MAPPING THE CORPORATE GOVERNANCE RESEARCH IN BRICS ECONOMIES - A BIBLIOMETRIC ANALYSIS

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Abstract   *In recent years, bibliometric analysis as a field of study has captured researchers' interest worldwide. Bibliometric analysis enables one to have data about a particular field of research in one place. In this paper, the authors have attempted to capture insights on the study of bibliometric analysis of corporate governance in BRICS economies. For all companies, and most prominently the publicly traded companies, reliance to the ethos of good corporate governance helps enhance the value of the companies. Corporate governance is an umbrella term indicating all possible areas of best practice to elevate the performance of the companies. BRICS economies have their own set of similarities as well as differences. Bibliometric analysis of corporate governance research is elaborately studied in the context of European and other developed economies. As this kind of study has not been done with reference to the BRICS economies, we had the motivation to conduct this study. From the Scopus database, meta data has been collected for this study. In this study, we reviewed 3,596 research publications during the last three decades, between 1991 and 2020. The increasing trend of publications is observed in corporate governance in BRICS countries using the longitudinal data. Researchers from China rule the chart on the quantum of research done in the field of corporate governance among the BRICS economies. Meta data for ten years is analysed using Biblioshiny and Vosviewer. Using a thematic map, the study of 3,596 documents were divided into four time zones, i.e., 1991-2011 (976 documents), 2011-2014 (612 documents), 2014-2017 (792 documents), and 2017-2020 (1,296 documents). The key themes which emerged were governance and ownership structure (1991 to 2011); stakeholders, corporate social responsibility, and internationalisation (2011-2014); privatisation and investor protection (2014-2017); and audit committee, independent directors, and corporate governance (2017-2020).*

Keywords: *Corporate Governance, Bibliometric Analysis, Keyword Analysis, Thematic Maps, Citation and Co-Citation Analysis, BRICS*

JEL: *G3, G30 and G34*

INTRODUCTION

BRICS, the economic block comprising Brazil, Russia, India, China, and South Africa, presents a powerful bloc[1] due to its robust growth potential. Business reporting practices are largely varied in these economies and there exists heterogeneity in corporate governance practices too. However, BRICS economies are studied jointly in all facets of business and economy. Though there are many cross-country studies on bibliometric analysis of corporate governance research, the cross-country with only BRICS countries has not yet been the subject of bibliometric analysis. Bibliometric analyses is a powerful tool to quantitatively describe academic studies. Through the use of clusters and network, and combination of social network analysis, it assists in exploring emerging themes and existing correlation (Tunger & Eulerich, 2018).

Given this background, detailed analysis of research development in this area will help to understand the multiple aspects of corporate governance discussions

[1] https://www.orfonline.org/research/the-economic-agenda-of-brics-58286/

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in BRICS economies. It will appraise the homogeneity and heterogeneity of corporate governance practices and illustrate current research trends.

Corporate governance has a multi-disciplinary approach, as it can be applied to any area of management, be it government governance, non-government governance, or business governance. This study focuses on the corporate governance research as practiced by the business organisations. Corporate governance has captured the attention of the policy makers, businesses, and researchers as a tool to combat the growing hazards of frauds that lead to diminishing shareholders' wealth.

Formal corporate governance practices in Brazil can be traced to 2000 when the São Paulo Stock Exchange (BM & FBovespa) created three high-governance listings, i.e., Novo Mercado, Level I, and Level II (Black et al., 2014). On the initiation by the Federal Commission on Securities Market, the Russian Government passed 'The Code of Corporate Governance' around 2002 (Yakovlev, 2004). In India, corporate governance has a defined pathway, with the publication of the Kumar Mangalam Birla Committee report in 1996. During the 1990s, China moved towards the present day corporate administration by setting up the Shanghai and Shenzhen Stock Exchanges, and by making another administrative body – the China Securities Regulatory Commission (CSRC) – direct its new stock market (Kang et al., 2008). The complete record on corporate governance in South Africa in the narrow sense of the concept (i.e., within companies) is the King Report on Corporate Governance published in 1994 (Rossouw et al., 2002).

It is interesting to note that all the BRICS economies initiated the formalisation of corporate governance practices in the last decade of the 20th century. Thereafter, alterations and modifications to corporate governance is constantly being carried out to suit the dynamic nature of the business environment. This paper is an attempt to synthesise the extant literature available on studies of corporate governance practices in BRICS.

LITERATURE REVIEW

The study by Denis (2001) tries to address three research questions through review of existing literature for the past 25 years on corporate governance, viz., from where did the agency problem evolve; how does it manifest in the governance system of the firms; and what mechanisms can reduce the agency problem. The study concludes that the corporate governance mechanism has evolved endlessly and is posing a challenge to the researchers on evaluating the governance mechanism of the firms in the context of

embracing more flexibility and adopting such mechanisms.

The study by Hambrick et al. (2008) argues that extant literature focused mainly on principal-agent relationship between shareholders and management, ignoring other aspects of corporate governance. This study tries to map the prior literature which extended its scope to study the various key aspects of corporate governance, like boardroom dynamics, national systems, managerial processes, multiple stakeholders, and managerial values and motives. It tries to answer, through literature review, research questions like what are the antecedents of corporate governance; how corporate governance practices affect corporate and managerial outcomes; and how to improvise the corporate system to derive better outcomes. The study by Filatotchev and Boyd (2009) argues that research themes of corporate governance should be holistic by developing an inter-disciplinary perspective towards corporate governance, like linking corporate governance with resource-based view, behavioural theory, and institutional theory. The study also stresses the need for including the research outcomes of emerging markets, to strengthen the global theory of corporate governance. McNulty, Zattoni and Douglas (2013) conducted a bibliometric analysis on corporate governance studies available in the public domain for the period 1986 to 2011. This study focused on 78 qualitative corporate governance studies. Researchers' interest on corporate governance grew since the 1990s. However, it still remains a narrow segment of research on corporate governance. Studies are, for the most part, investigated by researchers in the UK and Europe, distributed in European journals, and in general, investigated the role of board of directors more than other aspects of corporate governance. This study also describes the enormous scope for research on several lesser explored areas of corporate governance. Zheng and Kouwenberg (2019), in their study, observed that the board of directors play a vital role in the corporate governance of publicly traded firms. Their role is crucial, as they are the gatekeepers of the shareholders. In the bibliometric survey of cross-country research on the role of boards of directors in corporate governance, the study highlights the multi-disciplinary nature of research on boards of directors, encompassing the domains of finance, economics, accounting, auditing, and other allied disciplines. In addition, co-citation investigations uncover the relation between agency theory and ownership structure. This relation provides the base for further study on corporate governance and boards of directors. This study specifically reveals that, regardless of its significance, studies on the contribution of the board towards corporate sustainability are limited. It stresses the requirement for more exploration on this specific theme in the future.

RESEARCH GAP AND RESEARCH QUESTIONS ADDRESSED IN THE PRESENT STUDY

Having referred to the extant literature on bibliometric analysis of corporate governance research, it is observed that there are no studies on the bibliometric analysis of corporate governance research in BRICS. BRICS has an economic bloc of emerging markets playing a significant role in the inclusive and sustainable development of the world economy. Emerging markets are contributing to more than ¾ of the economic growth of the world. Among the emerging markets, BRICS contributes the lion's share. BRICS nations also have a strong determination to strengthen the corporate governance system in their respective countries. Variations in the quality of corporate governance system hamper the strong economic integration of those nations. Against this backdrop, understanding the issues and challenges in improvising the corporate governance system in those nations gains the attention of the researchers, practitioners, academicians, and policy makers. The research works which compare and contrast the corporate governance systems in those economies will be helpful in bringing the BRICS economies on par with respect to the quality of corporate governance system. The present study makes an attempt in this direction by performing a bibliometric analysis of corporate governance research in the BRICS nations.

The present study tries to address the following research questions.

- What are the trends in research on corporate governance in BRICS?
- What are the articles having a persuasive impact on corporate governance research in BRICS?
- What are the trendy themes in corporate governance research in BRICS?
- Who are the most influential authors on corporate governance research in BRICS and what is the present state of collaborative research in this field?
- What is the intellectual structure of present research on corporate governance in BRICS?

METHODOLOGY OF THE STUDY

Sample and Data Sources

For the present study, data sample is sourced from the Scopus database by using the 11 searching words viz., 'Corporate Governance', 'Independent directors', 'Board Independence', 'Board size', 'Board diligence', 'Board meetings', 'board busyness', 'Board Diversity', 'Board of directors', 'Board Governance', and 'Audit Committee'.

The sample is confined to the publications on corporate governance from Brazil, Russia, India, China, and South Africa. The final sample includes 1,890 publications from China; 664 publications from India, 392 publications from South Africa, 389 publications from Brazil, and 261 publications from Russia.

Framework of Bibliometric Analysis

The descriptive analysis is conducted to examine the current trend in the corporate governance research in BRICS. This includes analysis of publications year-wise, country-wise, journal-wise, and author-wise. The most influential articles are analysed based on citation analysis. Global citations measured the total number of citations received for a publication in the Scopus database, whereas local citations measured the total number of citations received for a publication in the analysed collection of the database.

This study used author keywords for the keyword analysis. Frequency analysis of top keywords used in the BRICS countries is illustrated in a tabular form. Keyword occurrence network illustrates co-word analysis, which aims to map and cluster terms extracted from keywords, titles, or abstracts in a bibliographic collection.

The thematic map highlights the different themes in corporate governance in BRICS countries. It applied the clustering algorithm on the keyword network. Each cluster is represented by a particular plot, namely a strategic map.

Co-authorship analysis is done using a scientific collaboration network, which is a network where nodes are authors and links are co-authorships. Co-citation analysis is done using co-citation network, which includes networks nodes (documents) and link edges (co-citation relationships).

Historical direct citation network exhibits the intellectual structure which is represented by chronological citation network. This diagram represents the most relevant citations from the bibliographic collection.

RESULTS OF THE ANALYSIS

Assessing the Quality of the Database Used in the Analysis

Application of Bradford's Law: We discover the presence of Bradford distribution after examining the distribution of

documents across journals (refer Fig. 1 & 2 and Table 1 & 2). The law of Bradford helps identify clearly the journals that can be considered as core journals of a discipline, the journals dealing with a subject regularly, and those that deal with it marginally. Scientific articles related to a certain topic may be divided into three groups of reviews, with a similar number of publications in each group. The number of journals in each of the three groups is distributed in the following proportions: 1: n: n2, where n is defined as the Bradford multiplier. The first (and smallest) group includes the subject's core journals; the second includes those that publish articles on this subject on a regular basis; and the third includes journals that only publish articles on this subject infrequently (Bradford, 1934; Haustein & Tunger 2013).

Table 1: Zone-Wise No. of Sources and Articles

	No. of Sources	No. of Articles
Core Zone	47	1151
Middle Zone	221	1163
Minor Zone	925	1282
Total	1193	3596

Table 2: Frequency Distribution of Authors based on Number of Publications Made by Them

Documents Written	No. of Authors	Proportion of Authors
1	4270	0.762
2	692	0.124
3	257	0.046
4	129	0.023
5	70	0.012
6	48	0.009
7	34	0.006
8	29	0.005
9	18	0.003
10	8	0.001
11	5	0.001
12	6	0.001
13	5	0.001
14	3	0.001
15	1	0
16	2	0
17	4	0.001
18	1	0
19	1	0
20	1	0
21	3	0.001

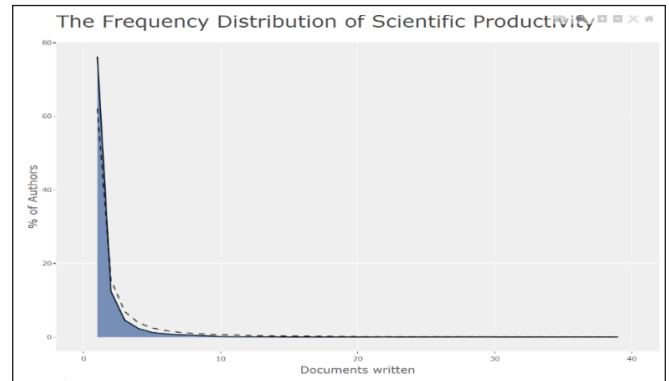| Documents Written	No. of Authors	Proportion of Authors
22	2	0
23	1	0
24	2	0
25	1	0
29	3	0.001
31	1	0
32	1	0
34	1	0

Fig. 1: Frequency Distribution of Scientific Productivity
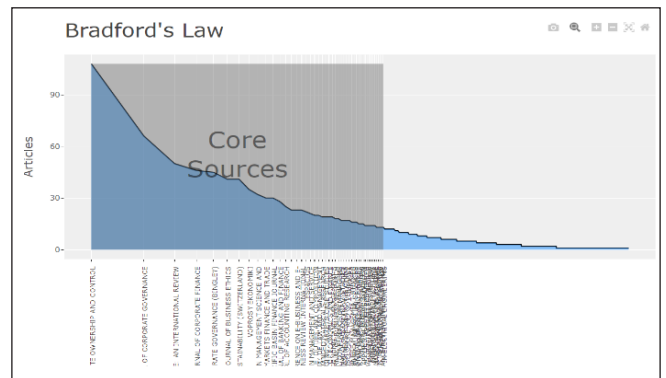

Fig. 2: Journal-Wise Number of Articles Published

When the Bradford law is applied to the current corporate governance database, it shows that a small number of journals contain a majority of the relevant publications, while a large number of journals contain only a few relevant documents. According to Bradford's law, three groups are formed, each with a comparable number of publications. In this case, this means that each group contains approximately 1,000 publications.

Group 1 is made up of 47 journals, including 1,151 documents. Group 1 is core journals and falls in the core zone. Group 2 is formed by combining the next 221 sources totalling 1,163 documents into a single group, the middle zone. The

third group consists of all the remaining sources, which total 1,282 documents, and is grouped into the minor zone. This demonstrates that Bradford's law is applicable in this case and can be applied to the current corporate governance database. It implies that citation indexes can be built using economic criteria and that they are not required to cover a 100 per cent of the journals in a subject area from the start. "Nevertheless, justifiably sound bibliometric evaluations may safely be made on the basis of this data in the knowledge that the core journals of a discipline are included" (Haustein & Tunger, 2013). This shows the database's quality. The database has identified and incorporated journals related to the corporate governance studies in BRICS countries.

Application of Lotka's Law: Lotka's law has been applied when analysing authors' publication output (refer Fig. 2 and Table 2). According to this law, "the number of authors publishing n contributions corresponds to approximately 1/n2 of the number of authors publishing only one contribution" (Lotka, 1926; Haustein & Tunger, 2013). As a result, distributing the number of contributions among authors will result in a skewed distribution. The following result is obtained when Lotka's law is applied to the current corporate governance database. Only the first author of each document was considered in this evaluation. In total, only 382 authors published more than four contributions. Around 257 authors published exactly three contributions, while 4,270 authors contributed only one. The evaluation of publications at the author level is introduced here so that the Lotka distribution can be checked. Lotka's law applies here as well and can be applied to the current database. Based on the application of Bradford's law and Lotka's law, it is possible to conclude that the database's quality is subject to the expected laws (Bradford & Lotka) and thus has a high validity for the current study.

Current Publication Trend in Corporate Governance Research in BRICS

Year-Wise Publications

Table 3 and Fig. 2 present the number of research articles on corporate governance in BRICS nations between 1991 and 2020. From 2009 onwards, a rising trend is reflected with intermittent dips in 2012 and 2013.

Table 3: Publications by Year

Year	Articles
1991	1
1994	1
1995	1

Year	Articles
1996	2
1997	3
1998	1
1999	6
2000	3
2001	9
2002	6
2003	22
2004	25
2005	46
2006	74
2007	69
2008	108
2009	174
2010	174
2011	259
2012	198
2013	192
2014	228
2015	248
2016	280
2017	277
2018	332
2019	359
2020	498
Total no. of articles	3596

Country-Wise Publications

Table 4 shows the country-wise publications on corporate governance in BRICS. Corporate governance has drawn significant attention of the researchers, as indicated by the number of publications from the five BRICS countries. Table 4 enumerates the number of publications country-wise (BRICS nations). China is the top contributor in the area of corporate governance (1,890 publications), followed by India (664 publications), South Africa (392 publications), Brazil (389 publications), and Russia (261 publications). It is noteworthy that China passed its first legislation for corporate governance of corporations in 2006. In the wake of the LPG (Liberalisation, Privatisation, Globalisation) policy initiated in India during 1991, corporate governance received a formal thrust around mid-1996.

Table 4: Country-Wise Publications

Country	No. of Publications
China	1890
India	664
South Africa	392
Brazil	389
Russian Federation	261
Total	3,596

Journal-Wise Publications

Table 5 shows the journals-wise articles on corporate governance. Around 755 articles appeared in 20 journals. The leading journals attracting publications in the area of corporate governance are the Journal of Corporate Ownership and Control, followed by the Indian Journal of Corporate Governance, Corporate Governance, and Corporate Governance: An International Review. The subject of corporate governance is broad and various themes of corporate governance are published in these journals, which matches the broader themes of these journals.

Table 5: Journal-Wise Publications

Sources	Articles
Corporate Ownership and Control	108
Indian Journal of Corporate Governance	73
Corporate Governance (Bingley)	51
Corporate Governance: An International Review	51
Journal of Corporate Finance	48
Sustainability (Switzerland)	44
Journal of Business Ethics	41
Voprosy Ekonomiki	35
International Conference on Management Science and Engineering – Annual Conference Proceedings	32
Pacific Basin Finance Journal	32
Emerging Markets Finance and Trade	31
Journal of Banking and Finance	28
China Journal of Accounting Research	25
2011 International Conference on E-Business and E-Government ICEE2011 – Proceedings	23
Emerging Markets Review	23
Nankai Business Review International	23
Espacios	22
Global Business Review	22
International Journal of Law and Management	22
Emerald Emerging Markets Case Studies	21

Authors-Wise and Organisation-Wise (Authors Affiliation) Publications

Table 6 provides the list of top contributing authors in the area of corporate governance. Li, Y. has the highest number of publications (44), followed by Wang, Y. (39) and Zang, J. (34). It is interesting to note that the top authors in the area of research on corporate governance are majorly from China. This indicates that the Chinese researchers are in the forefront of their contribution.

Table 6: Author-Wise Total Citations

Author	H_Index	G_Index	M_Index	TC	NP	PY_Start
Li, Y.	9	17	0.563	303	44	2006
Wang, Y.	9	26	0.391	709	39	1999
Zhang, J.	7	25	0.389	650	34	2004
Zhang, H.	8	18	0.533	344	33	2007
Zhang, Y.	6	12	0.429	163	33	2008
Chen, Y.	7	11	0.538	161	28	2009
Liu, Y.	7	13	0.438	190	30	2006
Li, W.	8	20	0.533	403	29	2007
Wang, L.	5	13	0.357	181	25	2008
Chen, S.	8	12	0.571	164	25	2008
Von Solms, R.	9	20	0.474	412	25	2003
Zhang, L.	5	9	0.313	89	25	2006
Liu, X.	5	15	0.357	228	23	2008
Li, X.	4	13	0.286	188	23	2008
Li, J.	4	9	0.25	87	21	2006
Maroun, W.	8	16	0.889	258	21	2013
Wang, X.	5	6	0.357	39	21	2008
Zhang, X.	6	10	0.353	117	21	2005
Liu, H.	4	8	0.308	67	20	2009
Li, Z.	6	15	0.5	252	19	2010

Most Influential Articles on Corporate Governance from BRICS

Table 7 and Fig. 3 present the top research publications, based on global as well as local citations. Global citation indicates how many times a particular article is cited by other works in the database. It includes research works in other areas and disciplines. Local citations indicate an article's prominence within the network of 788 articles. According to global citations, Johnson, 2000, had a maximum of 775 citations, followed by Wang, 2008, with 423 citations. Among the local citations, the work of Bai, 2004, had the maximum citations of 79, followed by Chen, 2006, with 75 citations. This was followed by Xu, 1999, with 70 citations.

Table 7: Global and Local Citations of Articles

| Authors	Title of the Paper	Year	Local Citations	Global Citations	LC/GC Ratio (%)	Normalised Local Citations	Normalised Global Citations
Bai, C-E., 2004	Corporate governance and market valuation in China	2004	79	342	23.10	18.77	12.51
Chen, G., 2006	Ownership structure, corporate governance, and fraud: Evidence from China	2006	75	368	20.38	22.88	14.23
Xu, X., 1999	Ownership structure and corporate governance in Chinese stock companies	1999	70	399	17.54	5.19	5.48
Jiang, F., 2015	Corporate governance in China: A modern perspective	2015	55	159	34.59	45.07	15.46
Berkman, H., 2009	Expropriation through loan guarantees to re-lated parties: Evidence from China	2009	41	180	22.78	32.80	21.34
Wang, Q., 2008	State ownership, the institutional environment, and auditor choice: Evidence from China	2008	40	423	9.46	20.19	23.66
Arora, A., 2016	Corporate governance and firm performance in developing countries: Evidence from India	2016	38	78	48.72	37.32	11.78
Balasubra-manian, N., 2010	The relation between firm-level corporate gov-ernance and market value: A case study of India	2010	38	101	37.62	27.82	13.43
Johnson, S., 2000	Corporate governance in the Asian financial crisis	2000	36	775	4.65	3.00	2.94
Dwivedi, N., 2005	Corporate governance and performance of Indian firms: The effect of board size and ownership	2005	33	76	43.42	11.42	2.90
Ding, Y., 2007	Private vs. state ownership and earnings management: Evidence from Chinese listed companies	2007	31	195	15.90	14.15	10.50
Kato, T., 2006	Executive compensation, firm performance, and corporate governance in China: Evidence from firms listed in the Shanghai and Shenzhen stock exchanges	2006	31	137	22.63	9.46	5.30
Douma, S., 2006	Foreign and domestic ownership, business groups, and firm performance: Evidence from a large emerging market	2006	31	293	10.58	9.46	11.33
Sarkar, J., 2009	Multiple board appointments and firm perfor-mance in emerging economies: Evidence from India☆	2009	30	102	29.41	24.00	12.09
Sarkar, J., 2008	Board of directors and opportunistic earnings management: Evidence from India	2008	28	103	27.18	14.13	5.76
Garg, Ak, 2007, Vikalpa	Influence of board size and independence on firm performance: A study of Indian companies	2007	28	46	60.87	12.78	2.48
Berkman, H., 2010	Political connections and minority-shareholder protection: Evidence from securities-market regulation in China	2010	27	141	19.15	19.77	18.75
Liang, Q., 2013	Board characteristics and Chinese bank perfor-mance	2013	26	118	22.03	27.15	14.45
Li, W., 2010	Corporate social responsibility, ownership structure, and political interference: Evidence from China	2010	26	225	11.56	19.04	29.92
Xu, N., 2014	Excess perks and stock price crash risk: Evi-dence from China	2014	25	115	21.74	28.66	15.93
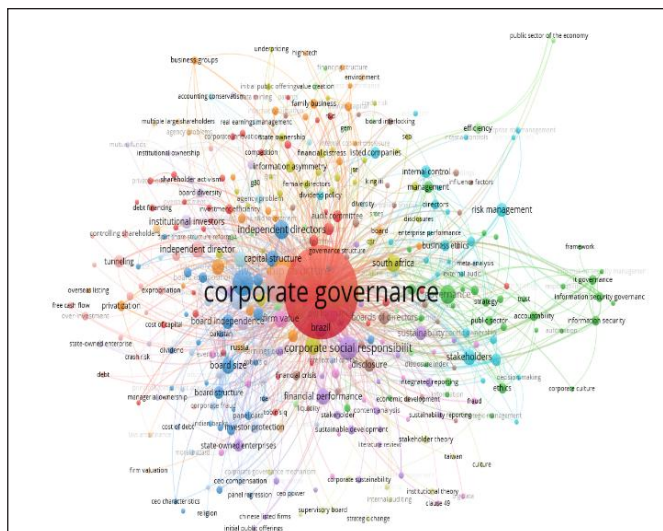
Fig. 3: Global and Location Citation Network

The Themes of Corporate Governance Most Popular among the Scholars in BRICS

Keyword Analysis

Table 8 and Fig. 4 show the frequency of occurrence of keywords. To explore the popular themes within corporate governance, we conduct keyword and keyword co-occurrence analysis. This is justified because corporate governance is a wide term which includes a multitude of aspects of research under it. The second most-often used keyword is China. This reveals that most of the research pertaining to corporate governance in BRICS nations originates from China. Apart from corporate governance and China, the other top ten most frequently occurring keywords are board of directors, firm performance, ownership structure, India, corporate social responsibility, earnings management, governance, independent directors, agency theory, South Africa, and firm value. This suggests that most of the studies on the area of corporate governance are on the parameters on which the firm performance depends. Even corporate social responsibility, which is voluntary in many countries, has an impact on corporate governance. As Fig. 4 shows, apart from corporate governance, capital structure is the second most prominent node in the network, highlighting its relative importance in the domain of corporate governance.

Table 8: Frequency of Occurrence of Top Keywords

Key Words	Occurrences
Corporate Governance	1516
China	243

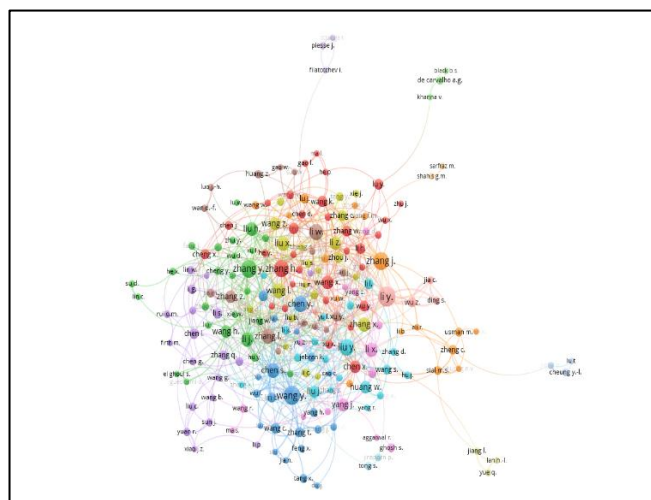| Key Words	Occurrences
Board of Directors	138
Firm Performance	123
Ownership Structure	117
India	116
Corporate Social Responsibility	99
Earnings Management	67
Governance	64
Independent Directors	61
Agency Theory	57
South Africa	54
Firm Value	53
Board Size	52
Brazil	52
Financial Performance	51
Emerging Markets	50
Performance	48
Capital Structure	47
Independent Director	47

Fig. 4: Keyword Co-Occurrence Network

Thematic Maps

This study divided the raw data into four time periods to understand the thematic evolution of corporate governance research in BRICS countries (refer Fig. 5). The total number of documents are classified automatically by R-Script, depending on the number of documents, into four zones. As a result, the total number of papers in this study was 3,089, which was divided into four time zones: 1991 to 2011 (976 documents), 2011 to 2014 (976 documents), 2014 to 2017 (976 documents), and 2017 to 2020 (976 documents).
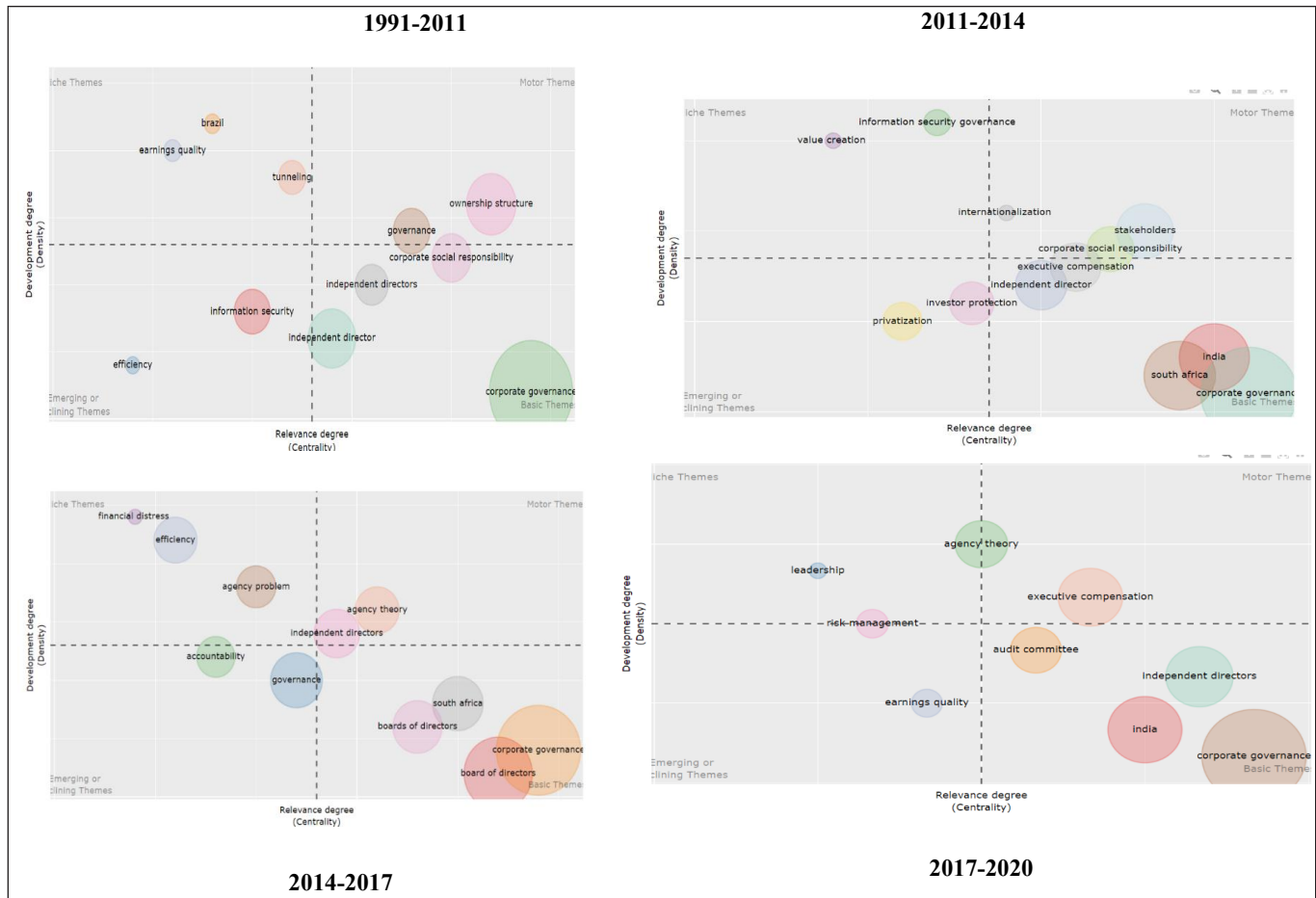
Fig. 5: Thematic Map

Thematic maps are divided into four quadrants, each of which represents a different typology of topics, depending on their centrality and density. The centrality means the importance of theme in the entire research in this figure, whereas density is the measure of the theme's development. The presence of themes in the upper-right quadrant implies a high degree of centralisation and density. The upper-left quadrant depicts highly developed, isolated, or niche themes with high density and low centrality. Emerging or fading ideas are depicted in the lower-left quadrant, with low density and centrality. The lower-right quadrant, which indicates high centrality and low density, depicts basic and transversal concepts.

Thematic Map from 1991 to 2011: A strategic map for each sub period (Fig. 5) shows how numerous themes evolve throughout the time in terms of centrality and density. The strategy map for the first sub-period (1991-2011) reveals that academics first paid close attention to governance and ownership structure, and several studies ascribed the rise in corporate governance to the growth of governance research.

Initially, the theme of governance and ownership structure fills the high centrality-high density sector. In the beginning, tunnelling and earning quality were less developed. During the 1991-2011 sub-period, efficiency and data security were emerging notions. Corporate governance, independent directors, and corporate social responsibility were transversal concepts.

Thematic Map from 2011 to 2014: Stakeholders, corporate social responsibility, and internationalisation became the driving themes in the second sub-period (2011-2014), occupying the high centrality-high density quadrant (refer Fig. 5). Corporate governance became the focus of attention and a number of studies were conducted to examine its significance. During the second sub-period, corporate governance, independent directors, and corporate social responsibility became transversal concepts. In the second sub-period, information security and efficiency were considered as emerging themes, and a few specialist studies of earning quality and tunnelling were discovered.

Thematic Map from 2014-2017: In the third sub-period (2014-2017), privatisation and investor protection become an emerging theme (refer Fig. 5). Executive compensation, independent directors, and corporate governance studies became transversal due to higher centrality index values. Furthermore, Indian and South African publications became transversal in this period. Stakeholders, corporate social responsibility, and internationalisation content themes occupied the right-hand quadrant of the strategic map, depicting high centrality and high density. This indicates that stakeholders, corporate social responsibility, and internationalisation themes became the major contributor of corporate governance research during the sub-period 2014-2017. There are also specialist studies on information security governance and value creation themes within this time period.

Thematic Map from 2017-2020: The audit committee, independent directors, and corporate governance have all become transversal concerns, while earning quality has become a diminishing subject in research. The executive compensation theme takes up the top right-hand quadrant of the strategic diagram, indicating the theme's increasing prominence. The rising spherical size reflecting executive remuneration reflects scholars' increased interest in this topic.

Most Influential Authors on Corporate Governance in BRICS and the Present State of Collaborative Research on Corporate Governance in BRICS

The co-citation network layout structure is considered a circle. This study uses the association strength algorithm which is in the automatic layout in Vosviewer. The centre of the cluster in the co-citation diagram represents strongly connected nodes, whereas the edge of the cluster represents the loosely connected nodes. Outliers are represented by the isolated nodes. The co-citation network diagram illustrates four clusters, represented by four different colours. Red represents the first cluster, which includes 227 items. Blue represents the second cluster, which includes 219 items. Next, green represents the third cluster, which includes 195 items and yellow represents the fourth cluster, which includes 138 items.

Historiographical mapping is named historiographical analysis and historiography. This diagram represents the

most relevant citations, using the chronological mapping method. With the Biblioshiny software, this study generated a plot which includes the most productive 16 articles. Fig. 8 exhibits the chronological changes of research trends in the 2011 to 2020 period.
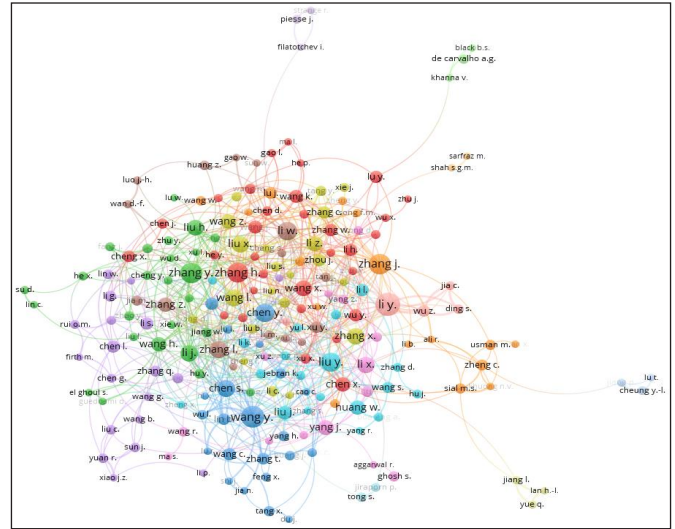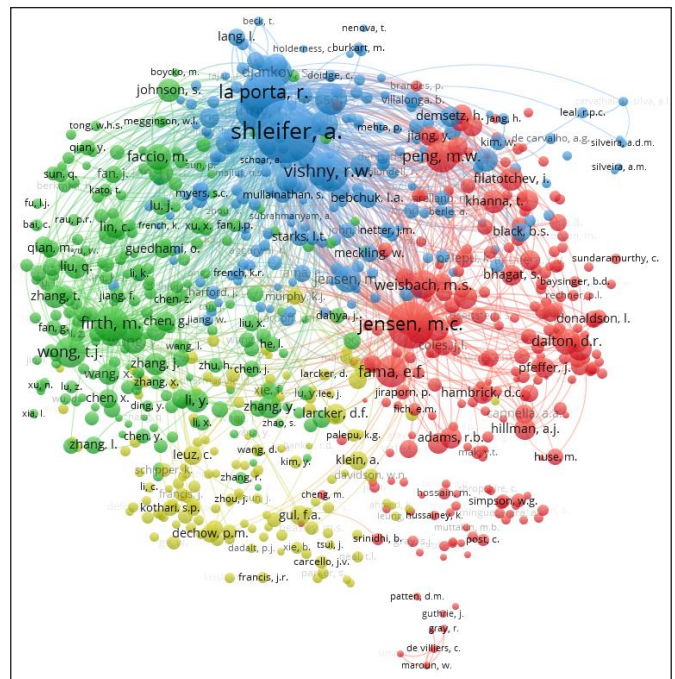

Fig. 6: Co-Authorship Network
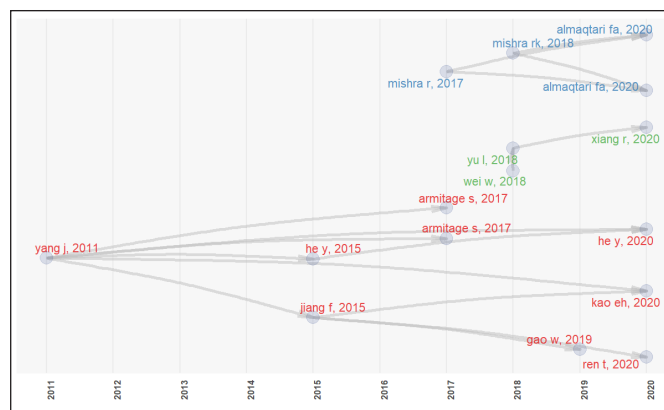

Fig. 7: Co-Citation Network

Fig. 8: Historiography

CONCLUSION

The main objective of the present study is to obtain a broad understanding of the research trends in corporate governance in BRICS countries through citation analysis, co-citation analysis, and cluster analysis. In this study, we reviewed 3,596 research publications during the last three decades, between 1991 and 2020. The increasing trend of publications was observed in corporate governance in BRICS countries using the longitudinal data. The number of publications drastically increased in 2020, with a total of 625 publications, compared to the 385 in 2019. There is an expectation to increase the number of publications in 2021, due to the continuous increasing trend. China has more than 50% of the publications, compared to the other BRICS countries, in terms of number of publications, as well as number of citations. More than 90% of articles are written in English. Mean collaboration index of 1.77 authors per article indicates that the publications related to corporate governance in BRICS countries were written by many authors. Keyword analysis conducted in this study reveals that most of the authors used corporate governance and board of directors as author keywords. This study maps the conceptual structure of corporate governance in BRICS countries using co-word analysis. Executive compensation emerges as the most promising topic within the corporate governance research field. Additionally, this study mapped the intellectual structure of corporate governance research field using co-citation analysis. This analysis exhibited four clusters. Finally, this study identifies historic trends in corporate governance research.

The findings of the study are useful to the researchers in spotting trending themes in corporate governance research in BRICS, and also in exploring the areas which demand more research. The findings are useful to the practitioners in providing their services to the firm to monitor and improve the quality of corporate governance system. The findings draw the attention of the representatives of BRICS in initiating various measures to strengthen the corporate governance system, which may lead to effective economic integrations of BRICS countries.

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