bibliometric analysis gives insights into focused research areas by revealing detailed information about the collection of publications from specific databases such as publication type, location of publication, h-index, authors, keywords frequency and the number of citations (Ahmi & Nasir, 2019). The analysis is being done using VOSviewer, a freely available tool to construct and visualize the relationship of networks. VOSviewer also produces a visualization of network co-occurrence based on the terms extracted from the literature review. Using VOSviewer, this study also further investigate the impact of publications based on citation counts, impact per publications, and citation per publication.

Source and Data Collection

Considering the fact that the Scopus database is one of the most prominent academic databases available today, with approximately 36,000 titles from about 11,000 publishers, this study employs the Scopus database as the primary source for data collection. The keyword of social media and SME was used in the exploratory process on

23rd October 2019. This query produced a total of 366 documents. Tools such as Microsoft Excel and VOSviewer is used for further analysis.

3. Results and Findings

The analysis for the extracted academic work in the search process was based on the following attributes: research productivity, document and source type, language of documents, subject area, most active source title, distribution of publication by countries, most active institutions, authorship analysis, keywords analysis, title, and abstract analysis and citation analysis. Annual growth data up until 2020 were also presented in the findings which include their frequency and cumulative percentage.

Research Productivity

Research productivity is examined in this research based on the number of documents produced per year. Publication year examination of the documents enables the researcher to understand the pattern of the chosen topic over time (Ahmi & Mohamad, 2019).

Research on social media and SMEs firstly published in the year 2009. After a two-year gap, publication activities in this topic gain momentum and become a hot topic from year to year. 2019 is the highest year for publication in this area, with the total of the article published is from 2009 reaches 366. Figure 1 shows the growth of publication activities of this subject from 2009 to 2020. Based on the pattern and growth, it seems that social media and SMEs will still be a popular theme for academics to investigate.

Table 1: Year of Publications

Year	Total	% (N=366)	Cumulative Percent
2009	1	0.27	0.27
2011	9	2.46	2.73
2012	15	4.10	6.83
2013	34	9.29	16.12
2014	33	9.02	25.14
2015	37	10.11	35.25
2016	52	14.21	49.45
2017	51	13.93	63.39
2018	58	15.85	79.23
2019	75	20.49	99.73
2020	1	0.27	100.00
Total	366	100.00	

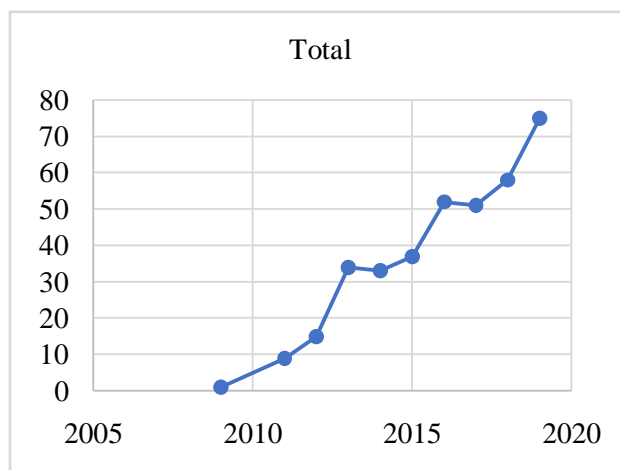


Figure 1: Document by Year

Document and Source Types

Further analysis was done to analyze the type of documents and source types in which the research on social media in SMEs was published. Results of document type as presented in Table 2, show that more than half of social media and SMEs studies are published as an article (59.56%), followed by conference paper (24.59%) and book chapter (10.11%). Others were found as a review document (2.73%), book (1.37%), and editorial document (0.55%). Only one research was published each as a conference review, a letter and a note document.

Table 2: Document Type

Document Type	Total	% (N=366)
Article	218	59.56
Conference Paper	90	24.59
Book Chapter	37	10.11
Review	10	2.73
Book	5	1.37
Editorial	2	0.55
Conference Review	1	0.27
Letter	1	0.27
Note	1	0.27
Undefined	1	0.27
Total	366	100.00

The research also found that these documents are categorised into four source types, namely, journals, conference proceedings, books and book series (see Table 3). Out of 366 documents, 63.39% of the documents are published in journals, 19.40% in conference proceedings, 10.66% in books, whereas 6.56% in book series.

Table 3: Source Type

Source Type	Total	% (N=366)
Journals	232	63.39
Conference Proceedings	71	19.40
Books	39	10.66
Book Series	24	6.56
Total	366	100.00

Languages of Documents

The gathered data sets also have been analyzed to determine the language used in the published documents. As shown in Table 4, the language used for publications on social media and SMEs are mostly in English (98.64%). There are other languages used for some of the publication i.e., Spanish, Czech and German (two and one documents respectively). It is also found that three of the publications were prepared in dual languages.

Table 4: Languages Used for Publications

Language	Total*	% (N=369)
English	364	98.64
Spanish	2	0.54
Czech	1	0.27
German	1	0.27
Total	369	100.00

*3 documents have been prepared in dual languages

Subject Area

Next, Table 5 summaries the publications based on the subject area. As social media and SMEs studies are related to technology and business, it is found that more than half of the publications were categorised under business, management and accounting area which represents 52.19% of the total publications. This is followed by computer science (39.89%), social sciences (28.69%), economics, econometrics, and finance (15.85%) and engineering (10.93%). Other subject areas were below 10% of the total publications, among others; decision sciences, mathematics, environmental science, energy, arts and humanities, psychology and agricultural and biological sciences.

Table 5: Subject Area

Subject Area	Total	% (N=366)
Business, Management and Accounting	191	52.19
Computer Science	146	39.89
Social Sciences	105	28.69
Economics, Econometrics and Finance	58	15.85
Engineering	40	10.93
Decision Sciences	30	8.20
Mathematics	23	6.28
Environmental Science	12	3.28
Energy	9	2.46

Arts and Humanities	7	1.91
Psychology	5	1.37
Agricultural and Biological Sciences	4	1.09
Earth and Planetary Sciences	3	0.82
Physics and Astronomy	3	0.82
Biochemistry, Genetics and Molecular Biology	2	0.55
Chemical Engineering	1	0.27
Materials Science	1	0.27
Medicine	1	0.27
Pharmacology, Toxicology and Pharmaceutics	1	0.27

*The publications are classified based on the source title categorization. Some of the source titles were classified in more than one subject area

Most Active Source Title

Table 6 presents highlighted the most active source title that has five or more publications on social media and SMEs. As shown in Table 6, the Lecture Notes in Computer Science Including Subseries is among the top journals that contribute to publications on social media and SMEs.

Table 6: Most Active Source Title (more than four documents)

Journals	Total	% (N=366)
Lecture Notes in Computer Science Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics	11	3.01
Industrial Marketing Management	8	2.19
Journal of Small Business and Enterprise Development	6	1.64
Information Systems Management	5	1.37
ACM International Conference Proceeding Series	4	1.09
Advanced Science Letters	4	1.09
International Journal of Business Information Systems	4	1.09
Journal of Business and Industrial Marketing	4	1.09
Proceedings of the 6th European Conference on Social Media ECSM 2019	4	1.09
Sustainability Switzerland	4	1.09
Technological Forecasting and Social Change	4	1.09

Keywords Analysis

VOSviewer was utilised to perform the author keyword analysis. Network visualization of the author keywords as presented in Figure 2 in which color, node, and size of the font and thickness of connecting lines were used to present the relationship with other keywords. The analysis shows that there are six clusters in social media

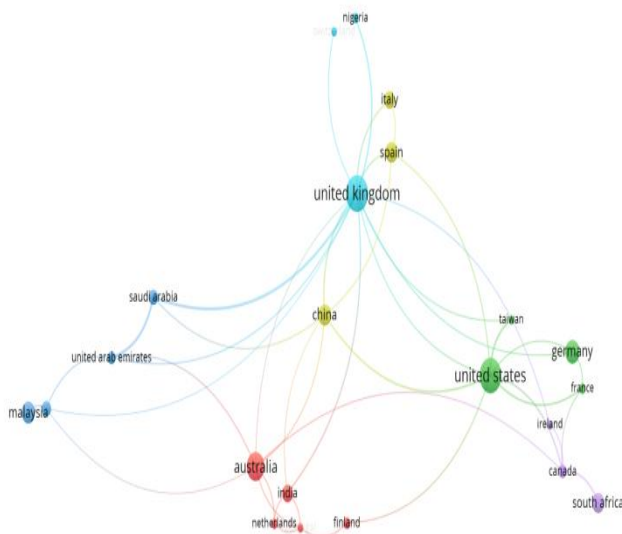


Figure 3: Network visualization map of the co-authorship

This study also analyzed the collaboration between authors in different countries in publishing social media and SMEs articles. Fractional counting method for countries that have more than five citations was used in the analysis. The strength of the relationship between author in different countries is indicated by the color, circle size, font size and connecting lines thickness as displayed in Figure 3. Based on the analysis, it seems that authors from the United Kingdom and the United States are the most active countries where the authors collaborated. The result also highlighted that authors from the United States are actively collaborating with their counterparts from Germany and France, while in Australia, the collaboration is with authors from India, Netherlands, and Finland. Meanwhile, Malaysian authors are collaborating with colleagues from the United Arab Emirates and Saudi Arabia.

Number of Author - Authorship

The number of authors per publication is presented in Table 9. The analysis shows that the biggest number of authors per article is 8, while 62 articles are written by a single author. The results also show that in the area of social media and SMEs, 62% of the articles are written by 2 or 3 authors that work together.

Table 9: Number of Author(s) per Document

Author Count	Total	% (N=366)
1	62	16.94
2	110	30.05
3	119	32.51
4	46	12.57
5	18	4.92
6	9	2.46
7	1	0.27
8	1	0.27
Total	366	100.00

Text Analysis

The title and abstract from the documents gathered were analysed using the binary counting method via VOSviewer software. Binary counting method is a method where the occurrence of a noun in an article is calculated based on a specific number of times (van Eck & Waltman, 2013). The visualization of the noun occurrences based on the title and abstract is displayed in Figure 4. The strength of the occurrences is indicated by the size of the nodes while the strength of the relationship is displayed by the thickness of the lines between nodes. Related words are grouped together to show their relationship. The results of the analysis show that social media, communication, process, application, and environment are closely related while performance, capability, evidence and empirical research often occur together. Four different colors were generated from the analysis representing four important groups from the analysis.

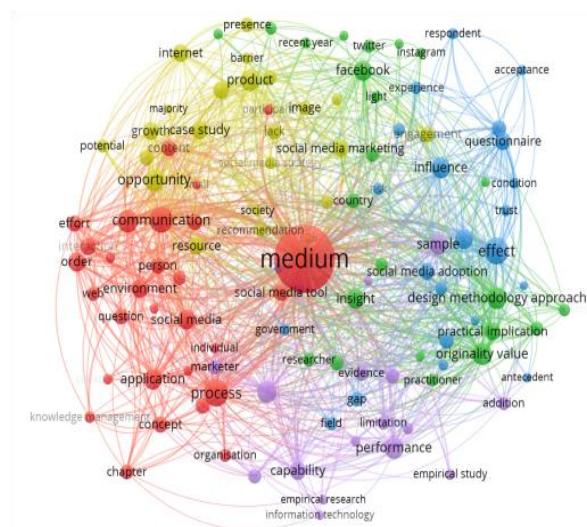


Figure 4: VOSviewer visualization of a term co-occurrence network based on title and abstract fields (Binary Counting)

Most Influential Institutions

Table 10 presented the most influential institutions in publishing social media and SMEs articles. RMIT University, together with Prince Sultan and the Swinburne University of Technology, is the most active institution with six publications, each followed by the University of the Aegean, University of Malaya and Covenant University with several publications amounted to 5 per institutions. The remaining institutions are shown in Table 10. All have four publications each of which is not far behind from the leaders.

Table 10: Most influential institutions with a minimum of four publications

Country	Total	% (N=366)
RMIT University	6	1.64
Prince Sultan University	6	1.64
Swinburne University of Technology	6	1.64
University of the Aegean	5	1.37
University of Malaya	5	1.37
Covenant University	5	1.37
University of South Africa	4	1.09
University of Science and Technology of China	4	1.09
Monash University	4	1.09
Brunel University London	4	1.09
Universität Regensburg	4	1.09
American University of Sharjah	4	1.09
Abu Dhabi University	4	1.09
Cardiff Metropolitan University	4	1.09
SuanSunandha Rajabhat University	4	1.09

Citation Analysis

The citation metrics data from 2009 – 2020 generated from Harzing’s Publish and Perish software are

summarised in Table 11. Altogether, there are 366 papers with 2700 citations averaging at 270 citations per year of social media and SMEs publications. Each paper is cited 7.38 times, and the total of h-index and the g-index is at 23 and 43 for all the publications.

Table 11: Citations Metrics

Metrics	Data
Publication years	2009-2020
Citation years	10
Papers	366
Citations	2700
Citations/year	270.00
Citations/paper	7.38
Authors/paper	2.67
Hirsch h-index	23
Egghe g-index	43

The top 10 most cited articles in social media are presented in Table 12 below. The article that discussed the usage, barriers, and measurement of social media marketing in SMEs is the most cited article to date with 318 total citations altogether.

Table 12: Top 20 highly cited documents

No	Authors	Year	Title	Source	TC	CY	CA
1	N. Michaelidou, N.T. Siamagka, G. Christodoulides	(2011)	Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands	Industrial Marketing Management	318	39.75	106
2	B. Zeng, R. Gerritsen	(2014)	What do we know about social media in tourism? A review	Tourism Management Perspectives	202	40.4	101
3	S. Okazaki, C.R. Taylor	(2013)	Social media and international advertising: Theoretical challenges and future directions	International Marketing Review	114	19	57
4	P. Rutsaert, A. Regan, Z. Pieniak, A. McConnon, A. Moss, P. Wall, W. Verbeke	(2013)	The use of social media in food risk and benefit communication	Trends in Food Science and Technology	86	14.33	12
5	L. Razmerita, K. Kirchner, T. Nabeth	(2014)	Social Media in Organizations: Leveraging Personal and Collective Knowledge Processes	Journal of Organizational Computing and Electronic Commerce	71	14.2	24
6	J. Knoll	(2016)	Advertising in social media: A review of empirical evidence	International Journal of Advertising	64	21.33	64
7	E. Constantinides, M.C.Z. Stagno	(2011)	Potential of the social media as instruments of higher education marketing: A segmentation study	Journal of Marketing for Higher Education	62	7.75	31
8	M. Durkin, P.	(2013)	Exploring social media adoption	Journal of Small	61	10.17	20

	McGowan, N. McKeown		in small to medium-sized enterprises in Ireland	Business and Enterprise Development			
9	L. Zhou, T. Wang	(2014)	Social media: A new vehicle for city marketing in china	Cities	56	11.2	28
10	C. Meske, S. Stieglitz	(2013)	Adoption and use of social media in small and medium-sized enterprises	6th Working Conference on Practice-Driven Research on Enterprise Transformation, PRET 2013	55	9.17	28

TC – Total Citations, CY – Citations/Year, CA – Citations/Author

The analysis, as displayed in Figure 5, also reveals the visualization map of the citation according to countries where the minimum number of citations per document is 5. The node size represents the number of citations per countries while the lines connecting the nodes represent the collaboration that existed between the authors in each country. Countries that often work together are grouped in the same color as displayed in Figure 5. The United Kingdom is the biggest country that is cited for the work in social media and SMEs while the United States, Germany and Malaysia are also getting a good number of citations.

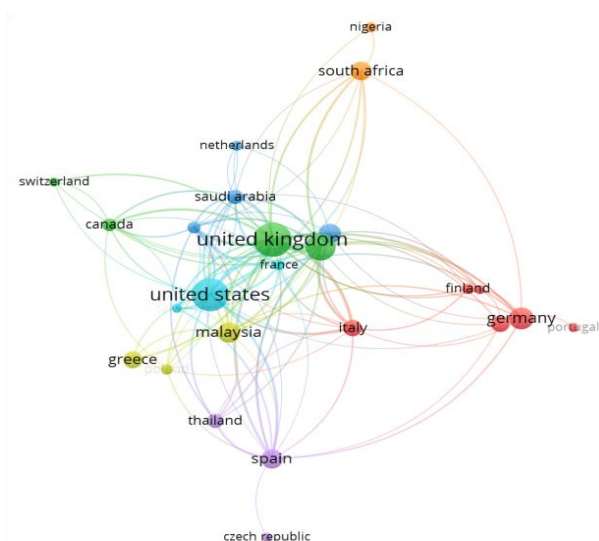


Figure 5: Network visualization map of the citation by countries

Minimum number of documents of an author = 5
Minimum number of citations of an author = 5

4. Discussion and Conclusion

The trend of research on social media and SMEs is analysed in this research by utilizing a bibliometric analysis method. Using bibliometric analysis, the productivity of research and publications in a specific area can be evaluated. Bibliometric analysis can also guide managers and policymakers in making important

decisions before embarking in the specific domain as the results of the bibliometric analysis can reveal the performance and impact of the analyzed research area (Ellegaard & Wallin, 2015). Moreover, findings from the bibliometric analysis can help academicians in producing relevant and up to date research as the results will highlight the important area that needs to be addressed (Ellegaard & Wallin, 2015).

Building on the importance of social media to business organizations, particularly SMEs, this research focused on the social media and SMEs publication data gathered from the Scopus database.

The significant growth in the number of publications in this area can be seen from 2001. This study also reveals that per year, more authors from different countries are working together suggesting that the importance of social media spread across different regions. The results highlighted that English is the primary language that is used in writing 98% of the research papers and more than half of it (63.39%) is published in academic journals. The remaining papers were published in conference proceedings (19.40%), books (10.66%), and book series (6.56%). The results also indicate that social media research publications spread significantly in many disciplines such as computer science, social sciences, economics, finance, and even engineering and not only focus just on business, management and accounting. The findings suggested that social media is an important subject that needs further investigation and more importantly, collaboration in many other different contexts. The publication impact can be evaluated based on the citation metric, as displayed in Table 11. Based on the 19 years of publications (2001 – 2019), 366 papers have been produced by researchers around the world with a total of 2700 citations. On average, the topic generated 270 citations and each paper is cited 7.38 times.

Despite the insightful results gathered from the bibliometric analysis, the quality of the results can still be improved in future research. The first aspect is in the context of keyword use in the search process. In this study, the results are gathered based on the keyword “social media” and “SME” which is based on the title of the paper. As social media is a general term, some social media researchers may use a more specific keyword such as “Facebook,” “Twitter,” or “social network.” The use of more keywords related to social media can contribute to

more comprehensive search results, thus improved the quality of the findings. Furthermore, no search query is 100% perfect in capturing all scholarly works in this area. Hence, negative results are expected.

While the Scopus database is one of the biggest databases that index academic literature in many types of disciplines, other databases can be included in the search query such as Web of Science and Google Scholar. If the search query is performed on all available academic databases, the results can be richer and more insights can be gathered. However, despite the limitations on the search database, this study at least presents a fascinating trend on social media and SMEs research up to 2020. This study also contributes to the extension of the body of knowledge in social media literature by utilizing the bibliometric approach.

References

- [1] Abed, S. S., Dwivedi, Y. K. & Williams, M. D. (2015). Social media as a bridge to e-commerce adoption in SMEs: A systematic literature review. *The Marketing Review*, 15(1), 39–57.
- [2] Ahmi, A., & Mohamad, R. (2019). Bibliometric Analysis of Global Scientific Literature on Web Accessibility. *International Journal of Recent Technology and Engineering*, 7(6), 250–258.
- [3] Ahmi, A., & Nasir, M. H. M. (2019). Examining the Trend of the Research on eXtensible Business Reporting Language (XBRL): A Bibliometric. *International Journal of Innovation, Creativity and Change*, 5(2), 1145.
- [4] Ainin, S., Parveen, F., Moghavvemi, S., Jaafar, N. I., & Mohd Shuib, N. L. (2015). Factors influencing the use of social media by SMEs and its performance outcomes. *Industrial Management & Data Systems*, 115(3), 570–588.
- [5] Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-mediated Communication*, 13(1), 210–230.
- [6] Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic Journal of Communication*, 23(1), 46–65.
- [7] Constantinides, E., & Zinck Stagno, M. C. (2011). Potential of the social media as instruments of higher education marketing: A segmentation study. *Journal of Marketing for Higher Education*, 21(1), 7–24.
- [8] Culnan, M. J., McHugh, P. J., & Zubillaga, J. I. (2010). How large US companies can use Twitter and other social media to gain business value. *MIS Quarterly Executive*, 9(4).
- [9] Durkin, M., McGowan, P., & McKeown, N. (2013). Exploring social media adoption in small to medium-sized enterprises in Ireland. *Journal of Small Business and Enterprise Development*, 20(4), 716–734.
- [10] Ellegaard, O., & Wallin, J. A. (2015). The bibliometric analysis of scholarly production: How great is the impact? *Scientometrics*, 105(3), 1809–1831.
- [11] Kamarul Faizal Hashim, Ammar Rashid, S. A. (2018). Social Media for Teaching and Learning within Higher Education Institution: A Bibliometric Analysis of the Literature (2008–2018). *International Journal of Interactive Mobile Technologies (IJIM)*, 12(7), 4–19.
- [12] Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68.
- [13] Knoll, J. (2016). Advertising in social media: a review of empirical evidence. *International Journal of Advertising*, 35(2), 266–300.
- [14] Meijer, A. J., & Torenvlied, R. (2016). Social media and the new organization of government communications: An empirical analysis of Twitter usage by the Dutch police. *The American Review of Public Administration*, 46(2), 143–161.
- [15] Meske, C., & Stieglitz, S. (2013). Adoption and use of social media in small and medium-sized enterprises. *Working Conference on Practice-Driven Research on Enterprise Transformation*, 61–75. Springer.
- [16] Michaelidou, N., Siamagka, N. T., & Christodoulides, G. (2011). Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands. *Industrial Marketing Management*, 40(7), 1153–1159.
- [17] O'Reilly, T. (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications & Strategies*, (1), 17.
- [18] Okazaki, S., & Taylor, C. R. (2013). Social media and international advertising: theoretical challenges and future directions. *International Marketing Review*, 30(1), 56–71.
- [19] Razmerita, L., Kirchner, K., & Nabeth, T. (2014). Social media in organizations: leveraging personal and collective knowledge processes. *Journal of Organizational Computing and Electronic Commerce*, 24(1), 74–93.
- [20] Rutsaert, P., Regan, Á., Pieniak, Z., McConnon, Á., Moss, A., Wall, P., & Verbeke, W. (2013). The use of social media in food risk and benefit communication. *Trends in Food Science & Technology*, 30(1), 84–91.
- [21] Statista. (2019). Number of social network users in Malaysia from 2017 to 2023. Retrieved from Statista website: <https://www.statista.com/statistics/489233/number-of-social-network-users-in-malaysia/>
- [22] van Eck, N. J., & Waltman, L. (2013). VOSviewer manual. *Leiden: Univeriteit Leiden*, 1(1).

- [23] Wang, W. Y. C., Pauleen, D. J., & Zhang, T. (2016). How social media applications affect B2B communication and improve business performance in SMEs. *Industrial Marketing Management*, 54, 4–14.
- [24] Weber, M. S., Fulk, J., & Monge, P. (2016). The emergence and evolution of social networking sites as an organizational form. *Management Communication Quarterly*, 30(3), 305–332.
- [25] Xi Y. Leung, Jie Sun, B. B. (2017). Bibliometrics of social media research: A co-citation and co-word analysis. *International Journal of Hospitality Management*, 66, 35–45.
- [26] Zeng, B., & Gerritsen, R. (2014). What do we know about social media in tourism? A review. *Tourism Management Perspectives*, 10, 27–36.
- [27] Zhang, X., Chen, H., Wang, W., & Ordóñez de Pablos, P. (2016). What is the role of IT in innovation? A bibliometric analysis of research development in IT innovation. *Behaviour & Information Technology*, 35(12), 1130–1143.
- [28] Zhou, L., & Wang, T. (2014). Social media: A new vehicle for city marketing in China. *Cities*, 37, 27–32.
- [29] Zyoud, S. H., Sweileh, W. M., Awang, R., & Al-Jabi, S. W. (2018). Global trends in research related to social media in psychology: mapping and bibliometric analysis. *International Journal of Mental Health Systems*, 12(1), 4. <https://doi.org/10.1186/s13033-018-0182-6>