

The impact of social media in business growth and performance: A scientometrics analysis

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ABSTRACT

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The purpose of this research is to investigate the status and the evolution of the scientific studies on the applications of social media in the business. The present research is an applied scientific method based on quantitative approach by using library method and scientometrics indicators. With the use of bibliometric library of R software, scientific products in the field of social media applications in business from 2005 to the end of January 2019, the study overviews trends and achievements of this field. The results show that from the beginning of 2005 through January 2019, 2682 articles have been indexed in Web of Science in the field of social media and business; however, since 2009, scientific productions in this topic have grown rapidly and in 2017, there was a substantial increase in the number of studies. The findings also show that the United States with 1269 published articles and the Business Horizons Magazine with the publication of 73 articles, pioneered in the publications of this topic. Analyzing the content of the works produced in the applications of the social media and businesses can help us better understand the growth trend in this area.

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1. Introduction

The concept of Social Media (SM) has been on top of the agenda for many business executives. Decision makers, as well as consultants, try to identify ways in which firms can make profitable use of applications such as Wikipedia, YouTube, Facebook, Twitter, etc. (Kaplan & Haenlein 2010). Traditionally, consumers used the Internet to simply expend content: they read it, they watched it, and they used it to buy products and services. This represents the social media phenomenon, which can now significantly impact a firm's reputation, sales, and even survival. Yet, many executives eschew or ignore this form of media because they do not understand what it is, the various forms it can take, and how to engage with it and how to learn (Kietzmann et al., 2011). Today social media platforms such as Twitter and Facebook enable the creation of virtual customer environments (VCEs) where online communities of interest form around specific firms, brands, or products. (Culnan et al., 2010).

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The emergence of Internet-based SM has made it possible for anyone to communicate with literally thousands of people about particular products and the companies that provide them. Thus, the impact of consumer-to-consumer communications has been widely magnified in the marketplace. SM is a hybrid element of the promotion mix because in a traditional sense it helps firms talk to their customers, while in a nontraditional sense it only assists customers to talk directly to one another. It is often outside managers' direct control to monitor the content and the media-based conversations happening between consumers. This is in contrast to the conventional marketing communications paradigm whereby a high degree of control exists. Thus, managers ought to learn to form consumer discussions in a way that is complied with the organization's mission and performance objectives. Methods by which this can be achieved are delineated herein (Mangold & Faulds, 2009). According to Berthon et al. (2012), to help managers learn more about this new dispensation five axioms are needed to follow: (1) SMs always follow a technology, culture, and government of a particular country or context; (2) local events seldom are local; (3) global events most likely to be (re)interpreted locally; (4) creative consumers' actions and creations depend on technology, culture, and government; and (5) technology is historically dependent. Social media explores the cultural landscape of open source branding, and identifies marketing strategies directed at the hunt for consumer engagement on the People's Web. These strategies exhibit a paradox to reach coveted resonance and the brand has to relinquish control (Fournier & Avery, 2011). All this has helped companies make significant changes on their business strategies. Benefits from the implementation of SM sites increase in awareness and inquiries and enhanced relationships with customers. An increase in the number of new customers has enhanced the ability to reach customers on a global scale and co-promotion of local businesses which enhance the image of small businesses in the region (Jones et al., 2015). With the introduction of Web 2.0, consumers have been more interested in expressing and sharing their ideas on web regarding day-to-day activities and global issues as well. Evolution of SM has also attributed to such activities by giving us a transparent platform to share their views around the world. These electronic Word of Mouth (eWOM) statements expressed on the web are much prevalent in business and service industry to help consumers share their point of view (Ravi & Ravi, 2015). Thus, a large amount of user-generated content becomes available on SM sites. To increase competitive advantage and effectively reach the competitive environment of businesses, most firms require to carefully monitor and analyze both the customer-generated content on their own social media sites and the textual information on their competitors' SM sites (He et al., 2013). The objective is to find the necessary information from this complex data and implement it for trend analysis and prediction. Visual analytics method applied by the toolkit can be used in other domains involving SM data, such as sales prediction and advertisement planning (Lu et al., 2014). Customer feedback which appear in social media, however, are basically unstructured, therefore, a large data set is required for meaningful analysis. Although determining consumers' value structures and behaviors is useful for developing different markets, the unstructured and volume-heavy nature of consumer data bans effective and economical extraction of such information (Jang et al., 2013). The social networking application is not merely associated with customer relationships then relying on the industry, the objectives, etc., and managers have to choose their own techniques. Finally, some have attempted to standardize the implementation of SM networks for businesses by building some necessary tools (Colomo-Palacios et al., 2014).

2. About Bibliometrix R package

Bibliometrics is the application of quantitative analysis and statistics to publications such as journal articles and their accompanying citation counts. Quantitative evaluation of publication and citation data is now used in almost all science fields to evaluate growth, maturity, leading authors, conceptual and intellectual maps and the trend of a scientific community. Bibliometrics is also used in research performance evaluation (Aria & Cuccurullo, 2017).

3. Annual scientific production

With the fast development of social networks, scientific articles on this topic have also grown dramatically. Here we will review 2682 scientific articles to examine the dimensions of this topic.

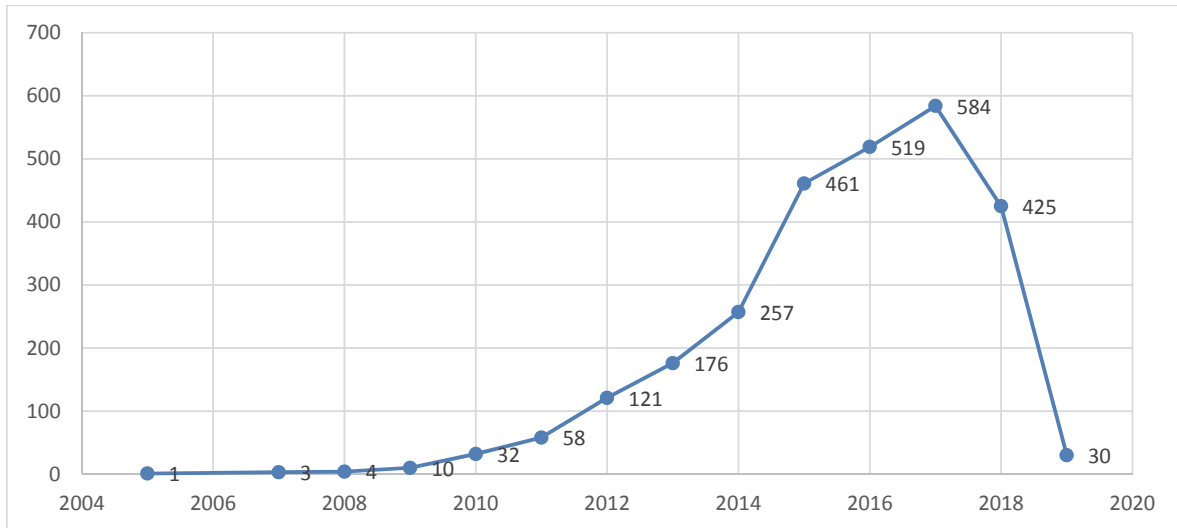


Fig. 1. The Web of Science publications on the analysis of social media and business from 2005 to 2019

Fig. 1 shows the growth trend of scientific content in the field of social media and business. It shows that in 2014 we witnessed a mutation.

4. Source Dynamics

Fig. 2 shows that the Business Horizons Magazine has a significant contribution to the publication of this topic and, compared to other journals, is highly specialized in the subject of business.

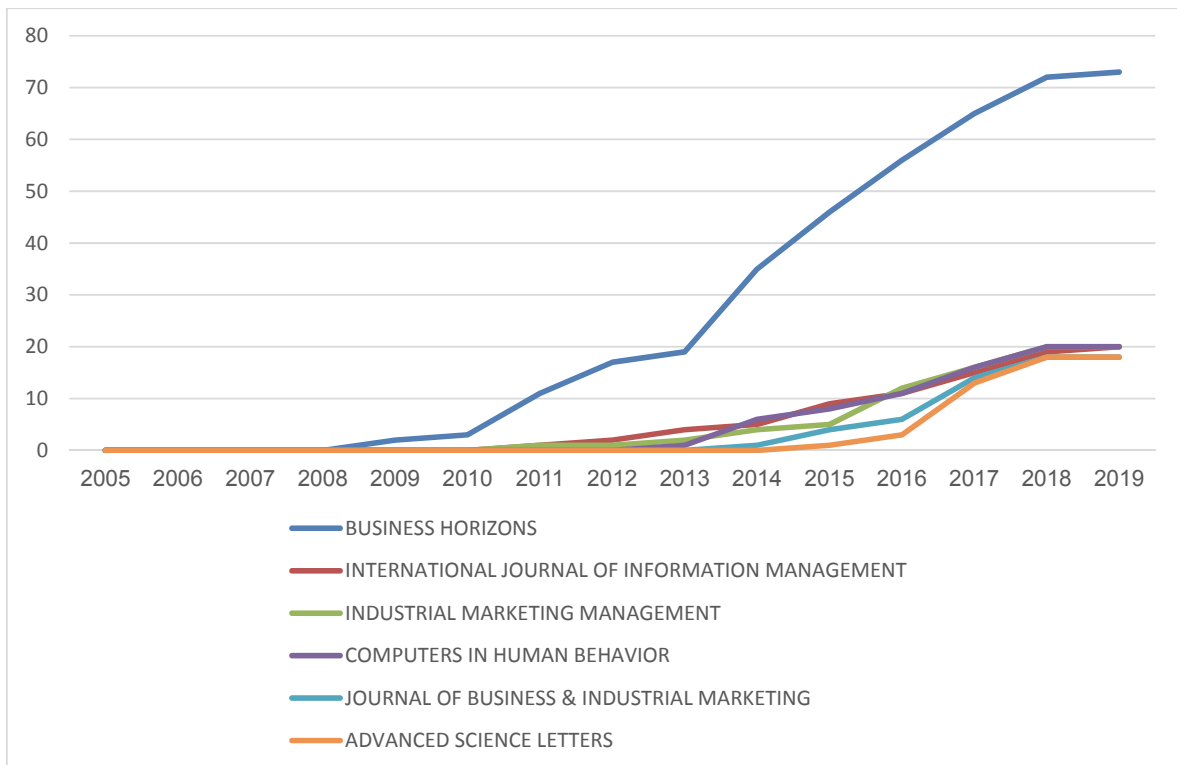


Fig. 2. Trend of content related to the subject at different scientific journals

5. Country Scientific Production

One of the other important areas of research is the study of the scientific production of different countries. Studies show that researchers from the United States (1269 articles), UK (364 article), China (309 articles) and the Australia (265) have played a major role in scientific production of social media and business.

Table 1

Country scientific production in studies with social media in business

region	Freq	region	Freq
USA	1269	GREECE	47
UK	364	BRAZIL	45
CHINA	309	THAILAND	42
AUSTRALIA	265	DENMARK	39
INDIA	254	NORWAY	39
SPAIN	179	POLAND	38
GERMANY	139	SOUTH AFRICA	37
CANADA	132	CZECH REPUBLIC	34
MALAYSIA	125	SWITZERLAND	34
ITALY	120	SAUDI ARABIA	33
PORTUGAL	98	PAKISTAN	32
TAIWAN	98	SINGAPORE	31
ROMANIA	96	JAPAN	27
FINLAND	95	RUSSIA	26
SOUTH KOREA	95	AUSTRIA	25
INDONESIA	93	SLOVAKIA	25
FRANCE	82	BELGIUM	24
TURKEY	75	IRELAND	24
NETHERLANDS	59	IRAN	23
SWEDEN	59	NEW ZEALAND	22

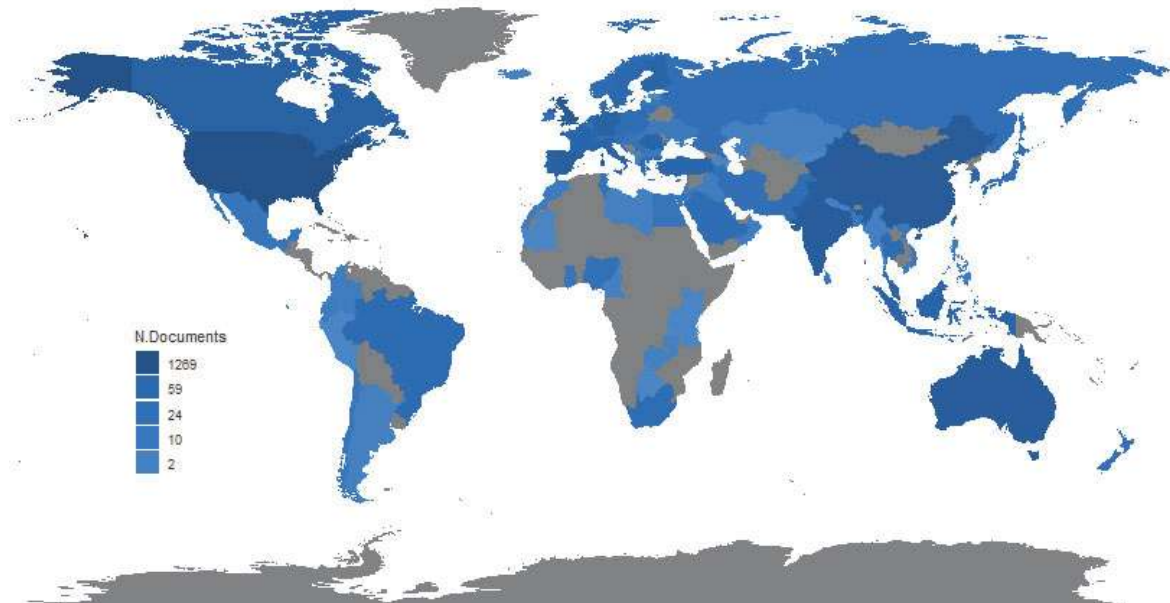


Fig. 3. Country scientific production on map

6. Corresponding Author's Country

Corresponding Author's Country shows how the authors have been collaborating in one country, or different countries in subject.

SCP: Single Country Publication

MCP: Multi Country Publication

Fig. 4 illustrates the collaboration of the authors from different countries on this topic.

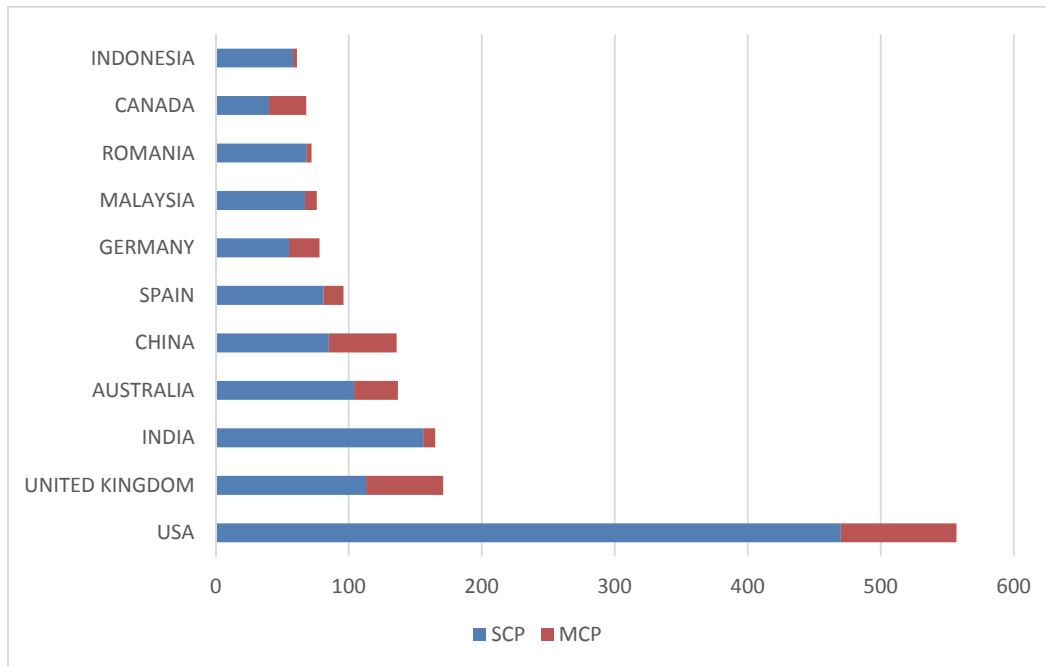


Fig. 4. Corresponding Author's Country

7. Most Cited Countries

The study of the countries influencing the production of science shows that the United States is the leader in this field, followed by France, Canada and the United Kingdom. The results show that leading countries cover more than 70% of the total number of references.

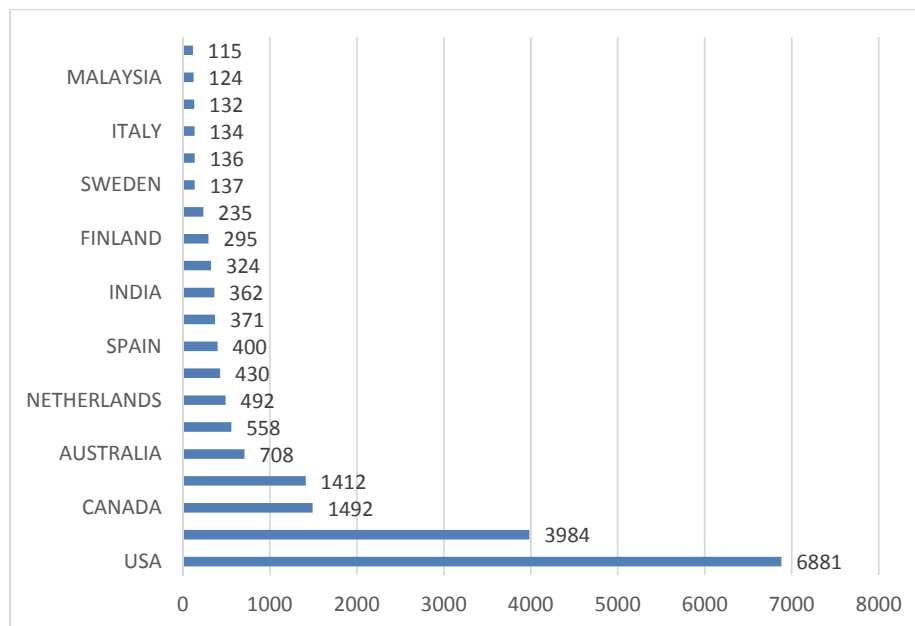


Fig. 5. Most Cited Countries

8. The most common keywords and Temporal Analysis

Table 2 demonstrates some of the most popular keywords used in studies associated with Social media and business. As we can observe from the results of Table 2, “social media”, “impact” and “word-of-mouth” are three keywords known in the literature. Fig. 6 shows the most important words used over times.

Table 2

The most popular keywords used in studies with social media in business.

Words	Occurrences	Words	Occurrences
social media	261	antecedents	27
impact	171	business intelligence	26
word-of-mouth	156	competitive advantage	26
performance	140	customer satisfaction	26
model	123	strategies	26
management	122	acceptance	24
information	112	challenges	24
internet	107	firm	24
perspective	104	hospitality	24
networks	93	smes	24
innovation	92	user acceptance	24
behavior	90	power	23
business	87	user-generated content	22
information-technology	87	brand community	21
media	84	consumer	21
framework	79	design	21
Facebook	76	e-commerce	21
communication	75	firms	21
technology	75	technologies	21
trust	72	work	21
adoption	67	capabilities	20
twitter	64	co-creation	20
online	59	classification	19
systems	53	commitment	19
communities	52	future	19
web	51	knowledge management	19
knowledge	49	models	19
organizations	49	community	18
engagement	46	context	18
quality	45	dynamic capabilities	18
satisfaction	43	e-business	18
consumers	39	environments	18
sales	38	governance	18
big data	35	intelligence	18
determinants	35	intention	18
industry	34	networking sites	18
strategy	34	relationship quality	18
loyalty	33	service quality	18
participation	33	services	18
sites	32	support	18
brand	31	companies	17
information-systems	31	consumption	17
online communities	31	education	17
reviews	30	experience	17
usage	30	orientation	17
firm performance	29	customer relationship management	16
web 2.0	29	higher-education	16
analytics	28	identification	16
sentiment analysis	28	identity	16
tourism	28	network	16

As shown in Fig. 6, “social media”, “business”, “data”, “marketing”, “management”, “analysis”, “communication”, “content” and “customer” are the research hotspots with a high frequency of the keywords used in different project.



Fig. 6. The frequency of the keywords used in different paper

9. Conceptual structure, Co-occurrence network

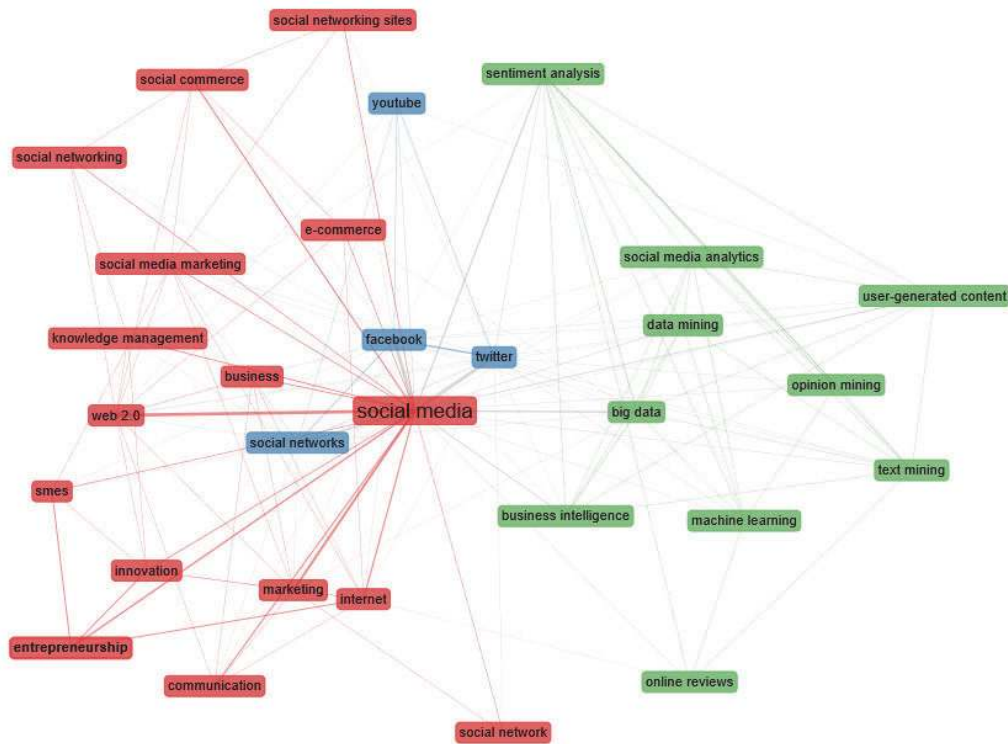


Fig. 7. Co-occurrence network (2005-2019)

A keywords co-occurrence network (KCN) focuses on understanding the knowledge components and knowledge structure of a scientific/technical field by examining the links between the keywords in the literature. Fig. 7 focuses on the analysis methods based on KCNs, which have been used in theoretical and empirical studies to explore research topics and their relationships in selecting scientific fields. If keywords are grouped into the same cluster, they are more likely to reflect identical topics. Each cluster has different number of subject keyword. As can be seen from the Fig.7, the social networking platform, data and its use, and social media applications are the main clusters of this research.

10. Conceptual structure map, Correspondence analysis

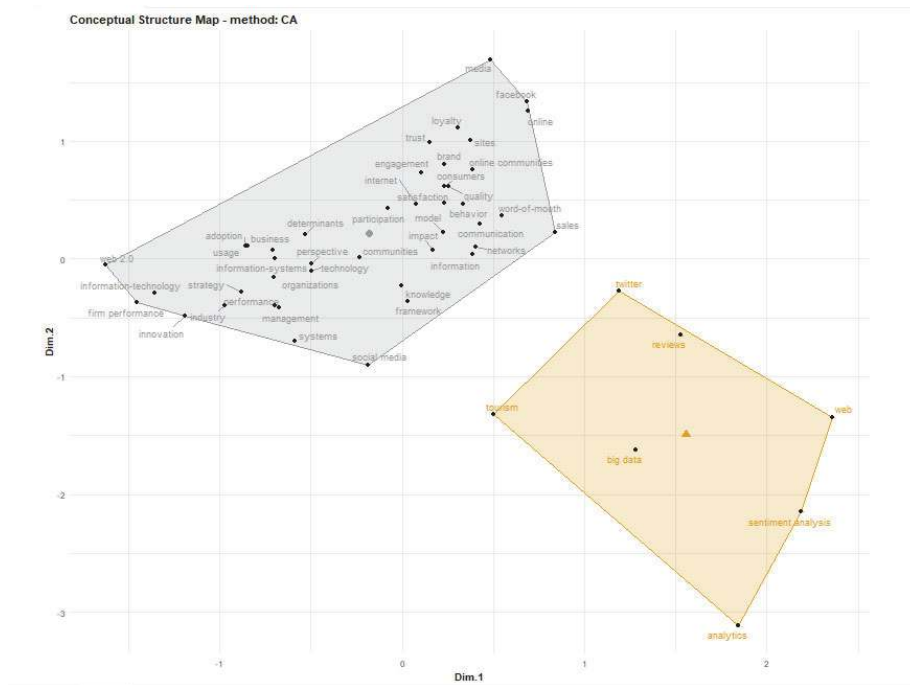


Fig. 8. Co-occurrence network (2005-2019)

Co-word analysis aims at representing the conceptual structure of a framework using co-occurrence of words. The words can be replaced by authors' keywords, keywords plus, and terms extracted from titles or abstracts. The conceptual structure function produces three kinds of mapping as listed: conceptual structure map, factorial map of the documents with the highest contributes and factorial map of the most cited documents. Conceptual structure map is presented in Fig. 8. Left Cluster has the most keywords, which means the attention of the researchers to the subject matter of the study.

11. Thematic map

Co-word analysis draws clusters of the keywords and they are considered as themes. In the strategic diagram presented in Fig. 9, the vertical axis measures the density – i.e., the strength of the internal links within a cluster represented by a theme –, and the horizontal vertical axis the centrality – i.e. the strength of the links between the theme and other themes in the map. Thematic map is a very intuitive plot and we can analyze themes according to the quadrant in which they are placed:

- (Q1) upper-right quadrant: motor-themes
- (Q2) lower-right quadrant: basic themes
- (Q3) lower-left quadrant: emerging or disappearing themes;
- (Q4) upper-left quadrant: very specialized/ niche themes.

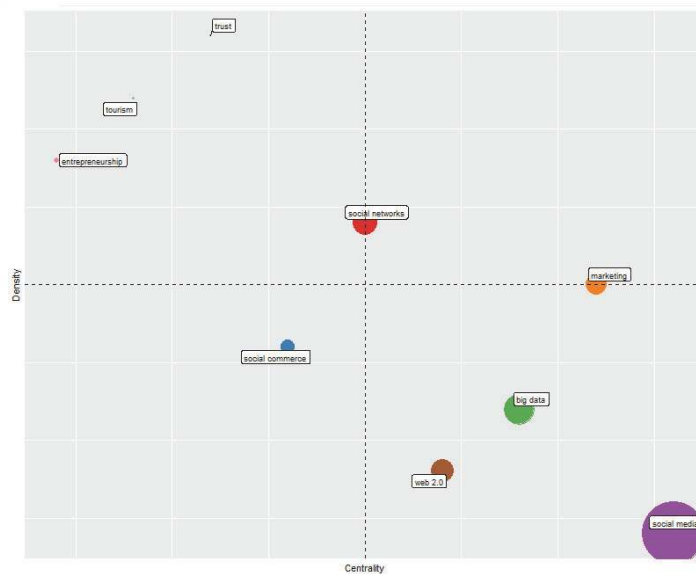


Fig.9. Thematic Map

Hence, the themes with the highest internal coherence and closest relationship to other themes appear in the second quadrant (the lower right part of the graph). In the third and fourth, the following topics can be found: social commerce, social networking, entrepreneurship and tourism. Themes in this quadrant are important for a research field but are not developed. This quadrant group's transversal and general, basic themes.

12. Social structure, Contributions of countries

As shown in Fig. 10, the United States is the leader in science production in this topic.

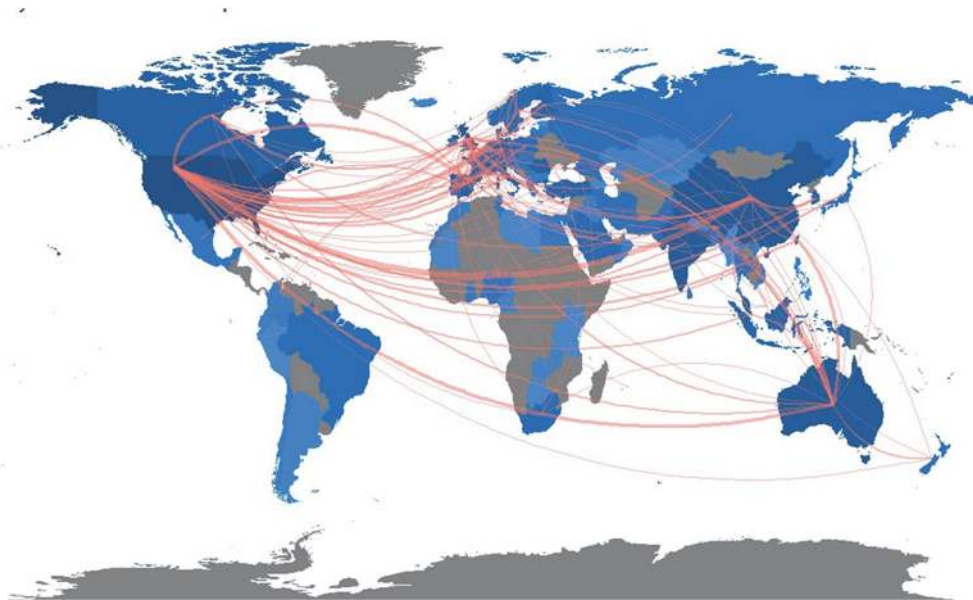


Fig. 10. Country collaboration

Table 3
Country collaboration in studies about social media in business

From	To	Frequency
USA	CHINA	47
CANADA	USA	22
USA	UNITED KINGDOM	18
UNITED KINGDOM	ITALY	15
USA	AUSTRALIA	15
AUSTRALIA	CHINA	14
FRANCE	USA	14
FRANCE	UNITED KINGDOM	12
UNITED KINGDOM	CHINA	12
USA	GERMANY	12
USA	TAIWAN	12
USA	FINLAND	11
AUSTRALIA	UNITED KINGDOM	10
USA	NETHERLANDS	10
USA	ITALY	8
USA	KOREA	8
CANADA	AUSTRALIA	7
CANADA	CHINA	7
CANADA	UNITED KINGDOM	7
NETHERLANDS	UNITED KINGDOM	7
UNITED KINGDOM	GERMANY	7
USA	INDIA	7
AUSTRALIA	GERMANY	6
DENMARK	NORWAY	6
FRANCE	AUSTRALIA	6
CHINA	KOREA	5
FRANCE	GERMANY	5
ITALY	SPAIN	5
SPAIN	PORTUGAL	5
UNITED KINGDOM	SPAIN	5
USA	BELGIUM	5
USA	NORWAY	5
USA	SINGAPORE	5
USA	SPAIN	5
USA	SWITZERLAND	5
AUSTRALIA	DENMARK	4
AUSTRALIA	NEW ZEALAND	4
AUSTRALIA	SINGAPORE	4

13. Highly cited papers

Although articles' citation is considered as an indicator of the impact of papers, the impact of the article cannot be evaluated solely by considering the first influential articles. More people have not yet seen newer articles that are truly influential and, therefore, they have not shown their influence. Table 4 shows the summary of the most cited articles. As we can observe from the results of Table 3, the study by Kaplan and Haenlein (2010) has received the highest citations. This paper analyzed the challenges and opportunities of Social Media. They provided a classification of Social Media, which group applications currently subsumed under the generalized term into more specific categories by different characteristics such as collaborative projects, blogs, content communities, social networking sites, virtual game worlds, and virtual social worlds. Finally, they presented 10 pieces of advice for companies, which decide to utilize Social Media. The second highly cited work belongs to Kietzmann et al. (2011), which explains that the SM now significantly influences on a firm's reputation, sales, and even survival. Yet, many business partners disregard this form of media since they have not realized the value of this market, the different forms it can take, and how to engage with it and learn. They provided a framework which

defines SM by using seven functional building blocks including identity, conversations, sharing, presence, relationships, reputation, and groups. They also suggested on how firms should develop different strategies for monitoring, understanding, and responding to various social media activities. The third highly cited work is associated with Mangold and Faulds (2009) where the focus was on communication in social networks. In addition, they emphasized that social networks for companies have two parts, the first is the activities that are accomplished by the company, and the second is the ones that users share about the firms. Therefore, managers have to learn to direct consumer interests to the mission and objectives of the organizations. Then they introduced methods for this purpose.

Table 4

The summary of the most cited articles

Paper	Total Citations	TC per Year
KAPLAN AM, 2010, BUS HORIZONS	3332	370.2
KIETZMANN JH, 2011, BUS HORIZONS	977	122.1
MANGOLD WG, 2009, BUS HORIZONS	804	80.4
HANNA R, 2011, BUS HORIZONS	379	47.4
SASHI CM, 2012, MANAGE DECIS	235	33.6
BERTHON PR, 2012, BUS HORIZONS	228	32.6
VERHOEF PC, 2015, J RETAILING	214	53.5
CULNAN MJ, 2010, MIS Q EXEC	211	23.4
FOURNIER S, 2011, BUS HORIZONS	204	25.5
HE W, 2013, INT J INFORM MANAGE	199	33.2
MICHAELIDOU N, 2011, IND MARKET MANAG	192	24.0
ARAL S, 2013, INFORM SYST RES	181	30.2
MUNAR AM, 2014, TOURISM MANAGE	171	34.2
RAVI K, 2015, KNOWL-BASED SYST	165	41.3
LIANG TP, 2011, INT J ELECTRON COMM	164	20.5
KIM W, 2010, INFORM SYST	155	17.2
KAVANAUGH AL, 2012, GOV INFORM Q	146	20.9
MALTHOUSE EC, 2013, J INTERACT MARK	143	23.8
LUO XM, 2013, INFORM SYST RES	129	21.5
WEINBERG BD, 2011, BUS HORIZONS	126	15.8
LI LN, 2013, CARTOGR GEOGR INF SC	119	19.8
TRAINOR KJ, 2014, J BUS RES	116	23.2
DU SL, 2012, J BUS ETHICS	115	16.4
KAPLAN AM, 2011, BUS HORIZONS	115	14.4
SOTIRIADIS MD, 2013, ELECTRON COMMER RES	113	18.8
RISHIKA R, 2013, INFORM SYST RES	108	18.0
KAPLAN AM, 2012, BUS HORIZONS	106	15.1
KAPLAN AM, 2011, BUS HORIZONS-a	103	12.9
DAVENPORT TH, 2012, MIT SLOAN MANAGE REV	98	14.0
RAPP A, 2013, J ACAD MARKET SCI	96	16.0
XIANG Z, 2015, J RETAIL CONSUM SERV	94	23.5
YU Y, 2013, DECIS SUPPORT SYST	93	15.5
KWOK L, 2013, CORNELL HOSP Q	92	15.3
SCOTT SV, 2012, ACCOUNT ORG SOC	91	13.0
KAPLAN AM, 2009, BUS HORIZONS	89	8.9
XIE KL, 2014, INT J HOSP MANAG	87	17.4
ZHOU LN, 2013, ELECTRON COMMER R A	87	14.5
LARISCY RW, 2009, PUBLIC RELAT REV	87	8.7
PANTELIDIS IS, 2010, CORNELL HOSP Q	84	9.3
SAXTON GD, 2013, INFORM SYST MANAGE	83	13.8
FERRARA E, 2014, KNOWL-BASED SYST	81	16.2
CHAE B, 2015, INT J PROD ECON	77	19.3
LIN KY, 2011, CYBERPSYCH BEH SOC N	77	9.6
CHENG MM, 2016, INT J HOSP MANAG	76	25.3
HAJLI MN, 2014, TECHNOL FORECAST SOC	75	15.0
PIOTROWICZ W, 2014, INT J ELECTRON COMM	73	14.6
ABRAHAMS AS, 2012, DECIS SUPPORT SYST	72	10.3
POYRY E, 2013, ELECTRON COMMER R A	71	11.8
SERAJ M, 2012, J INTERACT MARK	70	10.0

PARENT M, 2011, BUS HORIZONS	70	8.8
CHUA AYK, 2013, J KNOWL MANAG	67	11.2
LIU C, 2014, IEEE T PARALL DISTR	65	13.0
OESTREICHER-SINGER G, 2013, MIS QUART	64	10.7
YANG CW, 2017, INT J DIGIT EARTH	63	31.5
HAJLI MN, 2014, INT J MARKET RES	60	12.0
MCCARTHY J, 2014, INTERNET RES	59	11.8
SHEN J, 2012, J ELECTRON COMMER RE	56	8.0
MARINE-ROIG E, 2015, J DESTIN MARK MANAGE	54	13.5
MURALIDHARAN S, 2011, PUBLIC RELAT REV	53	6.6
KUMAR V, 2015, J MARKETING	52	13.0
MELIAN-GONZALEZ S, 2013, CORNELL HOSP Q	52	8.7
BLAZEVIC V, 2013, J SERV MANAGE	52	8.7
BRAVO-MARQUEZ F, 2014, KNOWL-BASED SYST	50	10.0
LIU SY, 2014, SIGMOD'14: PROCEEDINGS OF THE 2014 ACM SIGMOD IN-	49	9.8
BECHMANN A, 2013, NEW MEDIA SOC	49	8.2
NGAI EWT, 2015, IND MANAGE DATA SYST	48	12.0
BATRINCA B, 2015, AI SOC	47	11.8
WU YC, 2014, IEEE T VIS COMPUT GR	47	9.4
PENTINA I, 2013, COMPUT HUM BEHAV	47	7.8
SPARKS BA, 2016, TOURISM MANAGE	46	15.3
BEREZINA K, 2016, J HOSP MARKET MANAG	46	15.3
JUSSILA JJ, 2014, COMPUT HUM BEHAV	46	9.2
VERHOEF PC, 2013, EUR MANAG J	46	7.7
PALACIOS-MARQUES D, 2015, MANAGE DECIS	45	11.3
GRIFFIS HM, 2014, J MED INTERNET RES	45	9.0
HU YJ, 2015, COMPUT ENVIRON URBAN	44	11.0
KLAUS P, 2013, J SERV MARK	44	7.3
MUNAR AM, 2012, SCAND J HOSP TOUR	44	6.3
ZHANG MM, 2011, ELECTRON MARK	44	5.5
TURCOTTE J, 2015, J COMPUT-MEDIAT COMM	43	10.8
HE W, 2015, INFORM MANAGE-AMSTER	42	10.5
SWANI K, 2014, IND MARKET MANAG	41	8.2
PANIAGUA J, 2014, BUS HORIZONS	40	8.0
OESTREICHER-SINGER G, 2012, MIS QUART	40	5.7
CAIN J, 2011, AM J PHARM EDUC	40	5.0
BRAOJOS-GOMEZ J, 2015, INT J INFORM MANAGE	39	9.8
NGO-YE TL, 2014, DECIS SUPPORT SYST	39	7.8
VERMA R, 2012, CORNELL HOSP Q	39	5.6
GOSSLING S, 2017, J SUSTAIN TOUR	38	19.0
HAJLI N, 2015, TECHNOL FORECAST SOC	38	9.5
EVANS C, 2014, BRIT J EDUC TECHNOL	38	7.6
WHEELER CK, 2011, AESTHET SURG J	38	4.8
WEINBERG BD, 2013, J INTERACT MARK	37	6.2
MILLER AR, 2013, INFORM SYST RES	37	6.2
JANSSEN M, 2014, SOC SCI COMPUT REV	36	7.2
WAMBA SF, 2014, J ORGAN END USER COM	36	7.2
GAL-TZUR A, 2014, TRANSPORT POLICY	36	7.2
KOO C, 2011, INT J INFORM MANAGE	36	4.5
KAPLAN AM, 2016, BUS HORIZONS	35	11.7
GAMBOA AM, 2014, BUS HORIZONS	35	7.0
TIAGO MTPMB, 2014, BUS HORIZONS	34	6.8
COLLINS C, 2013, J PUBLIC TRANSPORT	34	5.7
WANG H, 2016, INFORM SCIENCES	33	11.0
KAUN A, 2014, NEW MEDIA SOC	33	6.6
CURTY RG, 2013, ELECTRON COMMER R A	33	5.5
POWERS T, 2012, J ADVERTISING RES	33	4.7
FELIX R, 2017, J BUS RES	32	16.0
BHARATI P, 2015, J KNOWL MANAG	32	8.0
ZHAO XY, 2015, INT J CONTEMP HOSP M	32	8.0
SUN GD, 2014, IEEE T VIS COMPUT GR	32	6.4
WHELAN G, 2013, J BUS ETHICS	32	5.3
ROBLEK V, 2013, KYBERNETES	32	5.3

HARRIS J, 2012, MIS Q EXEC	32	4.6
GREGOIRE Y, 2015, BUS HORIZONS	31	7.8
POELL T, 2014, INFORM COMMUN SOC	30	6.0
SIGALA M, 2014, CORNELL HOSP Q	30	6.0
WEI YJ, 2011, J ELECTRON COMMER RE	30	3.8
PADILLA-MELENDEZ A, 2013, INT J INFORM MANAGE	29	4.8
MANGOLD WG, 2012, BUS HORIZONS	29	4.1
HEWETT K, 2016, J MARKETING	28	9.3
SCHOLZ J, 2016, BUS HORIZONS	28	9.3
WANG LZ, 2015, IEEE CLOUD COMPUT	28	7.0
ALADWANI AM, 2014, COMPUT HUM BEHAV	28	5.6
YOON S, 2013, BMC PUBLIC HEALTH	28	4.7
OH I, 2012, KOREA OBS	28	4.0
KIRTIS AK, 2011, PROCD SOC BEHV	28	3.5
MORAN E, 2010, J ADVERTISING RES	28	3.1
GUESALAGA R, 2016, IND MARKET MANAG	27	9.0
KOSTKOVA P, 2016, FRONT PUBLIC HEALTH	27	9.0
GRUBER DA, 2015, BUS HORIZONS	27	6.8
LIN CY, 2012, P IEEE	27	3.9
LEE JL, 2014, J MED INTERNET RES	26	5.2
NILSSON E, 2014, J SERV MARK	26	5.2
BRZOWSKI MJ, 2009, GROUP 2009 PROCEEDINGS	26	2.6
KILLIAN G, 2015, BUS HORIZONS	25	6.3
REILLY AH, 2014, BUS HORIZONS	25	5.0
KENT ML, 2014, PUBLIC RELAT REV	25	5.0
CARIM L, 2013, PUBLIC RELAT REV	25	4.2
MESKE C, 2013, LECT NOTES BUS INF P	25	4.2
SALDANHA TJV, 2012, J ORG COMP ELECT COM	25	3.6
DONG JQ, 2015, J STRATEGIC INF SYST	24	6.0
HUANG Z, 2015, TECHNOL FORECAST SOC	24	6.0
ZHAO ZZ, 2015, BUS HORIZONS	24	6.0
HARRIGAN P, 2015, AUSTRALAS MARK J	24	6.0
SIGALA M, 2017, CURR ISSUES TOUR	23	11.5
NSOESIE EO, 2014, PREV MED	23	4.6
SARAVANAKUMAR M, 2012, LIFE SCI J	23	3.3
HILL S, 2011, INT J ELECTRON COMM	23	2.9
WHITAKER C, 2017, J MED INTERNET RES	22	11.0
LEE I, 2017, BUS HORIZONS	22	11.0
BUSALIM AH, 2016, INT J INFORM MANAGE	22	7.3
KNOLL J, 2016, INT J ADVERT	22	7.3
AININ S, 2015, IND MANAGE DATA SYST	22	5.5
KOHLI C, 2015, BUS HORIZONS	22	5.5
MCCANN M, 2015, J SMALL BUS ENTERP D	22	5.5
LIBURD JJ, 2013, J HOSP LEIS SPORT TO	22	3.7
USHER WT, 2012, AUST J PRIM HEALTH	22	3.1
SOTO-ACOSTA P, 2017, J TECHNOL TRANSFER	21	10.5
ABBASI A, 2016, J ASSOC INF SYST	21	7.0
RINGELHAN S, 2015, PLOS ONE	21	5.3
ZHU YQ, 2015, BUS HORIZONS	21	5.3
MILES SJ, 2014, BUS HORIZONS	21	4.2
BENSON V, 2014, COMPUT HUM BEHAV	21	4.2
DAHNIL MI, 2014, PROCD SOC BEHV	21	4.2
PERRIGOT R, 2012, J SMALL BUS MANAGE	21	3.0
ASHURST C, 2012, INT J INFORM MANAGE	21	3.0
KAPLAN AM, 2012, BUS HORIZONS-a	21	3.0
SINGARAJU SP, 2016, IND MARKET MANAG	20	6.7
XIE KL, 2016, J TRAVEL TOUR MARK	20	6.7
ZADEH AH, 2014, DECIS SUPPORT SYST	20	4.0
BLAZEVIC V, 2014, J INTERACT MARK	20	4.0
KORSCHUN D, 2013, J BUS RES	20	3.3

14. Conclusion

This study has been in the field of analyzing and illustrating the scientific products of the world for 14 Years in the fields of social media and business. The increasing growth of studies began in 2014. However, in 2018, its steep growth stalled. We are likely to consider this because of the review of subcategories and the exclusion of the word business from the keywords. A large variety of keywords, and of course low density, points to the broadness of the subject. Therefore, it should be dealt with in more depth. This issue can be further explored from two dimensions: Social networking platform and companies by industry. Country collaboration map shows that the United States and China are pioneer in this topic.

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