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Anantdeep Kaur Maan, Atul Shiva

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Mapping social media in the theoretical field of behavioural finance: a bibliographic analysis

Anantdeep Kaur Maan* and Atul Shiva

USB,
Chandigarh University,
Chandigarh, 160014, India
Email: anantdeepmaan@gmail.com
Email: atul.e8105@cumail.in
*Corresponding author

Abstract: In the last two decades, the field of social media research has grown tremendously, and the interest of academic scholars has been engendered in this field. Research on the influence of social media in the context of behavioural finance is being mapped out in this study. The research emphasises the contemporary fields of social media and behavioural finance by implementing bibliometric tools to identify substantial and significant omissions from the literature. The study retrieved 295 studies from the Web of Science database using keyword exploration. The analytic approaches have been implemented here in the detection of prominent journals, plentiful writers, nations, and associations, thereby adding to the body of knowledge on social media and behavioural finance. Tools such as bibliographic coupling have been applied to better understand the conceptual and intellectual framework. Finally, the directions of literature review study will serve as a guide for future research.

Keywords: behaviour finance; social media; Web of Science; VOSviewer; bibliometric analysis.

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Biographical notes: Anantdeep Kaur Maan is a research scholar at the Chandigarh University, Gharuan. She has more than ten years of teaching and research experience. Her area of research is behavioural finance.

Atul Shiva is presently working as an Assistant Professor of Management in the University School of Business, Chandigarh University, Mohali. He completed his PhD in the domain of Behavioural Finance from the Punjabi University, Patiala. His area of specialisation is behavioural finance and business analytics and has teaching experience of 17 years. He is a certified trainer in SmartPLS Software from the Northern Institute of Technology, Technical University of Hamburg (TUHH), Germany.

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1 Introduction

Behavioural finance is extensively considered as a valuable theory for understanding and describing moods and cognitive inaccuracies that influence investment decision-making (Waweru et al., 2014). It examines investor behaviour and its psychological influence on individual decision making (Ritter, 2003). Investor's decisions are based on the information that they have observed from environment and even they set their perceptions for that information which may influence their decisions (Sha and Ismail, 2020). In complex situations, decision-making involves selecting the best possible alternative from a list of alternatives (Hirschey and Nofsinger, 2008). Behavioural finance shed light on the psychological elements of stock market booms and market collisions (Gao and Schmidt, 2005). Individual investors are susceptible to a variety of behavioural biases. Cognitive biases and emotional biases are the two prejudices for decision-making of individual investor (Pompian, 2006). Cognitive bias is a mental bias, while the emotional bias is linked to feelings and sentiments. Investor either in a profitable position or in a loss position it is due to cognitive biases.

However, it was believed that in 1970 stock movement was followed by a random walk (Kassouf, 1968; Fama, 1970) Stock trends were the result of data theft (Leuthold, 1972), and historical data was not used to forecast future stock values (Solnik, 1973) This was according to Fama's (1970) efficient market hypothesis. However, this hypothesis had been met with criticism (Basu, 1983) as many questions remain unanswered by these traditional theories. Such as why investors do not always base their decisions on rationality and intentions, and why feelings and sentiments lead to making decisions that are not rational and that vary from person to person (Baker and Ricciardi, 2014). These questions are answered in behaviour finance which involve in it prospect theory, herd behaviour theory, theory of biases, etc. that provide ground to practical problems of human behaviour.

Social media is becoming an increasingly essential strategic tool for businesses (Gomez Vasquez and Soto Velez, 2011). Social networking sites are a hub for people to share information and gather online. It functions as a source for customer data and a method of disseminating information to develop a marketplace existence (Hsu, 2012). The rise, integration, and use of social media into routine have made it increasingly prominent as a field of study. Customers are gradually turning to fellow other customer's actions while picking between items, as this specific trend has been accelerated by the growth of social media (Chen et al., 2014). However, one area that remains unexplored is how social media material influences other real-world, time-dependent occurrences. Nowadays, most individuals communicate using Facebook, WhatsApp, Twitter, and other social media platforms. Companies use social media platforms to be connected and co-operate with their stakeholders, associates, customers, and investors. It may also improve communications between them and remove the other psychological barriers between them. Social media records are used to forecast everyday trends because of their prominence in external communications (Siikanen et al., 2018). Social media has a significant impact on business and stock market.

Though number of research has conducted on social media in different context, but very few studies have been done specifically on social media and behavioural finance. So, in this paper previous research on social media and behavioural finance have been

explored and the current study will serve as a comprehensive road map for new scholars, as it presents a unique collection of future research prospects.

This research focuses on the literature on behavioural finance and social media in a variety of ways. To begin with, this study is the first comprehensive examination of the existing literature on this vital subject. Second, the bibliometric analysis is based on scant research conducted in the context of social media and financial literature. Bibliometric analysis is required to gain a holistic view of both domains and to comprehend how they have evolved separately and collectively.

To begin with, introduction of both vital topics in Section 1. The research approach is described in detail in Section 2. A comprehensive examination of the existing literature is described in Section 3, a bibliometric analysis based on research conducted in the context of social media and financial literature is also done in this section. Data and methods used in the study are presented in Section 4 along with the results of bibliometric investigations. Section 5 defines the findings of the study. The research's potential flaw is discussed in Section 6. Conclusions along with summarises of the findings of the study are discussed in Section 7. Identifies key takeaways and makes a few recommendations for further research. Section 8 of the paper wraps everything up.

2 Research methodology

The organised procedural approach (Tranfield et al., 2003) is used in the current study to ensure purposeful, reproducible, and thorough coverage of the literature. Structured reviews aid in the mapping of the current state of the art as well as the identification of possible research gaps in a specific sector of research (Cai and Lo, 2020). This study data has been taken from the Web of Science database. Web of Science has recently become the most widely used, reputable and verified database for scientific papers. Numerous bibliometric studies have authenticated Web of Science database to use for research analysis. For the bibliometric analysis to be performed, VOSviewer 1.6.17 is used in the current study. The bibliometric approach is straightforward and reproducible (Van Eck and Waltman, 2010). The VOSviewer makes it simple to undertake bibliometric mapping and network analysis (Aria et al., 2020). The analysis has been conducted at three levels:

- co-citation of authors and references
- co-occurrence of keywords
- bibliographic coupling of authors, country, and sources (journals).

Research published on social media and behavioural finance from 2012 and 2021 was gathered from the Web of Science. Till date, there was not much bibliometric research conducted to investigate the role of social media within the field of financial behaviour. Hence, the purpose of this research is to locate the theoretical underpinnings, key researchers, and periodicals in the field of behavioural finance and social media. In this study, we will examine the structure of social media usage, and the study will propose possible avenues for future research in the fields of social media and behavioural finance.

3 Literature review

3.1 Background on social media and behaviour finance

Behavioural finance reveals that investors' decisions are affected by psychological factors like emotions, sentiments, and their state of mind when they think to invest (Lucey and Dowling, 2005). Psychological factors have influence on the decision-making of an investor (Blajer-Gołe Rbiewska et al., 2018). The eminence of finance in behavioural terms was embroidered in the 1990s when econometric models were substituted with financial models established on psychological factors (Shiller, 2003). Behavioural finance theories have explained the perspectives of societal and emotional factors on investors' behaviour. Whereas efficient market theory describes that investor always behave rationally. In the last decade, vast developments in the field of technology have altogether altered the dimensions of the ways and means of conducting business. In the present scenario, where major financial transactions in the economy revolve around stock markets, the major area of concern for corporates and investors is the instant availability of information for effective decision making while incorporating investment decisions (Lee and Andrade, 2011). Investors can get information and expert judgments via social media platforms, mostly from Twitter or Facebook. The information available in the media shapes investor behaviour and has an impact on stock prices (Nofsinger, 2005; Baker and Wurgler, 2006). Sabherwal (2011) examines how virtual discussion influences stock values and recommends that business managers should examine the messages related to stock boards. Even institutional investor structure their groups in such a way that investment information is shared with associated parties. Social networking sites have recently gotten a lot of consideration as a fundamental and pervasive structure (Błachnio et al., 2013; Wilson et al., 2012). Effortless availability of information and cost-effective technology of microblogging sites have been established in the form of Facebook, Twitter, etc. for virtual communication of people throughout the world (Dhir et al., 2013; Williams et al., 2013). Several studies have investigated the potential of information taken though social media platforms, for the prediction of outcomes in emerging blogs and forums (Kalampokis et al., 2013). Social media platforms such as Facebook, Twitter, and LinkedIn have evolved to shape people's contact and are enormously influential in a wide range of settings, from entrepreneurship to political concerns to venture capital (Greenwood and Gopal, 2015). However, based on total active users, Facebook is believed to be the most used (Teo, 2016). In recent years, social networks have steadily replaced conventional media. As its growing popularity among customers making, it more successful marketing tool (Bruhn et al., 2012). A rising number of users have embraced the rise of social media tools such as posting text messages, images, and online videos (Duggan et al., 2015).

3.2 Bibliometric research in social media and behavioural finance

In the past, various bibliometric research in the field of behavioural finance has been conducted. But this research is distinct from the past studies on various aspects that purely validate the intensions of the present study. Costa et al. (2017) conducted a bibliographic analysis on behavioural finance and behavioural biases, and thereafter (Costa et al., 2019) bibliometric analysis on behavioural finance along with behavioural

economics was done. A new study (da Gama Silva et al., 2019) has used a bibliometric evaluation on behavioural finance, though it is limited only to Brazilian journals. In Ángeles López-Cabarcos et al. (2019), an examination of investor sentiment within the context of behavioural finance. In contrast, Paule-Vianez et al. (2020) conducted bibliometric analysis on data from 1987 to 2017 on behavioural accounting in research. In social media, bibliometric analyses have evaluated relevant publications and their relationship with behaviour finance. For example, Ángeles López-Cabarcos et al. (2019) has given a theoretical structure of investor sentiment that has applied a bibliometric analysis on leading journals, references, authors, or keywords as there is a boost in publications on investor sentiments. Chen et al. (2019) used Web of Science data to detect specific events in social media from 2009 to 2017 and conducted an analytical investigation on the resulting data. Another bibliometric study performed by Zyoud and Sweileh (2018) aimed at social media in the field of psychology. So, most of the previous bibliometric research is based on analysis of behavioural finance, or its association with behavioural economics, behavioural biases, or behavioural finance with investor sentiments, etc. But current research is focused on the association of social media with behavioural finance. In this paper, bibliometric analysis has been performed with the VOSviewer that supports different visualisations (Roig-Tierno et al., 2017), like the network visualisation, the overlay visualisation, and the density visualisation (Ángeles López-Cabarcos et al., 2019).

4 Data and method

4.1 Data selection and search criteria

The final search criteria are summarised below:

- Search date: 25 January 2022.
- Search engine: Web of Science.
- Search term or keyword: (social media or social media usage or online social media platform) AND (behavioural finance or finance behaviour).
- Document type: Include only ‘articles’, ‘proceeding papers’, ‘early access’, and ‘review articles’.
- Subject area: Include ‘business’, ‘economics’, ‘management’, ‘business finance’, ‘social sciences interdisciplinary’, and ‘humanities multidisciplinary’.
- Language screening: ‘English’ only.

In this research, the Web of Science database is used to retrieve various studies on social media along with behavioural finance as these databases have the greatest number of articles published in JCR-indexed journals. Additionally, this database provides comprehensive and conveniently accessible information (Cancino et al., 2017). Documents were extracted from the Web of Science on 25 January 2022. Boolean operators (‘OR’, ‘AND’) have been used to find out specific items (social media OR social media usage OR online social media platform AND behavioural finance OR finance behaviour) (Costa et al., 2017). 873 articles were extracted by this search.

Further, under the document types, 'articles', 'proceeding papers', 'early access', and 'review articles' were considered. After that, the subject areas 'business', 'economics', 'management', 'business finance', 'social sciences interdisciplinary', and 'humanities multidisciplinary' are included, and the rest of the other areas were excluded from the study. After screening 307 documents were extracted. Under the language screening the documents published in English only are considered for this study. So finally, 295 papers were appeared that were taken for further bibliometric analysis.

Figure 1 shows the publications of the last ten years, from 2010 to 2021, on behavioural finance and social media. Data has been extracted from the Web of Science database. Most of the researches in this field were conducted in 2020 and 2021 respectively. After 2015, there has been constant increase in the number of publications in this area.

Figure 1 Record of publications of last ten years (see online version for colours)

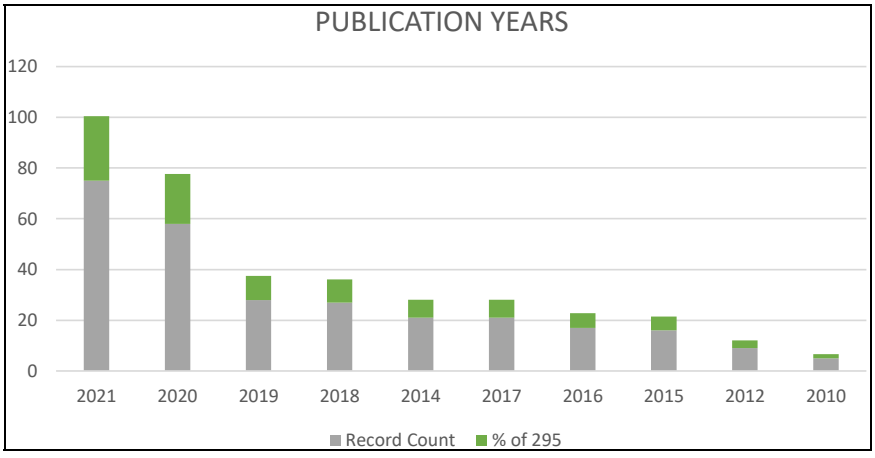


Figure 2 Publication title in social media and behavioural finance (see online version for colours)

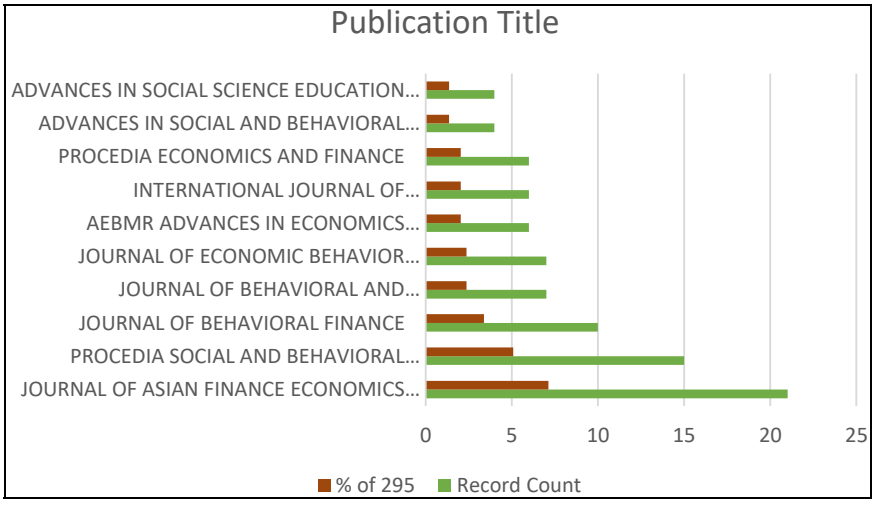


Figure 2 presents the publication titles in the fields of social media and behavioural finance. *Journal of Asian Finance, Economics, and Business* has record count of 21 publications (7.11%) of the 295 published documents. Followed by *Procedia Social and Behavioral Sciences* and *Journal of Behavioral Finance* with respectively record counts of 15 and 10 with 5.085% and 3.09%. The journals *Journal of Behavioral and Experimental Finance* and *Journal of Economic Behavior and Organization* both have record count 7 with 2.373%.

4.2 Method

Microsoft Excel and VOSviewer 1.6.17.1.exe were applied in the current study. Co-citation analysis, bibliographic coupling along with co-occurrence were employed to get analysis. Assessment of citation patterns and graphs in documents is known as citation analysis. Bibliographic coupling examines the connection between citing texts, whereas co-occurrence analysis identifies the scientific field's vital information (Su and Lee, 2010). Bibliographic coupling is the linking of two reference documents when referring to a shared work. A significant number of common citations between two publications indicates a strong connection. Bibliographic coupling denotes topic matter similarity. For identifying the most valuable authors and papers published on social media and behavioural finance, the most suitable technique 'co-citation' has applied (Boyack and Klavans, 2010). The quantity of similar citations between two journals is measured by co-citation, whereas the number of common backward citations is measured by bibliographic coupling (Kov-Acs et al., 2015). With co-citation and bibliographic coupling, one may see the research area's past and present. We used author keyword co-occurrence to pinpoint the investigated field's core (Su and Lee, 2010). Therefore, key themes related to social media give a summary. Author, publication, journal, and keyword associations are visualised using the VOS technique. The VOSviewer is suitable for this type of study.

5 Results of bibliometric analysis

5.1 Co-citation analysis

Hair (2011) has the most cited article 'PLS-SEM: indeed, a silver bullet', with 47 citations and a TLS of 78, according to the results. The paper provides insights into PLS-SEMs by bringing together contributions from marketing, statistics, and management. Using PLSSEM in empirical research is the author's primary goal.

Icek's (1991) 'Theory of planned behavior' is the second most cited article with 45 citations and a TLS of 84. This study demonstrates that the concept of planned behaviour is an effective tool for dealing with the intricacies of human conduct.

Fama et al. (1970) is the third most cited article, with 44 citations and 109 TLS. 'Efficient capital markets: a review of theory and empirical work'. This author is known for his market efficiency theories. Behavioural finance challenges the concept that financial markets function rationally. According to Fama's findings, abnormalities in long range returns are likely to vanish while the measuring form is altered, which criticise behavioural finance. Fama concludes that markets' efficiency should not be discounted.

The fourth and fifth most cited documents both have the same number of citations (35). 'Consumer brand engagement in social media: conceptualisation, scale development and validation' by Hollebeek et al. (2014) define the role of social media in marketing context. Author has developed and validated a conceptual scale for consumer-based interaction on certain social media platforms. Tetlock (2007) with his document 'Giving content to investor sentiment: the role of media in the stock market' has define effects of investor sentiments generated through news media on the stock prices. The news media's content can also be used to forecast stock market behaviour. In this investigation, principal component analysis (PCA) and simple vector autoregressive (VAR) models were used. Author has used the concept of new media sentiments in the context of behaviour finance.

Table 1 Top 10 most cited articles, authors with citation

Sr. no.	*Article*	*Author*	*Field of study*	*Citations*	*Link strength*
1	The theory of planned behaviour	Icek (1991)	*Journal Organizational Behaviour and Human Decision Processes*	45	84
2	Investor sentiments and cross section of stock return	Baker and Wurgler (2006)	*The Journal of Finance*	33	113
3	The effect of attentions and new on the buying behaviour of individual and institutional investor	Barber and Odean (2008)	*The Review of Financial Studies*	27	96
4	In search of attention	Da et al. (2011)	*The Journal of Finance*	32	86
5	Efficient capital markets: a review of theory and empirical work author	Fama (1970)	*The Journal of Finance*	44	109
6	Evaluating structural equation models with unobservable variables and measurement error	Fornell and Larcker (1981)	*Journal of Marketing Research*	25	63
7	PLS-SEM: indeed, a silver bullet	Hair (2011)	*Journal of Marketing Theory and Practice*	47	78
8	Consumer brand engagement in social media: conceptualisation, scale development and validation	Hollebeek et al. (2014)	*Journal of Interactive Marketing*	35	35
9	Efficient markets theory to behavioral finance	Shiller (2003)	*Journal of Economic Perspectives*	27	92
10	Giving content to investor sentiment: the role of media in the stock market	Tetlock (2007)	*The Journal of Finance*	35	98

The sixth most frequently cited article is 'Investor sentiments and the cross section of stock returns', 33 citations by Baker and Wurgler (2006). This article is based on sentiments formed by cross-sectional stock returns. Investor mood has a significant

impact on a broad spectrum of stock returns. According to this research, an investor's emotional wave has a bigger influence on assets with difficult-to-arbitrage prices. The study is related to behaviour finance.

This article, 'In search of attention', with 32 citations is the seventh most frequently referenced in Da et al. (2011). In this article, the search volume index (SVI) has been used as a novel tool for measuring investor interest in real-time. There is a decision-making model that prioritises attention-grabbing options when faced with several possibilities. Individual investors like to acquire attention-grabbing stocks, such as news, stocks with high abnormal trading volume, and stocks with spectacular one-day returns most frequently.

Shiler (2003) and Barber and Odean (2008) have the same number of citations, i.e., 27. Shiller (2003) in his essay 'efficient markets theory to behavioural finance', explains several arguments in favour of moving away from traditional finance and toward the behavioural finance. Barber and Odean (2008) in his article 'The effect of attentions and new on the buying behaviour of individual and institutional investor' has explain the influence of attentions on the investor behaviour. Last Fornell and Larcker's (1981) paper, 'Evaluating structural equation models with unobservable variables and measurement error', has 25 citations and 63 total link strength.

From this analysis, it has been cleared that the most cited article from the extracted data is of behavioural finance as the research on behaviour finance has been grown in previous years. In the most cited article fewer studies have been found on traditional finance as academic scholars are focusing more on behavioural finance. Secondly, the most cited studies on social media are in the field of marketing instead of finance as the previous studies are focusing social media as a tool of marketing that help firms to make better connection with customers. But not much research has found on the usage of social media tools or social media platforms in the context of finance and investment and how it affects the decision making.

5.2 Bibliographic coupling of sources

When two sources (journals) have a greater quantity of references, their bibliographic coupling increases. In this study, sources with at least four publications were considered. However, the number of citations for a publication was limited to five. Ten sources were identified using these parameters. The VOSviewer calculates the total link strength for each source. The final graph's sources are constructed on total link strength (Van Eck and Waltman, 2010). According to the source, two clusters have formed. The first cluster contains six sources, each of which is represented by a red cluster in the graph and exhibits a high correlation between them. *International Journal of Finance*, *Journal of Banking and Finance*, *Journal of Behavioral and Experimental Finance*, *Journal of Behavior Finance*, *Journal of Economic Behavior*, and the *Review of Finance Studies* are included in red cluster. Under cluster two, four items are highlighted in green, including an *International Journal of Entertainment*, *Asian Finance and Economics Journal*, *Journal of Business Research*, and *Journal of Electronic Commerce Research*.

Table 2 explicates the credentials of the sources along with citations. In the last column of Table 2, the average number of citations per document has been considered. Here a thought-provoking thing has happened. As we can get, the maximum number of documents produced by the *Journal of Asian Finance, Economics, and Business* is 21. But these 21 documents have only 65 citations, and the average number of citations per

document is 3.095. Conversely, if the evaluation is done with the other source, i.e., the *Journal of Banking & Finance*, that has issued only four documents and has 149 citations, and the average citation per document is 37.25, that is considerably greater than the *Journal of Asian Finance, Economics, and Business*, which has published a higher number of documents. Likewise, average citations with the documents can provide advantageous evidence about the quality of the specific source.

Figure 3 Bibliographic coupling map (see online version for colours)

Table 2 Bibliographic coupling of document with average citation per document

Sr. no.	*Source*	*Documents*	*Citations*	*Average citation per document*
1	*International Journal of Entrepreneurial Behavior & Research*	6	16	2.66
2	*International Journal of Finance & Economics*	4	12	3
3	*Journal of Asian Finance Economics and Business*	21	65	3.095
4	*Journal of Banking & Finance*	4	149	37.25
5	*Journal of Behavioral and Experimental Finance*	7	64	9.14
6	*Journal of Behavioral Finance*	10	49	4.9
7	*Journal of Business Research*	4	33	8.25
8	*Journal of Economic Behavior & Organization*	7	38	5.42
9	*Journal of Electronic Commerce Research*	4	42	10.5
10	*Review of Financial Studies*	4	14	3.5

5.3 Bibliographic coupling of country

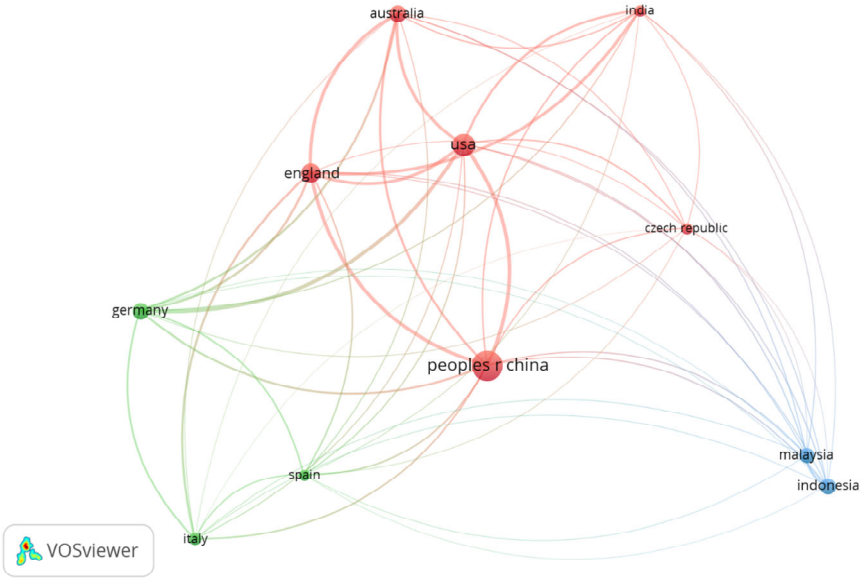
Several countries have their substantial contributions to the fields of behavioural finance and social media. The country with the maximum publications is listed at the top of the list, while the country with the lowest citations is listed at the bottom. In Table 3, the average citations per country along with the total link strength have been calculated. China has the maximum number of publications in the fields of behavioural finance and social media, that is 71 documents with 208 citations and has an average of 2.929 citations per document; hence, it has the lowest average citation per document. But in

Table 3, Australia, with only 21 documents, has 460 citations, and has an average citation per document of 21.90, which is the highest among all other countries. So, Table 3 enables the reader to figure out which country is creating quality documents with a good number of citations.

Table 3 Bibliographic coupling of country

Country	*Documents*	*Citations*	*Average citation per document*	*Total link strength*
China	71	208	2.929	2,373
USA	40	224	5.6	2,833
England	28	223	7.964	2,843
Australia	21	460	21.90	1,870
Indonesia	20	154	7.7	566
Germany	19	138	7.26	1,729
Malaysia	16	147	9.187	624
Italy	12	51	4.25	770
India	11	104	9.454	1,165
Spain	11	197	17.909	644
Czech Republic	10	61	6.1	421

Figure 4 Country bibliographic coupling (see online version for colours)



5.4 Bibliographic coupling of documents

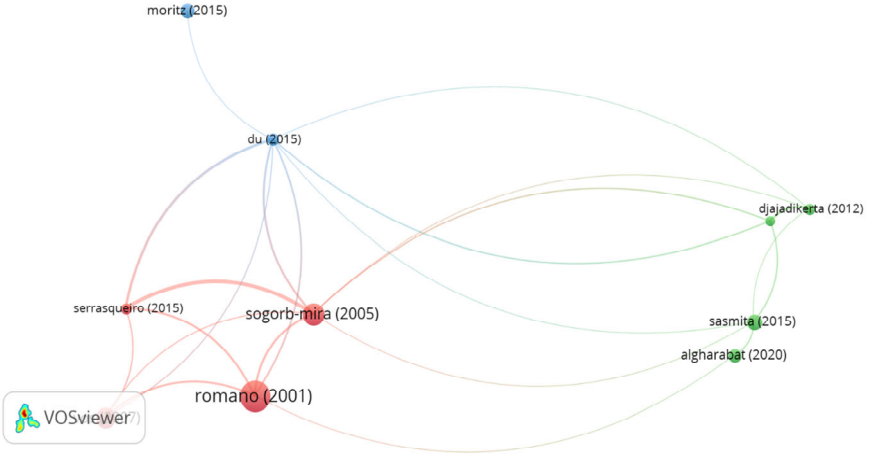
The given map demonstrates the strongest association between van der Horst et al. (2007), Romano and Smyrnios (2001), Serrasqueiro (2015) and Sogorb-Mira (2005) as these authors' studies are based on capital structure and SME's and cite common

references. Associations of authors are shown in red in the visualisation map. The green cluster has the connotation between Algharabat et al. (2020), Sasmita and Mohd Suki (2015), Aerts et al. (2007) and Djajadikerta and Trireksani (2012). Documents that come under the green cluster are constructed on studies associated to marketing and use the concept of brand equity, brand awareness, website disclosures, etc. from 2007 to 2020. Blue cluster has an association with two authors, Moritz et al. (2015) and Du and Banwo (2015), on crowd funding. It contains of three distinct groups. The first cluster gives information about the traditional finance theories and examines the various factors that affect firms' financial decision-making, specifically SME's. The second cluster focuses on social media is influential and most important marketing tool which help the firm to establish its Brand image as it helps to establishing a company's brand name and educating customers about the goods. The third cluster discusses how to build social capital and shows an association between corporate/firm's financial transparency and disclosures on websites.

Table 4 Bibliographic coupling of documents

Document	*Citations*	*Total link strength*
Algharabat et al. (2020)	43	4
van der Horst et al. (2007)	57	13
Du and Banwo (2015)	123	31
Djajadikerta and Trireksani (2012)	45	11
Romano and Smyrnios (2001)	38	27
Serrasqueiro (2015)	280	42
Moritz et al. (2015)	39	1
Sogorb-Mira (2005)	45	43
Aerts et al. (2007)	62	17
Sasmita and Mohd Suki (2015)	149	9

Figure 5 Map of documents bibliographic coupling (see online version for colours)

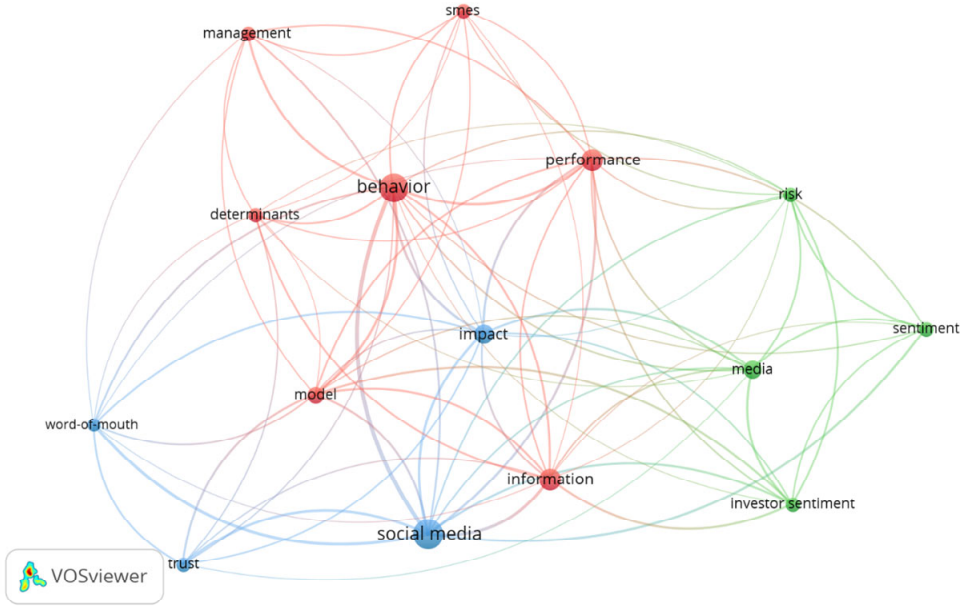


5.5 Keywords co-occurrence

5.5.1 Co-occurrence of keywords

- *Cluster 1:* The first cluster is red in colour and contains the keywords associated with the SME's and their performance. 'Behaviour', with 61 occurrences, is the first keyword with a high occurrence, followed by 'performance', with 35 occurrences. The other considerable keywords are 'determination', 'management', 'SME's', 'model' and 'information'. This cluster has been marked with the red colour. This cluster shows the role of information in the performance of SMEs.
- *Cluster 2:* The second cluster, in green, has the keywords associated with 'media' and 'investor sentiments'. In this cluster, 'media' has 24 occurrences, followed by 'investor sentiment' and 'sentiments' with 17 and 16 occurrences, respectively, and 'risk' with 15 occurrences.
- *Cluster 3:* The third cluster in blue colour has keywords associated with 'social media' and 'impact'. Social media has 65 occurrences followed by 29 occurrences of 'impact'. Other keywords with 17 and 14 occurrences, respectively, are 'trust' and 'word of mouth'.

Figure 6 Results of co-occurrence of keywords (see online version for colours)



6 Limitations

Even though it is a comprehensive study, it has significant limitations. The Web of Science was used to conduct the search, although other databases can provide additional information that was not included in the study. Accordingly, even bibliometric evaluations are constrained by specific aspects that are mostly attributable to how they

are conducted. Appropriate search criteria selection is critical for locating a database including the greatest number of papers on the matter being analysed. If not, the results will be invalid (Cordoba-Cely et al., 2012). To avoid this circumstance, the search was conducted in accordance with the procedures outlined. Additionally, in the author co-citation evaluation, only the first author is included, resulting in the omission of information on co-authors. Additionally, having writers with identical names can influence the outcomes of this type of analysis. In any event, this study attempted to circumvent these constraints by conducting a thorough search and verifying the presence of an accurate match between the names selected from the database and the authors included in the articles under consideration.

7 Recommendations for future research

The objective of the research was to reconnoitre the previous research that has been conducted on social media in the framework of behavioural finance. Though the aim of this research was to explore only those specific articles and documents that shows link between social media and financial behaviour. But most of the studies retrieved are grounded either only on behavioural finance and its association with the factors like psychological biases, herding behaviour, over confidence etc. along with behavioural theories of behaviour finance or in the context of social media investor sentiments, media sentiments, and their effects on market, crowding funding, momentum investment have been discovered. Rather no article has been found on the role of social media tools and platforms while making investment though these tools. Though number of studies have been found on social media platform, but their social media tools are used as marketing tool to build a brand image or create an image about brand in the mind of customer. So, mostly articles in the context of social media are related to the subject of marketing instead of finance. It confirms that social media has widespread in marketing, and there has diminutive research on social media in behaviour finance as how social media tools or platforms help individual investor or retail investors while making investment decisions. The role of financial literacy and digital literacy while opting social media for investment purpose. So, there is a necessity to explore this field of research.

8 Findings and conclusions

This article is an investigation of bibliometric analysis on social media in the literature of behavioural finance. According to the study's findings, research in social media is based on both traditional financial and behavioural research. As a structured review, we're here to compile what's already out there on social media and behavioural finance. The current article conducts a structured review of the field literature using a combination of bibliometric and content analysis. We used bibliometric analysis to determine annual publication trends, the geographical locations of all contributing sources, the contribution of sources by regions, citation analysis, and keyword occurrence analysis. The current analysis demonstrates the history of influential publications and advances the discipline by elucidating the relationships between high-impact studies. Our findings indicate that the most influential books are concentrated in the hands of a small number of researchers.

Nonetheless, as the area continues to expand, many other authors have entered this field. Numerous noteworthy reviews have been written in the last few years. The geographical distribution of the works reveals that China and the USA, with their extremely influential publications, appear to have made the most contributions to this subject. The Czech Republic, India, and Spain are not far behind; these countries have begun to distribute the material as well. *Journal of Asian Finance, Economics, and Business* and *Procedia Social and Behavioral Sciences* are identified as the most productive source in this field.

The study contributes in numerous ways since it is the first to employ a systematic technique, bibliometric analysis, in the context of social media and behavioural finance literature. Second, bibliometric analysis aids in identifying established and emerging patterns in the field of research. Thirdly, the report makes recommendations for future research. Incorporating these materials may provide beneficial insights.

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