Journal of Information & Optimization Sciences
ISSN 0252-2667 (Print), ISSN 2169-0103 (Online)
Vol. 47 (2026), No. 6, pp. 2435–2452
DOI : 10.47974/JIOS-2198

Optimizing corporate governance attributes to reduce bankruptcy risk : A comprehensive bibliometric analysis

Shilpa Thakur *
Priyanka Agarwal †
Department of Human Resources
Amity Business School
Amity University
Noida 201303
Uttar Pradesh
India

Anil Kumar Goyal §
Department of Commerce
Maharaja Agrasen Institute of Management Studies
Rohini 110086
New Delhi
India

Abstract

In the volatile, uncertain, complex, and ambiguous (VUCA) world, there are numerous factors that leads to an organization failure, *inter-se*, corporate governance plays a critical role in corporate failure. Number of extant literatures have focused on the relationship between corporate governance and corporate failure. However, there is a dearth to analyze and interpret the research trend of the published literature on a subject over a time period. The aim of this paper is to present the bibliometric analysis on the research done on corporate governance attributes that lead to corporate bankruptcy. Among the other corporate governance attributes, director's characteristics, board characteristics, audit committee and CEO duality are the most eminent factors that leads to corporate failure. The results are based on 406 research papers that are published on Scopus database. Findings show significant increase in research trends on the concerned topic since 2010. Methods used for the bibliometric analysis are descriptive analysis, citation, co-citation, co-author analysis for interpreting the trend and results. This study ought to identify research trends and predict

* *E-mail:* **shilpathkr2011@gmail.com (Corresponding Author)**
† *E-mail:* **pagarwal5@amity.edu**
§ *E-mail:* **anilgoyal20@gmail.com**

© Taru Publications

emerging trends that would be helpful for future researchers and experts who are interested to study the relationship on corporate governance and corporate bankruptcy.

Subject Classification: *91G40, 90B50, 68T30.*

Keywords: *Corporate governance, Bankruptcy risk, Financial distress, Bibliometric analysis, Governance mechanisms, VOS viewer.*

Introduction

Bankruptcy is defined as a failure of the firm to repay its outstanding debts. Research on bankruptcy prediction had started as early as in 1966 [1], [2]. Large number of researchers have worked on the above topic since then. Bankruptcy studies are usually divided among three areas. First area includes understanding of Bankruptcy laws prevailing in the country [3], [4] or comparative studies of such laws among two or more nations [5], [6] Second area include understanding the factors that could lead an organization to bankruptcy. Third area comprises of the predictive models that are being framed by the researchers which could predict future bankruptcy in the organizations [2], [7], [8], [9], and [10].

Reasons for failure of the organizations could be numerous as some of them could be Earning Management Practices [11], [12], [13]. Corporate Governance Practices [14], [15], [16], Financial parameters [16], [17] and many more.

Among the large number of factors responsible for the ill-health of an entity, one of the prominent factors is Corporate Governance Practices followed by the corporates that affects to and controlled by various stakeholders. Corporate Governance is a mechanism by which an organization is directed and controlled by the stakeholders. Stakeholders appoint board of directors, who governs the firm by 4 principles of corporate governance: accountability, transparency, fairness and responsibility. When good corporate governance practices are not followed, company may not be able to achieve its goals and objectives, run into financial loses and ultimately collapse.

In this paper, we will analyze the existing academic literature on corporate governance attributes leading to bankruptcy realizing a dearth area. This study is structured as follows: First section discusses literature review about corporate governance attributes and bankruptcy. Second section discuss about the research methodology used. Third and Fourth section would be Descriptive and Bibliometric Analysis respectively. Last

section would discuss about the Conclusion, Limitations and future scope of the study.

Review of Literature

This part of the paper presents the brief review of studies related to the importance of Bibliometric Analysis, its relationship with corporate failure and Corporate Governance.

Bibliometric Analysis

Bibliometric Analysis is the meticulous method for understanding and analyzing large volumes of data. It requires software such as Gephi, Leximancer, VOS viewer and databases such as Scopus, Web of Science [18].

Bibliometric Analysis in Corporate Failure

Corporate failure and decline are area of interest of many researchers in recent times. Some of the bibliometric studies done so far include the bibliometric study for intelligent techniques of bankruptcy prediction [19], to evaluate models which measures bankruptcy risk [20] and Organizational Failure and Decline [21]. It is very important to understand the factors which can a lead an organization to become bankrupt. These factors could be related to Financial Factors, Earnings Management practices and corporate governance Factors. Apart from these, many other factors could be responsible for downfall of an organization.

Bibliometric studies in Corporate Governance

The primary research in the field of Corporate Governance was based on principal agent relationship. But now, Corporate Governance is much wider area of study. It includes numerous aspects such as Board of directors, Audit Committee, Stakeholders, ESG reporting, Corporate Social Responsibility and so on. Corporate Governance is one of the basic and most important factors which could be rectified with ease by reframing the Corporate Governance practices of an organization.

Very few studies have been published on bibliometric analysis in corporate governance. One of the recent studies explores the interaction of corporate governance and leadership [22]. This study uses research papers published in Scopus and were analyzed using Vos Viewer software to study the interplay between corporate governance and leadership.

None of the previous bibliometric studies have been conducted on the bankruptcy prediction and corporate governance factors. This provided an opportunity to explore an untouched research area.

Filling this gap would provide insight about what are the research trends on this topic and also what governance factors are most important for the financial wellbeing of an organization. This research would provide comprehensive results that would be beneficial for the students, researchers and industry experts, who lay down the corporate governance policies for their organization.

Research Methodology

Due to frequent economic recessions in different countries at different point of time, (currently Germany undergoing recession, 2023) organization failure is the topic which is of interest to research scholars in recent times.

In this study, bibliometric analysis of research papers published in SCOPUS database from year 1989 to 2022 is done. Primary Keywords used for the research includes Bankruptcy; Default; Insolvency; Financial failure; Financial Distress. The unsuccessful business organizations are defined in different ways to show their economic and managerial problems. In literature, five generic terms are used such as failure, insolvency, default, insolvency and distress. These terms are often used reciprocally [23], [19]. Secondary keywords used for studying Corporate

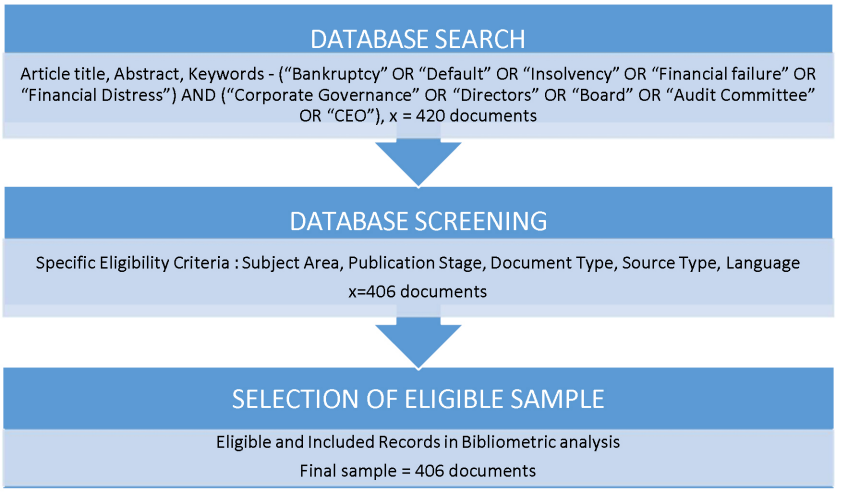


Figure 1

Workflow of Research, Source: Original work by researchers.

Governance are Corporate Governance; Directors; Board: Audit Committee: CEO. Boards (including directors) have major role to maintain the solvency of the company [14], [15], [24], [25], and [26]. Audit committee characteristics such as committee size, meeting frequency, literacy, have significant impact on financial distress of an organization. [27], [28]. CEO Duality and other CEO characteristics also have impact on financial health of the company [29], [30].

For Bibliometric analysis, structured search and workflow strategy was followed. This was divided into three steps: database search, database screening and selection of eligible sample.

To explore among numerous titles, abstracts and keywords available in Scopus, the search string used was ("Bankruptcy" OR "Default" OR "Insolvency" OR "Financial failure" OR "Financial Distress") AND ("Corporate Governance" OR "Directors" OR "Board" OR "Audit Committee" OR "CEO") 420 research papers were obtained and then the database screening was done based on parameters such as subject area - (a) business, management and accounting (b) economics, econometrics and finance; publication stage – final; document type- article/research paper; source type- journal; language – English. We choose to include research papers between 2010 and 2022. After applying these screening factors, 402 final set of research papers was obtained for analysis. This is depicted and explained in Figure 1 above.

Data Extraction

Once the data was retrieved, the next step was to extract the data. Data selected for our study was downloaded in .csv file. Data hence obtained was analyzed in

1. Mircosoft excel (Descriptive analysis)
2. VOSViewer (Bibliometric analysis)

Microsoft excel is a part of Microsoft Office, and is a spreadsheet on which user can do calculations, make pivot tables, show graphical and visual illustrations. Microsoft excel is used to carry out descriptive analysis. Descriptive analysis uses data to establish trends and relationships [31].

VOSviewer is a software used for construction, visualization and analysis of bibliometric network. These network comprises of authors, journals, publications, etc. The function of VOS viewer is to display large bibliometric data in easy to understand way [32].

Data Analysis and Discussion

To understand the trend and relationship between corporate governance and corporate bankruptcy, following analysis has been undertaken.

Evolution of Publications

Bankruptcy related research has been the favorite topic of researchers in the latest years. Number of publications were very less since 1991, some years had 0 publications (1990, 1992) on bankruptcy and corporate governance factors. Maximum number of publications (51 publications) occurred in year 2021, followed by years 2022 (46) and 2020 (44) as per graph 1.

The Figure 2 can be studied by dividing it into 2 eras- Pre 2010 era and Post 2010 era. Prior to 2010, based on the flow of research between corporate governance and corporate bankruptcy, very less studies were done on corporate bankruptcy and corporate governance. But after subprime crisis that occurred in United states in 2008, the number to studies on the topic increased sharply. This shows that the awareness is increasing to know about the corporate governance practices which could be harmful for the organization in the long run. More researchers are now taking corporate governance factors in account while performing bankruptcy studies.

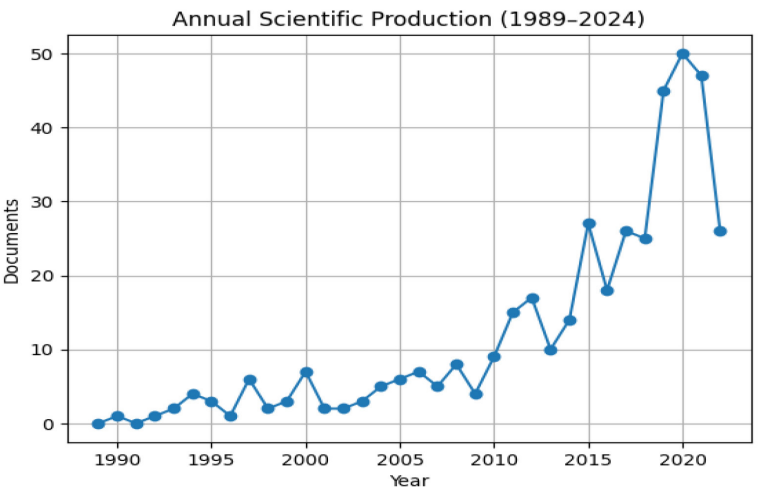


Figure 2

Number of research articles published in Scopus indexed journals since 1991. Source: Scopus website

Documents by Country

As it is clearly evident from below Figure 3, maximum number of publications were from United States of America (124), followed by UK (51), China (35), Australia (31) and Malaysia (27), out of 406 research papers published. India is on 10th position with 12 research papers. Interesting fact to note here is out of 12 research papers, 8 papers are published after 2020. There could be many reasons for this. First, Post Covid, many of the organizations have suffered losses. Researchers may want to identify if corporate governance factors are responsible for it. Second, owing to recession in various other countries, Researchers may have become proactive about the bankruptcy filing that could happen in near future. On the contrary, developed country United states of America, having highest number of publications had started this research way back in 1993 and is consistent in this over the period of years, but has increased considerably after 2010, due the great recession that occurred in 2008. Such researches are also very useful for big organizations in every country for determining their corporate governance policies.

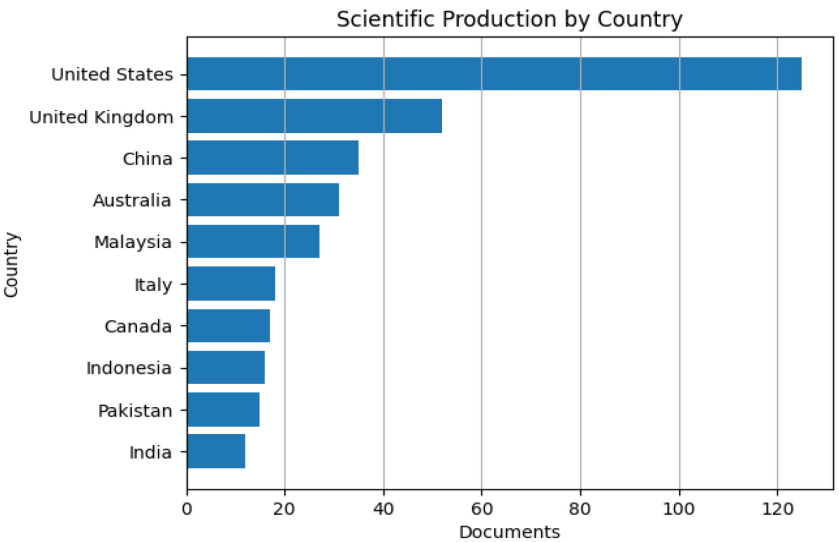


Figure 3

Country-wise research articles published in Scopus indexed journals. Source: Scopus website

Keywords

Keywords of a research paper are the integral part of the paper. It tells about the topics covered in the research paper. Frequently used keywords in different research papers of a particular research area determine the research trend and help the researchers and policy makers in identification and analysis of the research topics [33].

The list of keywords used most frequently in our data is given below in Table 1. Financial Distress and Bankruptcy are our Primary keywords and hence it was expected that they will occur in top 10 keyword list. Now, Corporate Governance and Board of Directors are our secondary keywords, so they are also in top 10 keyword list.

New keywords that we have obtained are Earnings Management, Financial Crisis, Agency Theory, Capital Structure, Corporate Social Responsibility and China. Financial distress is positively related to Fraudulent Financial Reporting (FFR) and this FFR is done by Earnings Management which occurs due to bad governance practices such as fraud proxies, multiple directorships, and audit quality [34]. Voluntary adoption of corporate governance theories help in reducing financial distress [35]. One such important corporate governance theory is Agency theory. Agency theory factors such as CEO non duality, low CEO compensation become the reason for company to fall into bankruptcy [36]. Relationship between CSR and financial distress of the firm is dependent on Corporate Governance Policies of the firm. Firms with strong Corporate

Table 1

Top 10 Keywords in Research papers. Source: Scopus website

S. No.	Keyword	Number of research papers
1.	Financial Distress	147
2.	Corporate Governance	90
3.	Bankruptcy	25
4.	Earnings Management	21
5.	Financial Crisis	14
6.	Agency Theory	12
7.	Board of Directors	11
8.	Capital structure	11
9.	Corporate Social Responsibility	11
10.	China	10

Governance Policies have inverse relationship between CSR and Financial Distress [37]. Financial Crisis in an organization pushes it into bankruptcy.

Bibliometric Analysis Citation Analysis

Citation analysis is the analysis of impact and quality of an article, research paper, author based on number of times author or his work is cited by other in their document. It tells us the relative impact of the author [38].

For Citation Analysis, Map is created by data exported from Scopus website in .csv file. Type of Analysis chosen was "Citation" and Unit of Analysis was "Documents". All the research papers are taken into account as minimum number of citations of a document is selected to be "0". Next, 406 items were not connected to each other. Largest set of connected items was found out to be 235. So, for the preparation of the map, 235 documents were considered.

Map with Citations and linkages of 235 documents is shown in Figure 4 below and Table 2 shows Documents with Top 10 Citations in 406 Scopus items. Maximum number of citations are of gilson s.c.(1989) whose paper was titled as Management turnover and financial distress followed by defond m.l.(1998) and paul a. (1994)

Table 2

Top 10 Research papers Citations. Source: Vosviewer

S. no.	Documents	Citations
1.	ittner c.d. (1997)	527
2.	gilson s.c. (1989)	521
3.	defond m.l. (1998)	452
4.	paul a. (1994)	425
5	carcello j.v. (2000)	423
6.	deangelo h. (1994)	421
7.	yermack d. (2004)	407
8.	john t.a. (1993)	403
9.	Kroszner r.s. (2001)	223
10.	gilson s.c. (1997)	221

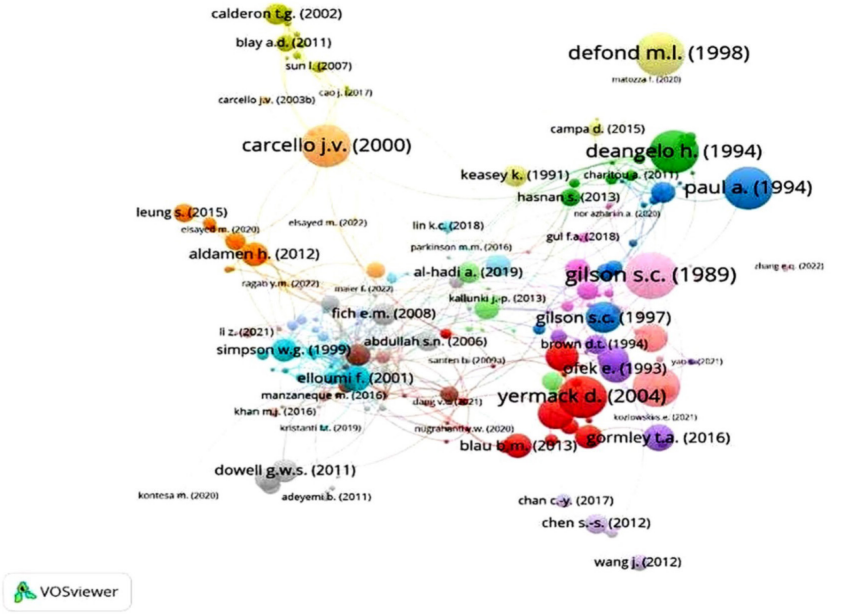


Figure 4

Citation Linkages Map in Research Paper Scopus Data. Source: VOSviewer

Reference Co-Citation Analysis

When 2 documents appears in reference list of third document, this is called reference co-citation. When document X and document Y appear together in references of document Z, they are said to be related to each other. The relationship between both of them becomes stronger if they are cited together in more number of articles or documents [39].

Minimum number of Citations a research paper has is chosen to be 12. So, reference co-citation map as shown in Figure 5 comprises of only 15 authors out of 23450 cited references. The resultant map consists of 2 clusters (red colour and green colour) are seen in picture below. In the picture below, author that has largest node is Altman [2]. He had published the paper on the topic financial ratios, discriminant analysis and the prediction of corporate bankruptcy in the year 1968. It has maximum number of co-citations (41) with other authors. This means out of 402 research papers of corporate governance mechanisms and Bankruptcy, 41 have cited this paper of calculation of Z score ratio. Same number of co-citations have been observed in another research paper whose title is Can

corporate governance save distressed firms from bankruptcy? [40]. Node size is same as it has same number of co-citations. Third paper on the picture with prominent node is The modern industrial revolution, exit, and the failure of internal control systems [41]. The interesting fact here to note is that out of 15 papers appearing on the map of co-citation analysis, 13 papers are written before 1990. This means in recent times no such study has been conducted which has good co-citation network.

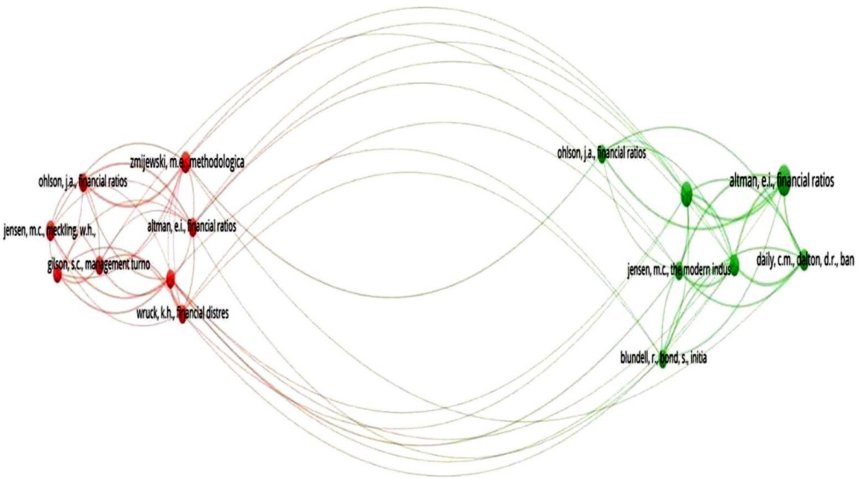


Figure 5

Co-Citation Linkages Map in Research Paper Scopus Data. Source: VOSviewer

Co-Authorship Country Analysis

Co-author analysis is the analysis which depicts 2 authors that work together on a particular topic. Two researchers are considered connected if they have co-authored a paper [42]. Co-authorship can be on Individual level or Country level. Country Co-authorship is an important form of co-authorship. It tells us degree of communication among two countries. [43].

Large nodes represent countries with large number of publications. i.e. United States, United Kingdom, China, Australia, Malaysia. Bigger the size of the node, number of publications are also more. Yellow United States node is the largest depicting maximum number of publications from the country. United states have largest number of publications (123),

maximum citations (6448) and maximum link strength (41). This is followed by United Kingdom and China.

In Figure 6, it is seen that China, India, Pakistan, Italy have publications but they are yellow in color which shows these countries have published the research papers in 2020s and after, which means research scholars in these countries have shown interest in Corporate Governance and bankruptcy in recent times whereas United States, United Kingdom had publications prior to 2014 also, which means these countries have historical contributions in research in this field.

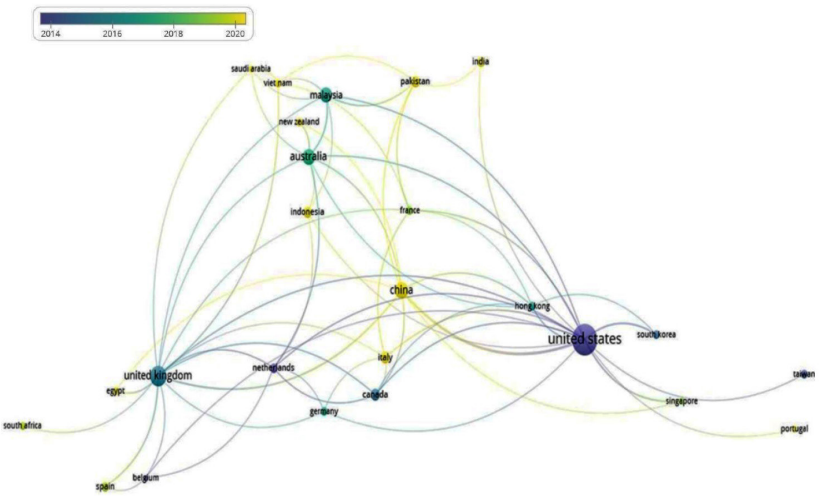


Figure 6

Country Co-authorship Linkages Map in Research Paper Scopus Data. Source: VOSviewer

Text Mining Analysis

For understanding the research trends of past and present and to predict the upcoming trends in a particular research area, Text Mining Analysis is done by using VOSViewer software. Type of Analysis selected is Co-Occurrence Analysis and Unit of Analysis is: All Keywords. Minimum number of occurrence of keyword is selected to be 5. The main keyword used is financial distress and then corporate governance, as these keywords have the biggest nodes in the diagram. These results are same as we have obtained in Keyword Analysis in MS Excel. Difference between excel and bibliometric method is Bibliometric visual display map can

show us the trends in the topic. Historical topics are depicted in blue and purple color as shown in Figure 7 such as capital structure, agency theory, board of directors, etc. Recently researched topics are shown by yellow color. These topics are board independence, Credit Risk, Corporate social Responsibility, Gender Diversity, etc.

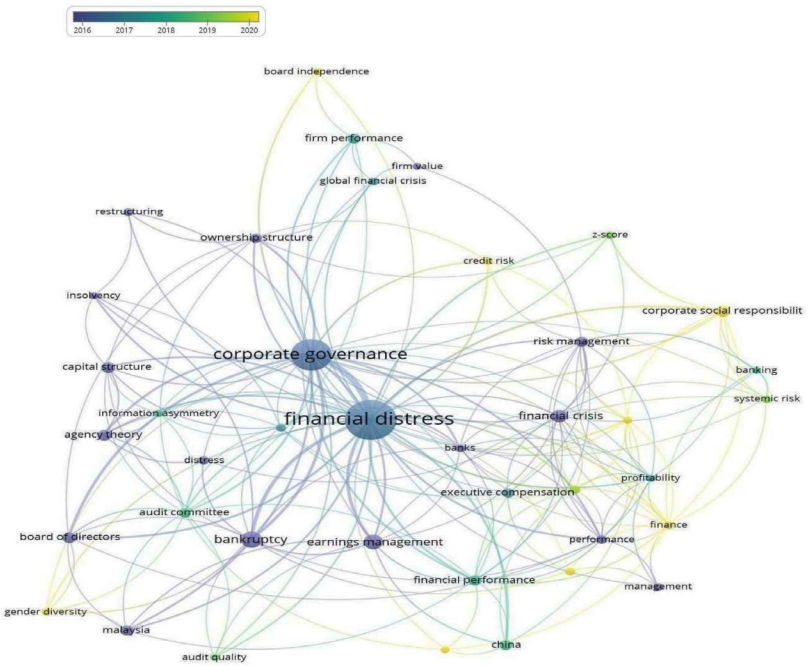


Figure 7

Keyword Co-Occurance Linkages Map in Research Paper Scopus Data. Source: VOSviewer

Conclusion

Corporate failure is one of the emerging topic in recent times due to business failures. Firms fail due to several factors, one of them is corporate governance. Corporate governance factors which could impact corporate organization performance are directors' characteristics, audit committee characteristics, CEO duality, board characteristics. This bibliometric study is carried out using VOS viewer software and various conclusions can be drawn. First, research on insolvency of firms has increased in past last decade and is growing at fast pace. Prior to 2010, less researches were

published on this topic but after 2010 there is a considerable increase in number of publications. This coincides with the fact that in year 2007-2008, there was a financial crisis/recession in many parts of the world and there was a need to identify what factors have pushed the organizations into failure.

Second, United States of America has maximum number of researches in this field followed by the other countries. One of the prominent reason for this is developed country United States of America has rich database available for the researchers which is easy available for their study. It is also seen that United States of America has highest Author collaborations as well. Author collaborations among countries increase quality of work many fold. So, researchers must collaborate cross borders to come out with unique and meaningful researches. New ideas can be laid down for corporate governance mechanisms through this method.

Third, Keyword analysis and Text mining have made us aware about the keywords that used most frequently. Apart from his, research trends are obtained on corporate governance and bankruptcy in recent times. Most recent researches use keywords such as: board independence, Credit Risk, Corporate social Responsibility, Gender Diversity, etc. Future researchers can use these keywords in their research and think beyond them.

The major contribution of this study is to provide insights to bring new knowledge in the field of bankruptcy with respect to corporate governance factors. In earlier times, financial ratios were most important tool to determine firm failure, (Altman [2]). But now, other factors have gained equal importance and they play equal role in determining health of the firm. Corporate Governance factors are one of them and results yielded by them are very significant. Therefore, it is very important to study bankruptcy prediction via corporate governance parameters. This study helps in theoretical development of research in the field of bankruptcy. Scholars and Researchers can identify main research topics and uncover trends and opportunities in this field.

This research has following limitations which provide opportunities to the future researchers. First, this research is based on Scopus Database. In future, research studies from other databases such as Web of Science can be taken into account. Second, this research only covers one of the factors or reason for corporate failure. Future researches may be carried out taking more factors into account that lead to corporate failure. Third, more bibliometric tools could be applied on this research to make it more extensive and intense in future.

These limitations pave way for future researchers to carry out the research on corporate governance factors that could lead a company to bankruptcy and benefit the nation as a whole.

References

[1] W. H. Beaver, "Financial ratios as predictors of failure," *Journal of Accounting Research,* vol. 4, pp. 71–111 (1966), doi: 10.2307/2490171.

[2] E. I. Altman, "Financial ratios, discriminant analysis and the prediction of corporate bankruptcy," *Journal of Finance*, vol. 23, no. 4, pp. 589–609 (1968).

[3] E. Berkovitch and R. Israel, "Optimal bankruptcy laws across different economic systems," *Review of Financial Studies*, vol. 12, no. 2, pp. 347–377 (1999).

[4] B. Branch and A. Khizer, "Bankruptcy practice in India," *International Review of Financial Analysis*, vol. 47, pp. 1–6 (2016).

[5] C. Pochet, "Institutional complementarities within corporate governance systems: A comparative study of bankruptcy rules," *Journal of Management and Governance*, vol. 6, pp. 343–381 (2002).

[6] B. J. Kattadiyil and C. P. Mehboob, "Corporate insolvency in India and other countries – A comparative study," *Editorial Board*, vol. 9, no. 7 (2020).

[7] J. A. Ohlson, "Financial ratios and the probabilistic prediction of bankruptcy," *Journal of Accounting Research,* vol. 18, no. 1, pp. 109–131 (1980), doi: 10.2307/2490395.

[8] M. E. Zmijewski, "Methodological issues related to the estimation of financial distress prediction models," *Journal of Accounting Research,* vol. 22, no. 1, pp. 59–82 (1984), doi: 10.2307/2490859.

[9] T. Shumway, "Forecasting bankruptcy more accurately: A simple hazard model," *Journal of Business*, vol. 74, no. 1, pp. 101–124 (2001).

[10] S. A. Hillegeist, E. K. Keating, D. P. Cram, and K. G. Lundstedt, "Assessing the probability of bankruptcy," *Review of Accounting Studies*, vol. 9, no. 1, pp. 5–34 (2004).

[11] B. M. Franceschetti and C. Koschtial, "Do bankrupt companies manipulate earnings more than non-bankrupt ones?," *Journal of Finance and Accountancy*, vol. 12, p. 1 (2013).

[12] K. Agrawal and C. Chatterjee, "Earnings management and financial distress: Evidence from India," *Global Business Review*, vol. 16, no. 5, pp. 140S–154S (2015).

[13] E. Séverin and D. Veganzones, "Can earnings management information improve bankruptcy prediction models?," *Annals of Operations Research*, vol. 306, no. 1, pp. 247–272 (2021).

[14] J. M. R. Fernando, L. Li, and Y. Hou, "Corporate governance and default prediction: A reality test," *Applied Economics*, vol. 51, no. 24, pp. 2669–2686 (2019).

[15] A. K. Mishra, S. Jain, and R. L. Manogna, "Does corporate governance characteristics influence firm performance in India?," *International Journal of Disclosure and Governance*, vol. 18, no. 1, pp. 71–82 (2021).

[16] A. Banu, A. Aisha, A. Rahman, and M. Murari, "A study on financial performance of Nifty 50 Indian companies with strong corporate governance," *Journal of Information and Optimization Sciences*, vol. 46, no. 8, pp. 2403–2412 (2025).

[17] E. Acosta-González, J. Fernández-Rodríguez, and S. Sosvilla-Rivero, "Predicting corporate financial failure using macroeconomic variables and accounting data," *Computational Economics*, vol. 53, pp. 227–257 (2019).

[18] C. Serrano-Cinca, B. Gutiérrez-Nieto, and J. Blasco, "The use of accounting anomalies indicators to predict business failure," *European Management Journal*, vol. 37, no. 3, pp. 353–375 (2019).

[19] N. Donthu, S. Kumar, D. Mukherjee, N. Pandey, and W. M. Lim, "How to conduct a bibliometric analysis: An overview and guidelines," *Journal of Business Research*, vol. 133, pp. 285–296 (2021).

[20] Y. Shi and X. Li, "A bibliometric study on intelligent techniques of bankruptcy prediction," *Heliyon*, vol. 5, no. 12, p. e02997 (2019).

[21] V. Grosu, A. Horodnic, and M. Bostan, "Bibliometric analysis of the literature on evaluation models of bankruptcy risk," *Strategic Management Journal,* vol. 44, no. 11, pp. 2875–2899 (2023), doi: 10.1002/smj.3498.

[22] A. Kücher and B. Feldbauer-Durstmüller, "Organizational failure and decline: A bibliometric study," *Journal of Business Research*, vol. 98, pp. 503–516 (2019).

[23] C. Țîmbalari, A. Dinu, and M. Ionescu, "Clustering corporate governance and leadership: A bibliometric analysis," *Studies in Business and Economics*, vol. 19, no. 1, pp. 255–275 (2024).

[24] E. I. Altman and E. Hotchkiss, Corporate Financial Distress and Bankruptcy. *New York, USA: Wiley* (2010).

[25] H. Platt and M. Platt, "Corporate board attributes and bankruptcy," *Journal of Business Research*, vol. 65, no. 8, pp. 1139–1143 (2012).

[26] N. Siswanto and F. Fuad, "The impact of audit committee characteristics on financial distress," *Diponegoro Journal of Accounting*, vol. 6, no. 2, pp. 117–125 (2017).

[27] K. O. Appiah and C. Amon, "Board audit committee and corporate insolvency," *Journal of Applied Accounting Research,* vol. 18, no. 3, pp. 298–316 (2017).

[28] A. F. Darrat, S. Gray, and B. Parkash, "Corporate governance and bankruptcy risk," *Journal of Accounting, Auditing & Finance*, vol. 31, no. 2, pp. 163–202 (2016).

[29] Z. Li, Y. Wang, and L. Deng, "Predicting the risk of financial distress using corporate governance measures," *Pacific-Basin Finance Journal*, vol. 68, p. 101334 (2021).

[30] N. T. Carr, "Using Microsoft Excel to calculate descriptive statistics and create graphs," *Language Assessment Quarterly*, vol. 5, no. 1, pp. 43–62 (2008).

[31] N. Van Eck and L. Waltman, "VOSviewer: A computer program for bibliometric mapping," *Scientometrics*, vol. 84, no. 2, pp. 523–538 (2010).

[32] W. Lu, J. Li, and H. Yang, "Detecting research topic trends by keyword frequency," *Information Processing & Management*, vol. 58, no. 4, p. 102594 (2021).

[33] S. Hasnan, R. A. Rahman, and H. Mahenthiran, "Management motive, weak governance, earnings management, and fraudulent financial reporting," *Journal of International Accounting Research*, vol. 12, no. 1, pp. 1–27 (2013).

[34] S. Miglani, A. Ahmed, and S. Henry, "Corporate governance structure and financial distress," *Journal of Contemporary Accounting & Economics*, vol. 11, no. 1, pp. 18–30 (2015).

[35] S. Kanojia and S. Gupta, "Bankruptcy in Indian context," *Journal of Management & Governance,* vol. 26, no. 4, pp. 1201–1241 (2022), doi: 10.1007/s10997-021-09582-2.

[36] M. Farooq, M. A. Rauf, and S. Zaman,"Corporate social responsibility and financial distress," *Social Responsibility Journal*, vol. 19, no. 2, pp. 123–140 (2023).

[37] L. I. Meho, "The rise of citation analysis," *Physics World*, vol. 20, no. 1, pp. 32–36 (2007).

[38] G. Surwase, S. S. Jadhav, and R. B. Patil, "Co-citation analysis: An overview," *International Journal of Information Technology and Knowledge Management*, vol. 4, no. 2, pp. 229–235 (2011).

[39] E. M. Fich and S. L. Slezak, "Corporate governance and bankruptcy," *Review of Quantitative Finance and Accounting*, vol. 30, pp. 225–251 (2008).

[40] M. C. Jensen, "The modern industrial revolution and failure of internal control systems," *Journal of Finance*, vol. 48, no. 3, pp. 831–880 (1993).

[41] S. Uddin, L. Hossain, and K. Rasmussen, "Trend and efficiency analysis of co-authorship network," *Scientometrics*, vol. 90, no. 2, pp. 687–699 (2012).

[42] H. Liao, Z. Tang, and Y. Luo, "Bibliometric analysis of medical big data research," *Sustainability*, vol. 10, no. 1, p. 166 (2018).

[43] H. Liao, M. Tang, L. Luo, C. Li, F. Chiclana, and X. J. Zeng, "A bibliometric analysis and visualization of medical big data research," *Sustainability,* vol. 10, no. 1, p. 166 (2018).

Received November, 2025